

An organization of retirees of the Water Resources Division, U.S. Geological Survey, who seek to keep in touch with each other and with their former agency.

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MOUNT ST. HELENS CONTINUES IN THE NEWS

Presenting a feature article on engineering features of the recent Mount St. Helens eruption, the August issue of Civil Engineering magazine gave prominence to the importance of a Geological Survey report of 1978 (Bulletin 1383C, "Potential Hazards from Future Eruptions of Mount St. Helens Volcano, Washington") that had correctly analyzed the type of volcanic eruption that might well occur at Mount St. Helens and had further predicted that it could be expected to occur in this century. **** The University of Washington has established a scholarship in the name of David A. Johnston, Univ. of Wash. graduate (PhD) and Geological Survey scientist who was lost in the May 18 eruption of Mount St. Helens (N.L. 28, p. 1). The scholarship honors Johnston's inventiveness, originality in scientific analysis, and his dedication to the understanding of geologic processes. **** The Division's program in the Mount St. Helens area - devoted to a redefinition of the hydrologic systems devastated by the eruptive forces, the ash deposits and erratic glacial melts - likely will become one of the most varied in the country. It should be a challenging experience for the participants who are documenting the hydrologic impact of natural forces observable for the first time in the USA.

AGENCY ACTIVITIES AND PERSONNEL

As it looks ahead into the next five years, WRD hopes to be able to give additional emphasis to: (1) supplying information regarding ground water contamination from waste disposal; (2) study of the hydrology of the Arctic regions; and (3) expansion of the water-use data program. The Survey's budget for the year that began on October 1 has not yet been acted upon by Congress and may not be until late in November. In his statement in the September issue of the USGS Newsletter, Director Menard advises that future increases in appropriations may be so modest that, with the impact of inflation, there may be an actual decline in "real funding." He states also that, because of ceilings on full-time staff positions, the Survey may be required to continue to place increasing reliance on other-than-permanent employees and on contracted services.

Notice: Please inspect the address label on this newsletter. If you find there is a "79" in red ink, your dues are in arrears for 1979 and 1980. (\$2 for each year.) If a red "80" appears, you owe only for 1980. You may wish to include 1981 dues also, at the same rate.

Another notice: See page 8 for information regarding the WRD annual dinner dance at Arlington, Virginia, on November 22. You are invited.

Distinguished service awards were presented to Harry Barnes, recently retired Chief, Surface Water Branch, and to Hal Langford, Associate Chief Hydrologist, by the Secretary of the Interior on October 21. The Secretary also presented a valor award to Thomas H. Filley, a hydrologic field assistant in the Central Region Headquarters. On July 8, Tom rescued, at great danger to himself, a hiker who had fallen into a turbulent mountain stream near Boulder Falls, Colorado, at a point only 25 feet from the head of a series of deadly rapids. **** Bill Back, researcher in geochemical constituents in ground water for the Northeastern Region, is senior editor of "Contemporary Hydrogeology."

Recent announcements of individuals to fill some of the Division's key positions: John Bredehoeft, formerly Research Hydrologist is Regional Hydrologist, Western Region **** James L. Cook, formerly Assistant Regional Hydrologist, Southeastern Region, is now Regional Hydrologist **** John R. George, who was District Chief, Georgia District, is Regional Program Officer, Southeastern Region **** Stanley P. Sauer, District Chief, Tennessee District, will be moving soon to the Surface Water Branch, National Center. **** Ren Jen Sun, Ground Water Specialist, Northeastern Region, will be reassigned soon to the Ground Water Branch, National Center **** Kenneth L. Wahl, Menlo Park, California, has been selected to fill the position of Surface Water Specialist, Central Region **** Roger C. Wolff, who was Research Hydrologist, Northeastern Region, has moved to the position of Deputy Assistant Chief for Research, National Center.

