

### EMPLOYEE AWARDS

CHAUNCEY N. ALDRICH, programing and planning engineer for the Philippine Division, was granted a cash award of \$250 under the provisions of the new Government Employees Incentive Awards Act passed by Congress in September 1954. He is the first Public Roads employee to receive a cash award for superior performance.



Chauncey N. Aldrich

During his 4 years in that Division Mr. Aldrich has demonstrated outstanding ability, devotion to duty, leadership, and courage in welding together diverse parts of our foreign operation. Acting for the Division Engineer he has briefed Congressmen, foreign visitors, and investigation boards of both the Philippine and U. S. Governments in the complex operations of the Philippine road program. He has undertaken independent assignments on highway matters in neighboring Asian countries, and has worked with numerous branches of the Philippine Government and the Foreign Operations Mission on public health and other matters not directly related to the highway program.

HURNIE H. WHITEHEAD, operating engineer and supervisor of the heating plant at the Langley Research Station in Virginia, was presented with an award of \$175 for his suggestion leading to a saving of close to \$5,000 annually in supplying hot water for the laboratory. Designers had provided hot water from large boilers



Hurnie H. Whitehead

used in heating the two buildings. This made it necessary to keep an engineer and fireman on duty day and night throughout the summer, and coal consumption was greatly out of proportion to the amount of hot water needed. Mr. Whitehead proposed installation of a small hot water heater that brought large savings in operating costs and in wear of equipment feeding coal to main heating units.

Mr. Aldrich's handling of the Davao-Agusan development road project demonstrated his courage, resourcefulness, and planning ability. On this project it was necessary to con-

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### TRAINING OF FEDERAL EXECUTIVES

The Department of Commerce recently cooperated in a survey conducted by the U. S. Civil Service Commission in which all career executives at grades GS-15 and above were requested to submit certain data regarding their work experiences, past education and training, and their own personal evaluation of what should be added to make them more effective executives. The information was obtained to assist the Commission in making plans for the recruitment, development, and utilization of Federal career executives.

Seven "prototype" agencies were included in the survey. Following is a summary of the general findings. Responses to the questionnaire were submitted by 803 career executives. The group was truly a career group. Members had an average age of 52 and had been in the Federal service an average of 18 years. One in four had served for more than 25 years.

Half of the executives entered the service in grades at or below GS-7. The typical man has a bachelor's degree and some additional graduate work. Forty percent took some college work after entering the service. Just before entering the public service, one-third of them were employed in private industry. Around 10 percent came from private, professional practice, another 10 percent from local government, and another 10 percent from university instruction or administration. Only one in five entered the service directly after attending school.

Movement across agency and Bureau lines has been rather restricted. Half of the executives have spent their Federal careers in one agency and most of them in one bureau. Twenty percent have served in only two agencies.

Forty percent of the group have never had a course in economics; 60 percent have never had a course in political science or government; and





67 percent have had no courses in public or business administration.

#### TRAINING DESIRED

In apparent recognition of these facts, the respondents voted heavily for formal training in public administration, business administration, and personnel management. This was true regardless of the fields in which they were employed. Sixteen percent of those working in general administration wanted courses in public administration. So, however, did 16 percent of those working in biological or physical sciences.

Categorically, the group rejected the idea of weekend and evening training in the event a staff college were established. Sixty-four percent said they could leave their work full time, and 47 percent said they would prefer five weeks of training off the job.

#### District Engineer Positions

By action of the Department of Commerce, 29 additional district engineer positions have been allocated to grade GS-14, thus making a total of 40 in that grade. This welcome action came recently after many months of study and conferences.