NEW SURGE IN RETIREMENTS

Retirements from WRD through October 16, which have not been announced in recent issues include: Harry H. Barnes, Jr., Chief, Surface Water Branch, National Center on August 22. **** Verne K. Berwick, Subdistrict Chief, Juneau, Alaska, on August 30. **** Robert Brennan, Hydrologist, Lakewood, Colorado, on September 27. **** James E. Bowie, Subdistrict Chief, Montgomery, Alabama, on September 19. **** Alvin J. Feulner, Hydrologist, Anchorage, Alaska, on August 30. **** Jay R. Foulk, Supervisory Hydrologic Technician, Sacramento, California, on July 26. **** Prentis M. Frye, Hydrologist, Richmond, Virginia, on October 17. **** Jane B. Hill, Hydrologic Technician, Jackson, Mississippi, on August 29. **** Richard E. Hoggatt, Hydrologist, Indianapolis, Indiana, on August 29. **** Elnora E. Johnson, Clerk Typist, Cheyenne, Wyoming, on July 26. **** James R. Jones, Chief, Office of International Hydrology, National Center, on August 23. **** William Kam, Hydrologist, Trenton, New Jersey, on September 30. **** Edward R. Leggat, Regional Ground Water Specialist, Menlo Park, California, on October 31. **** Hallard B. Kinnison, Regional Manpower Specialist, Menlo Park, California, on October 31. **** Oliver E. Leppanen, Research Physicist, Bay St. Louis, Mississippi, on August 29. **** Doris B. Luethi, Administrative Clerk, Miami, Florida, on August 29. **** Frederick K. Mack, Hydrologist, Towson, Maryland, on August 31. **** Glenn T. Malmberg, Hydrologist, Lakewood, Colorado, on August 30. **** Elizabeth E. Messick, Head Secretary, Ground Water Branch, National Center, on August 29. **** Dale V. Mitchell, Supervisory Hydrologic Technician, Oklahoma City, Oklahoma, on August 1. **** Walter A. Maurant, Hydrologist, Albuquerque, New Mexico, on August 29. **** Paul Nady, Hydrologist, Sacramento, California, on August 30. **** Roy Newcome, Jr., Regional Reports Specialist, Menlo Park, California, on October 31. **** Marvin W. Pilgrim, Hydrologic Technician, Mt. Vernon, Illinois, on July 8. **** Samuel E. Rickley, Mechanical Engineer, Bay St. Louis, Mississippi, on August 29. **** Robert S. Sigafos, botanist engaged in plant growth-hydrology relationships, N.E. Region, on November 10. **** Marvin W. Skougstad, Hydrologist, Lakewood, Colorado, on August 30. **** Robert E. Smith, Subdistrict Chief, Houston, Texas, on September 19. **** Sherman G. Thompson, Hydrologic Technician, Raleigh, North Carolina, on August 30. **** Ernest G. Wollin, Subdistrict Chief, Statesville, North Carolina, on August 30. (There are indications that an additional number of WRD personnel may retire subsequent to this canvas and prior to the end of November.)

NEWS ABOUT RETIREES

I. E. "Andy" and Kathryn Anderson appear to be so busy with local activities that we wonder how they found time for a trip to Nova Scotia last June. Andy writes columns for two weekly papers and two monthly publications, is publicity chairman for the Lions Club and the Chamber of Commerce and sits on the boards of both organizations. He is also on the Board for the Barnett Reservoir Area Beautification Council. Kathryn keeps busy with her garden club and other such organizations and both serve on their church board. **** Horace Babcock is heading East again (N.L. 27; p. 4), this time to Bangladesh where he will spend 5 to 6 weeks in October and early November as a water consultant for the World Bank. **** Frank Barrick, former WRD Administrative Officer, visited former associates at National Center on September 29. He then spent a week with a cousin on the latter's farm near Harrisonburg, Virginia. In July, Frank and his sister, who lives nearby in Bradenton, Florida, visited family members and toured cities in a number of widely-spaced states under an Eastern Airlines Unlimited Travel Plan. **** Frank Bell, in reference to the memoir on Astley B. Purton (N.L. 28; p. 7), recalls that the Purtons had two sons in addition to the two daughters and that "the four were quite a handful as we found out from time to time when we stayed with them during Purton vacations."

Richmond Brown, who was Associate Chief of the Alaskan District at the time of his retirement earlier this year, and wife Lee have "moved south." (New address in directory supplement, this issue.) Richmond writes: "I am sure that no one who knows us well will be surprised to know that we have retired here in northern Michigan. We are working hard to finish our house, but living in our vacation cottage for the present, probably through the winter. This is the house that Del Brown, Chuck Robinove, Ken Vanlier, and Gerth Hendrickson helped us put together many years ago. The house that we are building hopefully will have adequate space for all of our many crafts and interests to be pursued. Although we are periodically forced to use the car for an extended trip we manage to do all our shopping by bicycle. We have a tandem with a trailer as well as our stable of single bicycles. We look forward to skiing in the winter and using the local dial-a-ride bus system that connects all towns in the counties in the northern part of the state. I look forward to seeing WRD people at the meetings of the Technology Division of the National Water Well Association, and the Reston, Virginia, staff when we visit our younger son who lives in Greenbelt, Maryland." **** Berniece Canzona, technical publications editor for the Colorado District at the time of her retirement at the end of 1978, has many good things to say about Pahrump, Nevada, as a spot to retire in. Having now lived there since March 1979, she finds it "a quiet place to live with the most marvelous people. Our little valley is beautiful and smog free . . . However, such a place can't be kept secret for long, and we are growing at a tremendous rate. I dread the day when the first traffic-signal light will be installed." Berniece's sister from Rochester, New York, who came to visit her last winter, "fell in love with the climate, and by March had bought a home here and has come to stay. For you golfers, Pahrump has a championship golf course . . . they say the Calvada course rates second best in southern Nevada. So come try it out!"

From R. Elton Cook comes this graphic account of the rigors of maintaining a "problem gaging station in Arizona in the 1940's: "While in Arizona, I thought the station on Little Colorado R. at Grand Falls was the proverbial 'Thorn--.' That was before I was introduced to Willow Creek near Park View, N. Mex (1940). Poor access, over graded but not drained roads. I've spent twilight to 11 p.m. jacking car, hauling rocks, brush -- remainder of night shivering and hoping ground would freeze enough so I could get out. OR, up at 0500 and into station over frozen roadway, hoping to be out before thawing. OR, at times, go the few miles where road had been broken thru snow, rent horse and tie snow shoes behind saddle, ride until horse couldn't progress, then snow-

shoe to station. Once I slogged 7 miles in mud, carrying 6-8 pounds of mud on each boot. Trying to kick it off, or clean with tools proved to be more work than carrying the extra load. Snowmobiles were not yet developed, and would have been of limited use because of many fences and broken country. Some relief was finally realized by rental of high-wheeled farm tractors. The gaging station was a bit primitive. Cable was stretched over a turbulent pool (we corrected that). Spring runoff, diurnal, might range from 30 to 500 cfs -- complicating measuring. Winter ice up to 17 inches. I took Nedra on a field trip, parked on canyon rim and 'mountain-goated' to station. It was a mistake; after that she always worried when I was on a field trip. Heron Dam now rests where gage used to be. Heron Reservoir stores transmountain diversion water and is an extremely popular recreational area. Engineer Heron worked hard to promote this project but never lived to see it; his son worked for USGS a short time."

Jane and Joe Cragwall report "a delightful trip in July through Marion, Virginia, and Knoxville, Tennessee, to attend wedding of Lisa, daughter of John and Margaret Randolph of Nashville District, to David Turner on July 19. A beautiful wedding of two beautiful people! En route, a night at Marion, Virginia, with Grady and Virginia Anderson and one of Grady's renowned spaghetti dinners, as well as a round of golf at Holston Hills Country Club at which Grady played the role of perfect host by keeping his score respectfully high enough to not embarrass his 'hacking' guests." A second night at Kingston, Tennessee, and a nice visit with Greta and Bernie Frederick from Oak Ridge. "Bernie is playing the professor role at University of Tennessee, enjoying it, and working harder than ever, according to Greta." Jane and Joe report a happy return through Knoxville by having dinner with Betty Hill, "a charming and versatile member of the Knoxville WRD office. The Randolph wedding at Nashville brought together many active and retired members of Nashville WRD, the latter including T.J. and Norma Quarles and Mary and Dick Perkins." The visit to Nashville was the first in several years for Jane and Joe and they appreciated the reunion with many former coworkers and a round of golf with Virginia and Stan Sauer at Brentwood Country Club, also a "homecoming event."

Ken and Kay Darmer enjoyed a 10-day tour of Spain in late August. Ken had been in Morocco for a month-long investigation of small hydro sites in the High Atlas and Rif area as part of an AID renewable-energy project. The field work involved spending several days with the Berbers in remote villages, with native food and lodging, mule transport, etc. Kay joined Ken for the last week in Morocco prior to leaving for Spain. **** Gladys and Bill Hearne spent the latter half of September touring Ireland by bus "or by coach, as they would say, from Shannon all around the western and northern coasts, through the Midlands and back down the east and southern coasts. We saw them making Celtic crystal, Donegal tweed and processing Connemara marble into jewelry and other ornaments and furnishings. We enjoyed the quaint towns with winding streets, one dating back to 325 BC, and the leisurely pace of the people. The tour was ended with a medieval banquet in the McNamara Castle." **** Sumner and Tommy Heidel took a 12-day driving tour of Ontario during September, visiting Ottawa, the Thousand Islands and other localities in Canada that they had not seen on earlier trips. **** Lee Holt, who retired last May from his position as SE Region's program officer, spent August and September in Jordan setting up a program for the assessment of the nation's ground water resources. Lee, working under AID support, anticipates periodic future visits there as a coordinator to assist local hydrologists in utilizing computer techniques to expedite the work.

Walt and Win Durum say they thoroughly enjoyed their week in Bermuda in the latter part of September and tend to agree with Mark Twain who wrote: "Some folks want to get to Heaven; I'd rather live the rest of my life on this island." They found Bermuda "a friendly, modern, and well-manicured vacation spot with a good share of the World's white and pink architecture. Transportation is excellent and inexpensive, both by water and land, and mopeds are everywhere on the good but narrow black-top roads, and

young and old zoom around like robots." ***** On August 15, seven local WRD retirees and spouses joined eight members of the Ocala subdistrict and families for a Florida-type fish fry at the Ocala Boat Basin. Attending retirees: Eugene Brown, Dick Heath, Dick Hedges, Billie Leake, "Doc" Pride, Merle Wesley, and Ken Young. The 130 fish filets, grits, and hush puppies provided by organizer Dick Heath, were soon disposed of as were the many other foods brought by the 38 attendees. We have learned that Dick's freezer is being replenished. He and his 83-year old Dad spent several days in mid-September fishing in the Kissimmee River basin and caught "a nice string of Florida black bass each day."