Districts recently approved for grade GS-14 district engineers are: Alabama, Arizona, Arkansas, Idaho, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Mississippi, Montana, Nebraska, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Virginia,

#### ALDRICH (Con.)

struct 176 kilometers of road through virgin jungle and swamps, accessible by normal means only at each end. It would have been necessary to proceed from each end toward the center by small contracts consistent with the available financial means and organization of inexperienced and, for the most part, under-equipped Filipino contractors. Mr. Aldrich made many aeroplane flights and landings in search of areas where equipment could be brought ashore on the Pacific Ocean side of Mindanao. He found a beach suitable for LCT landings at Lianga where two partially completed jungle roads led inland toward the Davao-Agusan location. He then persuaded the Philippine Bureau of Public Highways to complete these access roads and also succeeded in getting the Philippine Navy to furnish the necessary LCT. He personally organized the loading of the equipment, the landing at Lianga, and the access road construction. Subsequently he

Washington, Wisconsin, Wyoming, Hawaii, and Puerto Rico.

The following districts were previously approved for grade GS-14 district engineers: California, Colorado, Florida, Georgia, Illinois, Indiana, Minnesota, Missouri, North Carolina, Ohio, and Pennsylvania.

#### Division Engineer Honored

ALONZO C. TAYLOR was awarded the Philippine Legion of Honor for exceptionally meritorious service to the Republic of the Philippines for his help in formulating a highway improvement program. Mr. Taylor served as programing and planning engineer in the Philippine Division from 1946 to 1949, and returned in 1951 to assume the position of Division Engineer. He is now assigned to the Washington office.

#### A Good Catch

WALTER D. SQUIRES, equipment specialist assigned to Liberia since 1952, finally hit the jackpot with a 192-pound tarpon. Mr. Squires has hunted and fished on three continents during his 10 plus years with Public Roads, and is something of an authority on these two sports. Shortly after landing this fine specimen, he bagged a bush cow in the Liberian jungles which is a dry land feat comparable to the oceangoing one pictured here. The African bush cow is one of the few animals that will go out of its way to attack humans.

According to Field and Stream Magazine, the record tarpon landed with rod and reel was caught at the mouth

developed a plan for a third access road from the Agusan River to the project. As a result, five additional contracts were under construction before access could have been attained from either end. The Davao-Agusan project was completed at least 5 years ahead of schedule and brought a large monetary benefit to the Philippine economy by expediting their land settlement program.

Mr. Aldrich's outstanding courage was further demonstrated when an American contractor was overcome by heat prostration while walking the survey line in the Agusan Valley. In response to radio reports of the incident and forecasts of floods which would make ground evacuation impossible, efforts were made by commercial helicopter from Manila to locate the contractor. When these efforts failed, Mr. Aldrich and a pilot made a search in a single-engine plane before dawn, found the contractor, and guided the helicopter to the area within an hour.

of the Panuo River, Mexico, in 1938. It weighed 247 pounds and was 7 feet, 5 1/2 inches long. The largest tarpon caught by any means (unnamed) weighed 350 pounds, and was taken from the Hillsboro River in Florida.



Walter D. Squires

#### New Assignments

RAYMOND W. BERGERON, former junior highway engineer, transferred during June to the Main District Office from the Urban Highway Branch of the Washington office. He will take over the duties of Francis H. Horton, design engineer.

JAMES J. CROWLEY transferred from the Division 1 Office to the Rhode Island District Office in July.

THEODORE DEC, formerly employed on the WASHO Road Test project, recently assumed the duties of programing and planning engineer in the Oregon District Office.

HALLAS H. RIDGEWAY was assigned to the Gatlinburg District Office of Division 15. He recently graduated from the University of Connecticut.

ARNOLD W. EILERS was assigned as engineering aid in the Division 5 Office at Kansas City, Mo.

ROBERT C. GIBSON, bridge engineer in the Missouri District Office, transferred to the Division 5 Office to fill the vacancy created by the retirement of R. R. Tipton.

OMAR L. HOMME, bridge engineer, transferred to the Division 9 Office from Division 7.

OSCAR LASK transferred from Division 1 to the Division 4 Office in July. His new assignment is administrative officer for the Division.

DOLORES M. KRAL, clerk-stenographer, recently joined the Adminis-

trative Section of the Division 4 Office.

ROY S. MARCEY, administrative assistant in the Illinois District Office, transferred to Division 1 at Albany during July.