Chuck Hembree and wife of Arlington, Texas, visited with former WRD associates in Palo Alto, California, in July. Chuck began his WRD-QW career in Lincoln in 1948 and later joined the Salt Lake City (1957) and Texas (1962) districts. Since 1967 he has been with the Environmental Protection Agency. **** Nebraska's "worst summer since 1936" kept Don and Claire Hungate close to home and air conditioning but they planned a California trip during the fall. **** Al and Ruth Johnson visited WRD friends at the National Center on October 3. They were driving as far north as Massachusetts with several stops to visit family members. Al has been busy completing a family history begun by his late brother. With considerable research they have developed a biographical background of their father who migrated from England in the late 1800's as an indentured worker, joined the U.S. Army for service in the Indian Wars in the West, and because of a rigorous program of self study qualified for admittance to Michigan State University. **** Charles Keech comments: "Here in Lincoln we spent a very exciting summer of 1980 breathing heavily waiting for the cold front. Weather forecasters continually assured us that it was coming, but to keep us continually in wild anticipation the cold front never came. We suspect the front became stationary from the hot air generated by the political campaign. We're sure that after November cooler heads will prevail, especially those without hats. We recommend the Great Plains for summer fun in the sun, you will feel so good when you return home."

Walter Langbein, J. R. "Digger" Jones, and John Kammerer (planner-hydrologist at National Center) were contributors to a 3-year study of the world's population, resources, and environment in the year 2000, which was requested by President Carter. The Council on Environmental Quality which directed the multiagency study has now published the findings under the title: "Global 2000 Report to the President." **** Ben Lofgren writes concerning the new directory and newsletters: "It's fun to hear the where abouts and who dunits of the almost forgotten." Ben also says: "Things are going great in Sacramento. Am working half time as a senior geologist with Woodward-Clyde Consultants in San Francisco. Just enough to keep out of trouble and in a lot of hot water."

In behalf of his many friends among the WRD retirees, we wish Ed McCarren a speedy recovery and the ability to let memories of a most harrowing experience fade into the past. Ed, a chemist with WRD's Philadelphia subdistrict until his retirement in 1972, was abducted by two men as he was about to park his car at his apartment building in Chestnut Hill, Philadelphia on the afternoon of September 12. He was then driven about 20 miles to a wooded area near Downingtown, tied, gagged, and shot in the head. Regaining consciousness, Ed freed himself and found his way out of the woods. A nearby resident called the police and Ed was taken by ambulance to a hospital where the bullet was removed from his head. Norm Beamer reports that he talked with Ed late in September and that he had made a good recovery. The Philadelphia Daily News of September 12 reported that one of Ed's abductors was apprehended at a Sears store when he attempted to make a purchase with Ed's credit card. Ed and wife Regina have an apartment at Morgan House, 7600 Stenton Avenue, Philadelphia, Pennsylvania 19118.

Charlie and Doris McDonald, together with about 1000 other residents of Sun City, Arizona, spent nearly 3 months at Logan, Utah, last summer. "We attended classes for

5 weeks at Utah State University on subjects of special interest to retired people - review of science in the 1970's, current events, the economy, national defense, etc."

**** Ray Nace is the editor of a translation from the Russian text of "World Water Resources and Their Future," which has recently been published by the American Geophysical Union. Says AGU: "This translation is a major contribution to the advance of knowledge about the hydrologic cycle." **** Our Central Region representative, Irene Paulsen, reports that "A group of happy, relaxed, unorganized, retired (mostly) WRD employees from the Denver region meet almost every week for lunch. Some of the news at their last meeting might be of interest: Frank and Helen Ames are planning a trip to Japan very soon; Marvin Skougstad announced his forthcoming retirement at the end of August; Ty and Madge Dover obliged a recent houseguest who had never seen snow with a trip over Trail Ridge Road, where there has been snow aplenty this year. Frank Swenson related that his daughter will soon leave for the Ivory Coast of Africa where she will do missionary work. Stan and Ruth Lohman were expecting the Bill Powells to arrive within a day or two, and Frank Visser and Ken Rennick conned me into submitting their dues for membership in WRD Retirees."

Felix and Margaret Pauszek spent the month of September in Germany and Austria including attendance at a performance of the Passion Play at Oberammergau in Bavaria. Mary and Earl Peterson spent two beautiful weeks last July on a tour of the Canadian Rockies. "Our first stop was Calgary where we went to the Stampede and especially enjoyed the Chuck Wagon races. Then on to Banff, Lake Louise, the Columbia Ice Field and Jasper, staying at the beautiful Jasper Lodge. From Jasper we continued across Canada to Vancouver and Vancouver Island and then back to Calgary for the flight home." **** Bill Powell, Alabama District Chief prior to his retirement last January, appears to be enjoying the life of a consultant and especially the challenge of preparing material for legal cases. Bill is Vice President in charge of technical operations for P.E. LaMoreaux and Company.

Merle and Audrey Schroeder, with daughter Mae Fern, enjoyed a month of touring that took them to Merle's 49th High School Class Reunion ("where the MC figured we must be the youngest couple there, as we were the only ones with a 12-year old daughter.") Then to the Black Hills "to have another look at Mt. Rushmore which was being sculptured while I was living in Rapid City." With stops in Colorado, they attended the International Contest of Barbershops Quartets and Choruses where "my old Buckeye Chorus of Columbus did quite well in placing 8th out of 16. At home in Fayetteville, Arkansas, the Schroeders enjoy twice-yearly visits from their two sons who live in Ohio. **** Robert E. Smith, Chief of WRD's Houston subdistrict at the time of his retirement on September 19, is now Vice-President of the consulting firm of Farmer and Winslow, Inc. and will be located at its Houston office. **** Miner B. Stackpole reports that he is "enjoying retirement very much, with no dull moments between my tennis, golf, and bowling, and some civic duties."

George Taylor spent most of September on Grand Comores, the largest of the four islands of the Comores group lying between the northern part of Madagascar and the east coast of Africa. As a United Nations consultant, George identified promising locations where fresh ground water might be recovered from wells. The topography of the island is dominated by an active 7,000 foot volcano that last erupted in 1977. George says the land is so porous that runoff is slight despite high rainfall and that a 3-day rainfall of nearly 55 inches was recorded there in June 1972. *** Bob Vorhis, visiting the National Center on August 1, joined the retirees processing the August Newsletter for mailing. Bob spent about 6 weeks as a consultant in Oman last spring and joined Monique for a 2 1/2 month stay in Paris and in southeastern France. **** Dick and Drucile Young write from Avila Beach, California, that they have made what they hope to be their last move! "We have bought a mobile home in a pretty nice park here just out of sight of the ocean. We swore that we would never live on the coast nor in California, but, with good luck, we'll stick it out here for the rest of our lives."

CLARENCE E. McCASHIN--MEMORIES OF HIS PROFESSIONAL ENGINEERING ASSIGNMENTS
Primarily In Texas - by Trigg Twichell

Reviewing the personal and professional experiences of my old friend "Mac" is not only an interesting study of the man and his accomplishments, but also provides recollections of engineering developments with which he has been associated. It is a pleasure, therefore, for me to present this memoir of Clarence Eugene McCashin. He was my USGS supervisor from 1920 to 1928.

Mac was born October 22, 1887, in Austin, Texas. His father, Neill McCashin, was an Irish immigrant who had settled in Austin and became a railway postal employee. Neill's wife was Ione Raven. Mac was awarded the degree of Civil Engineer from the University of Texas in 1911 and married Dorothy Rose Hall of San Antonio, Texas, in 1912. From 1912 to 1918, he practiced engineering in the design, planning, and construction of major water-supply projects, such as the Medina Valley Irrigation Co's reinforced-concrete and earth-lined canal to irrigate about 50,000 acres of land northwest of San Antonio; a hydroelectric plant at Gonzales, Texas; the City of Austin's major reinforced-concrete tank as a part of the water distribution; and other smaller projects.

Mac joined the Survey's Surface Water District in Austin as a hydrologic engineer early in 1918. During the next ten years his responsibilities, in addition to those of assistant district engineer, included special studies in river hydraulics; supervision of the streamflow records section; research in "duty of water studies" for rice irrigation; preparation of a special report of flood runoff from an unusual tropical storm; training and supervising personnel; and developing public relations concerning the Survey's objectives, standards and service to the public.

Mac became involved with district administration early in his Survey career. Glenn Gray, who became the Survey's first district engineer for Texas in 1916, died late in 1918, and C. E. Ellsworth succeeded him. Although the cooperative program with the Texas Board of Water Engineers began in 1915, it was on a relatively small scale until 1923. In that year the Legislature, and also several cities and water districts, concerned about the loss of life and property from the 1921 and earlier floods, and about damage from droughts, appropriated considerably larger sums of money. The district's professional staff grew from eight engineers in 1918 to twenty-one in 1924. Of the latter, thirteen were newly graduated from college. In his role of Assistant District Engineer, McCashin recognized the need for an instructional manual and developed one that became known as "the Texas Bible," and that it was! It described in detail not only procedures and standards on stream gaging techniques but also instructions as to travel, expense accounts, and relations with the public. It was utilized by district personnel for many years thereafter. WSP 488, which documented the record-breaking floods in Central Texas in September 1921, included special field investigations and office computations by McCashin.

Both Ellsworth and McCashin were devoted to their professional field and enjoyed their association with conscientious members of their staff. Their social life frequently included their associates. McCashin was a forceful supervisor, and he did not hesitate to question his peers when he felt their policies or methods were in error. He was also a naturalist and one who enjoyed studying factors of a river reach that would affect the stage-discharge relationship at a gaging station. He stressed the value of a well-defined rating curve. In 1923 he concluded that a channel dam which formed the control at the station West Fork Trinity River at Fort Worth, Texas, would submerge under flood conditions and cause a reversal in the rating curve. This created considerable discussion among the hydraulic engineers. The question was solved by obtaining a series of rising and falling flood-discharge measurements, which supported McCashin's theory. The rating curve did reveal a well-defined reverse section.