JUNE MILLER, clerk-typist, joined the staff of Highway Transport Research Branch in June.

EDWIN O. MONTGOMERY transferred from the New Mexico District Office to the Illinois District Office in May. He is assigned to the position formerly held by Roy S. Marcey.

MRS. NADINE M. MOORE of the Florence, Ala., District Office of Division 15 was reinstated in May after a 13-month separation.

WILLIAM D. POTTER, having completed his graduate studies in statistics at Cornell University, has resumed his work as hydrologic research engineer for the Hydraulic Research Branch.

Mrs. MILDRED SISK transferred recently from the Washington office to the Georgia District Office. (It was erroneously reported in the June issue of "The News" that she had resigned.)

WILLIAM A. STACEY III, bridge engineer in the Iowa District Office since 1949, recently transferred to the Missouri District Office. V. E. HARVEY, Iowa District, has assumed the duties of bridge engineer as well as retaining responsibility for planning activities.

GEORGE W. STENSON, formerly with the Bureau in Costa Rica, recently reported for duty in the Washington District Office of Division 8.

Mrs. MARGARET G. TOTH joined the clerical staff of the Arizona District Office in June.

Mrs. E. A. TREACY transferred from the Arizona District Office to the Washington office, Highway Transport Research Branch, in June to become secretary to Mr. Hitchcock, Acting Branch Chief.

ROGER C. WOODY transferred from the Department of the Army, Phalsbourg, France, to the Construction and Maintenance Section of the Division 5 Office. In his overseas assignment, he was engineer in charge of airport construction.

LAWRENCE W. YEARKE, engineer in the New York District Office, transferred to the Division 1 Office in July.

The following men, employed for the summer by the Arlington, Va., District of Division 15, were assigned to field location and construction parties: JOHN R. BURNETT, SAMUEL E. DICKSON, PAUL L. HOFFMAN, ROBERT M. ISAACSON, ROBERT F. TURNURE, JR.,

DAVID R. CHRISTENSEN, THOMAS L. BRANSFORD, WESLEY K. HARRIS, JR., and ALLEN J. WEINSTEIN.

GRADY D. BURKS, JOHN D. CARMACK, BILLY STRICKLAND, and WILBUR C. WILLIAMS were also employed for the summer by Division 15. Mr. Williams is working with engineering personnel in the Florence, Ala., office and the others are on construction work at Eupora, Miss.

MARVIN E. MARTIN, engineer in the Montana District Office for the past 9 years, transferred recently to the Division 8 Office.

CHARLES E. GOODWIN, JOHN C. MOREHEAD, CLYDE W. SCHAFER, engineering aids, and LINCOLN C. BLAKE, ROBERT B. McEWEN, JOHN J. MULLINS, JR., engineering-aid trainees, were assigned recently to the Bar Harbor District of Division 15.

#### Resignations and Transfers

Mrs. EVELYN M. BROWN, clerk-typist in the Indiana District Office, resigned in July to assume the duties of housewife. Miss SHIRLEY PETERSON, her replacement, attended Denison University in Ohio for 3 years prior to joining Public Roads.

LEMUEL M. BURKHART, JR., engineer for the New York District Office, resigned in June to accept a position with the Foreign Operations Administration in Asuncion, Paraguay. He will serve as adviser on highway matters to the chief of the mission.

PAUL E. CONRAD, engineer for the New York District Office, resigned in June to accept a position with a private concern in Connecticut. Mr. Conrad completed the Bureau's junior engineer training program in 1952 and was assigned to Division 1 at that time.

ANNE CUNNINGHAM, Financial and Administrative Research Branch, resigned to enter the Ballet Theatre School in New York City. She appeared recently as soloist in the Festival of Dances and Songs of the Americas in the Beautiful Aztec Gardens of the Pan American Union.

Mrs. MARGARET DIROLF, clerk typist for the New York District Office, resigned in June to assume the duties of housewife. She had been with the District Office since 1951.

RITA A. DUIGNAN, Primary Highway Branch, transferred to the Department of Defense.