In 1928, Mac was made chief of the newly-established Alabama District (SW) with headquarters at Tuscaloosa. The District function was primarily to operate a network of 46 stations in the States of Alabama, Florida, Georgia, Louisiana, and Mississippi with funds provided by the Corps of Engineers. Despite uncertain financing of the depression years, the program grew and in 1933, at Mac's urging, the District Office was moved to the State Capital at Montgomery where opportunities for service and cooperation with State agencies were greater.

In 1934, McCashin was transferred to Chattanooga, Tennessee, to replace District Engineer (SW) W. R. King who had recently died. At that time the newly-created Tennessee Valley Authority was growing very rapidly and their needs for our data were almost insatiable. In 1938, McCashin reported to the Chief Hydraulic Engineer that his health was not good--that the doctor recommended a rest. Mr. Grover arranged for Don Corbett, then in Boston and McCashin's first choice, to transfer to Chattanooga to relieve Mac of some of his work load. Don recalls Mac's strong technical abilities and that he was "the first, to my knowledge, to recognize the severe effect return overflow had on the stage-discharge relationship of a stream." Mac retired at the end of 1953 and he and Mrs. McCashin returned to Austin, Texas, in 1955. They celebrated their 50th wedding anniversary there in 1962. He died in Austin in 1968 at the age of 80 and Mrs. McCashin returned to Chattanooga to be near her architect son, Clarence E. McCashin, Jr. Mrs. McCashin died there at the age of 86. Their daughter, Dorothy Rose, now resides in Frankfort, Kentucky.

Helpful information from the following WRD retirees, also associated with Mac during his Survey career, is gratefully acknowledged: I.E. "Andy" Anderson, Frank Bell, Don Corbett, Miss Annie Hardin, and John Saunders. Clarence E. McCashin, Jr., kindly furnished or verified certain family statistics used.

A MESSAGE FROM THE PRESIDENT

It is refreshing to note the large number of WRD retirees who are spending a few to many hours weekly in some type of voluntary service. This activity takes many forms and variations because so many opportunities are available through institutional sponsorship--hospitals, local chapters of the National Red Cross, retirement groups, Veterans organizations, "Meals on Wheels," as well as community, church, and youth groups.

Many of you have written or said that some of the most rewarding experiences are visits with the elderly, infirm or indigent, particularly in nursing homes where the need for cheerful outside visitation is large. And, it is being done without fanfare because you sense a need and responsibility to provide some word of cheer, a small bouquet of cut flowers from the yard, or a bit of fresh-baked dessert. The recipient is usually so grateful as to return your effort several-fold in good will. The need is large, and WRD retirees have an exceptional experience and travel base for a special kind of dialogue in volunteer work, particularly in visits with the elderly. Walt Durum.

AN INVITATION TO THE ANNUAL DINNER DANCE

WHEN: November 22, 1980
FOR: All Personnel and retirees of WRD and their guests.
WHERE: Country Club of Fairfax, 5110 Ox Road (Route 123), Fairfax, Virginia.
Club is located about 4 miles south of center of Fairfax City and one half mile south of intersection of Route 123 with Braddock Road.
TIME: 7 p.m. Cocktails (cash bar); 8 p.m. Sit-down dinner; 9 p.m. to midnight, dancing.
COST: \$19.50 per person - includes dinner, wine, gratuity, live music, and parking.

Please send reservations and checks (payable to: "WRD Survey Wives") to Jane Carrigan, 6038 River Drive, Lorton, VA 22079 by Thursday, November 20. Jane's phone number is 703-339-5685

IN MEMORIAM

Robert B. Anders, a WRD geologist for 30 years prior to his transfer to Interior's new Office of Surface Mining in 1979, died of cancer on July 12. A graduate of the Missouri School of Mines in 1949, Bob began his Survey career in the Florida District (GW) in 1950 and transferred to the Austin headquarters of the Texas District (GW) in 1954. He was in charge of the Houston Subdistrict from 1958 until 1966 when he joined the staff of the Caribbean District at San Juan, Puerto Rico. Transferring to the WRD Planning Section at National Headquarters in 1972, Bob was engaged in developing material for Survey budgets at the National Center prior to his transfer and departure for Kansas City, Missouri, to serve as field investigator for OSM. He retired in May 1980 because of failing health. Bob is survived by his wife Catherine, son Bruce, and father. Catherine may be reached at 1155 E. Westchester, Springfield, Missouri 65807.

Holbert W. Fear, Assistant District Engineer (SW) for New York at the time of his retirement in 1960, died on August 20 in Gloversville, New York. Born in Gloversville in 1891, Bert graduated from Cornell in Civil Engineering in 1913 and worked for a while on the New York Barge Canal. He joined the New York District (SW) at Albany in 1914 and after assignments in Washington, D.C., Boston and Denver, he resigned in 1919 to enter his family's leather and glove business in Gloversville. Bert returned to the Albany District in 1938 and remained there for the balance of his career. He worked as a professional water consultant in the 1960's but continued locally active in water resources planning. At the time of his death at age 89, Bert was a member of the Gloversville Planning Board and a consultant for the local Fulton County Board. In March of this year, he prepared and presented a paper at a joint meeting of the Hudson River and Black River regulating boards. Bert's loyalty to the USGS and his support of the stream gaging program knew no bounds. Seeing to it that the Survey's recent Centennial was recognized in the Gloversville paper, Bert was also featured as "a local man celebrating his 64-year love affair with the agency." The Leader-Herald, the local paper for Gloversville-Johnstown, New York, in its editorial of August 25 covering Bert's public service to the community stated that: "The sciences of hydrology and geology sound boring to most persons, but when Holbert W. Fear talked about them they sounded exciting and meaningful." The Gloversville Transportation Commission, in its recent resolution of appreciation for Bert's services, noted that he was the first to have submitted a plan for local mass transportation. As a tribute to him, the city of Gloversville is placing Bert's official records in its archives. Mrs. Fear died in May 1979 (N.L. 24; p. 9).

John T. Limerinos, Assistant Chief of the Hydrologic Data Section of the California District, died on August 18 from head injuries suffered from a fall at his home in Atherton two days earlier. Born in Colorado in 1920, John served in the U.S. Army in North Africa and Italy during World War II. He graduated from the University of Utah (C.E.) in 1950, joined the Salt Lake City District staff later in the same year and transferred to the Menlo Park office in 1960. Author of special reports on a wide range of hydrologic studies, John received two USGS awards for his outstanding work and also an Award of Merit from the American Institute of Planners for an urban flood report. He is survived by his wife Rose, two sons and a daughter. Mrs. Limerinos resides at the family home, 70 Sutherland Drive, Atherton, California 94025

Helen Louise McGuinness, widow of Ground Water Branch Chief (1966-71) Charles Lee McGuinness, died on August 17 at home in Washington, D.C. Born in 1915 in Fort Scott, Kansas, Helen Louise moved with her family to Albuquerque, New Mexico, when about 6 years of age. She and Lee likely became acquainted during junior high school, and some years later, at the University of New Mexico, Helen Louise took a geology course taught by Lee, who held a fellowship there. They were married in 1936 and in August 1938 they moved to Washington, D.C. where Lee began his career with the Ground Water Branch.

Except for a short period (1942-43) with the Indiana District, they were stationed at the National Headquarters. Helen Louise was also a member of the GW Branch staff on a part-time basis during 1946-47. In the years following Lee's death in 1971, her health gradually declined to the point that, while she still maintained the family residence, she spent considerable periods in a nursing home. Fortunately, Helen Louise has a sister, Mrs. Kathryn F. Trainer, living nearby in Virginia. Burial was in Fort Scott, a location that Lee had chosen for them among earlier generations of her family.

Lewis C. McWilliams, who at the time of his retirement in 1973 was in charge of field personnel for the Knoxville, Tennessee subdistrict, died of lung cancer on June 30. Born in Lauderdale, Mississippi, in 1911, Mac joined the staff of the Knoxville Subdistrict (SW) in 1950 and remained there during his entire Survey career. Following retirement, he continued to work part-time for the subdistrict until early in 1975. He and wife, Clarice, later moved to New Braunfels, Texas, where one of their two sons and his family reside. In retirement, Mac's interests included gardening and travel. In 1977 he and Clarice enjoyed a fly-drive tour of Portugal. They last visited friends in Knoxville in October 1979. Clarice may be reached at the family residence, 1765 Gardenia Drive, New Braunfels, Texas 78130.

Estela (Mrs. Jack) Reed died on August 11 of a blood clot that stopped her heart. Since 1972, when Jack retired from the Puerto Rico District where he headed laboratory activities, the Reeds have been living in Fayetteville, Arkansas, their home also during 1953-62 when Jack was with the Arkansas District (QW). Estela was a native of Mexico City where she and Jack were married when he was working there as a journalist. Her artistic talents had recently become well-known in Fayetteville where her oil paintings were on exhibit at a local bank.

David R. Scully, a hydrologist with the Alaska District, died at home in Anchorage of a heart attack on September 10. Dave was born in Lewiston, Idaho, in 1941 and was a civil engineer graduate of Washington State University (BS in 1964; MS in 1965). He joined the Sacramento, California, subdistrict in 1965 and transferred to Alaska in 1970. Dave developed low-flow analysis techniques for Alaskan streams and more recently was engaged in securing environmental data needed in the mining of Alaskan coal. He was an author of a Hydrologic Atlas describing the water resources of the Cook Inlet Basin. Some of his current studies were of such hydrologic hazards as release of lake waters impounded by glaciers. An ardent marathon runner, Dave was one of those completing a 26-mile race last May. He participated in a 10-mile contest two days prior to his death. Mrs. Scully (Geraldine M.) may be reached at 7725 Hennings Way, Anchorage, Alaska 99504.

Many of our retired stream gagers may well have noted the increasing use of the term "instream flow" in articles on water problems and wondered if it might be bordering on redundancy. (Are not all flows "instream"?) Assistant WRD Chief Tom Buchanan, who was chairman of the interagency task force on instream flows, tells us that the term refers to the waters remaining in a reach of river after diversions and available to meet the inchannel water needs such as recreation and fish and wildlife habitat, and that diversions for irrigation and public water supply increasingly threaten instream water requirements. The President looks to the States for protection of instream flows but has ordered Federal agencies to establish and provide for the flow required to meet instream needs in planning new projects.

ACKNOWLEDGMENTS

We are indebted to the following persons who recently have sent in special contributions in amounts up to \$18.00: James Hungate, Trigg Twichell, Ed Hulme, June Jackson, Ben Lofgren, Horace Babcock, Robert L. Cushman, Wyatt Gambrell, Charles Keech, Richard Young, Edward Burke, Bill Forrest, and Walter Mourant.

The following met at the National Center on August 1 to process for mailing, and other distribution, the August newsletter: Joe Cragwall, Walt Durum, George Ferguson, Milt Hackett, Gladys Hearne, Sumner Heidel, Ruth Malone, Charlie Morgan, Ed Reed, Phil Somers, Herb Swenson, and Bob Vorhis.

SECOND SUPPLEMENT TO MEMBERSHIP DIRECTORY (7th EDITION)

NEW MEMBERS

Bain, George L. ('78) (Chris), Ebasco Services Inc., 2211 W. Meadowview, Greensboro, NC 27407
Barnes, Harry H., Jr. ('80) (Jean) (former Affiliate), 2135 Colts Neck Court, Reston, VA 22091
Brown, Richmond F. ('80) (Lee), R.D. 1, Box 304, Central Lake, MI 49622
Hedges, Richard E. ('80) (Sheila), 2204 N.E. 8th St., Ocala, FL 32670
Holt, C. L. R., Jr. "Lee" ('80) (Catherine), 5328 N. Peachtree Rd., NE, Dunwoody, GA 30338
Hulsing, Harry ('80) (Klava), 1684 Crescent Dr., Anchorage, AK 99504
Jones, James R. ('80) (Suzy) (former Affiliate), 2312 Rosedown Dr., Reston, VA 22091
Koester, Harry E. ('80) (Elaine), 21 Horizon Heights, Clarion, PA 16214
Lokke, Gordon E. ('80) (Gwen), 4430 Laurelwood Way, Sacramento, CA 95825
Messick, Mrs. Elizabeth E. ('80), 5325 Allandale Rd., Green Acres, Washington, DC 20016
Mourant, Walter A. ('80) (Ruth), 1716 Vassar N.E., Albuquerque, NM 87106
Rennick, Kenneth B. ('80) (Doris), 1315 S. Dover Way, Lakewood, CO 80226
Roy, Norman J. ('80) (Sylvia), 791 Valentine St., Fall River, MA 02720
Schiavo, Salvatore D. ('80) (Annette), 18 Kenaware Ave., Delmar, NY 12054
Smith, Robert E. ('80) (Eleanor) (former Affiliate), 5511 Birdwood Rd., Houston, TX 77096
Underwood, Mary M. ('80), 699 Chelsea Ave., Columbus, OH 43209
Visher, Frank N. ('79) (Dorothy), 3351 Vivian Court, Wheat Ridge, CO 80033
Westphal, Rudy ('80), Box 4255, Yuma, AZ 85364
Wyrick, G. G. "Glenn" ('80) (Joanne), 216 Florence St., Greensboro, NC 27401

REVISIONS TO DIRECTORY OF MEMBERS

Brookhart, Mrs. Joseph W. (Laura) (W), 819 W. Panhellenic Drive, Gainesville, FL 32601
Cleaver, Mrs. J. Francis (Beth) (W), 853 Tamalpais Ave., #109B, Novato, CA 94047
Cushman, Robert L. ('73) (Joyce), 210 Cascade Ave., Cheyenne, WY 82001
Folsom, Mrs. Orrin J. (Jeanette) (W), 1204 Hauser Blvd., Helena, MT 59601
Mathews, Elmer P. ('75) (Joy), RFD 3, Box 375, 29 Mize Circle, Seymour, TN 37865
Nace, Raymond L. ('77) (Helen), 1030 Utah St., Gooding, ID 83330
Trotter, Israel L., Jr. ('72) (Hazel), Rt. 2, Box 485-C, Purvis, MS 39375
Young, Richard A. ('73) (Drucile), 164 River View Rd., Avila Beach, CA 93424

REVISION TO DIRECTORY OF AFFILIATES

Langford, R. H. "Hal" (Jean), 4906 N. 34th Road, Arlington, VA 22207

ADDITIONAL NEWS ITEMS

Richard T. Sniegocki, long-time District Chief for Arkansas, retired on October 3.

New members Bob and Elaine Brennan plan to remain in Lakewood, Colorado, enjoying the beautiful area and their nearby grandchildren. Bob, who retired in September, will continue to fill, part-time, the position of water quality specialist, Colorado District, until a replacement arrives. Elaine, in real estate, will likely continue in that field for a few more years.

Rupert B. Southard has been named Chief of the National Mapping Division, a new segment of the USGS that combined its former Topographic Division (of which Southard was Chief), the Geography Program, and most of the Publication Division (N.L. 27, p. 2).

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