WILLIAM B. DYER of the Gatlinburg District of Division 15 resigned in July to accept a position in private industry in his home State of Florida.

FRANCES EDWARDS, clerk-stenographer in the Maine District Office,

accepted a position with the Federal Housing Administration in San Diego, Calif.

DON W. FERGUSON of the Division 7 Office resigned in July after 20 years of service. Mr. Ferguson has no plans for further employment in the immediate future.

JACK STILES, Division 7 Office, resigned in June to accept a position with the California Division of Highways.

WARREN A. FRICK, engineer in the Illinois District Office, resigned in June. He has accepted a position with the Illinois Division of Highways, Bureau of Design, and will continue to reside in Springfield.

CHARLES N. GRAHAM, transportation economist for the Financial and Administrative Research Branch, transferred to the Interstate Commerce Commission in July. His work there will be under the Director of the Bureau of Transport Economics and Statistics.

G. W. GRAY, Financial and Administrative Research Branch, resigned in July to accept an engineering position with Murphy Bros., Inc., Spokane, Wash.

WILLIAM L. HALL, transportation economist in the Division 8 Office, resigned in July to accept the position of executive director for the Montana Legislative Interim Committee Highway Needs Study.

Mrs. AGNES McBRIDE, clerk-stenographer in the New Mexico District Office for the past 7 years, transferred to the National Park Service Regional Office in Santa Fe.

HANS A. MIDSTOKKE, engineer in the Michigan District Office, resigned in June to accept the position of safety engineer for the Micro Switch Company in Freeport, Ill.

THOMAS H. TAYLOR, employed at Europa, Miss., resigned in July to enter the Baptist Theological Seminary.

PHILLIP A. UPP, bridge engineer for Division 9, resigned in July to join an engineering firm in Denver.

Mrs. HENRIETTA J. WILDS, clerk-typist in the Michigan District Office, resigned in order to join her husband, a member of the armed forces stationed in Germany.

#### Former Employee

C. C. MORRIS, retired Division Engineer of Division 7, recently visited the Iowa District Office. Mr. Morris, a resident of San Francisco, attended the 50th anniversary reunion of graduates from Iowa State College. Mrs. Morris accompanied her husband on the trip.



## Personals

HARRY J. PETERS of the Division 7 Office, and Catherine Malley were married in June.

BARBARA ANN WILKINS, Federal Projects Branch, and William E. Smith were married on June 18. Mr. and Mrs. Smith are residing in Enid, Okla.

JOSEPH H. POWERS, engineer for the Bridge Branch, and Sally Parlett of Washington, D. C., were married on July 2.

Public Roads employees completing short tours of active duty with the armed forces were as follows:

Lt. Col. H. M. BREMER, North Carolina District Office, USAR Engineer School, Fort Benning, Ga.; Lt. Col. GLENN CASSIDY, Division 6 Office, U.S. Army Signal Corps School, Fort Ord, Calif.; Lt. C. R. GREEN, North Carolina District Office, Pope Air Force Base, Fort Bragg, N. C.; Maj. F. W. KRON, New Jersey District Office, Fort Dix, N. J.; Lt. Col. L. M. MARKS, Pennsylvania District Office, Ft. George G. Meade, Md.; Capt. M. A. PIETRANTONI, Puerto Rico District Office, National Guard training at Salinas, P. R.; Lt. Col. O. D. PRICE and Maj. C. W. RUCKMAN, Texas District Office, National Resources Conference at University of Texas; Col. R. C. GLOVER, Oklahoma District Office, Engineer Depot at Granite City, Ill.; Col. W. P. PRIVETTE, Oklahoma District Office, Command and General Staff school at Fort Sill, Okla.; Capt. P. E. WARREN, Colorado District Office, Fort Carson, Colo.; Lt. Comdr. T. J. WEISHAUP, Louisiana District Office, New Orleans Naval station; Maj. E. C. MUSE, Jr., Louisiana District Office, Fourth Army Headquarters, Fort Sam Houston; and Capt. ROY SHIMER, North Dakota District Office, U.S. Army Reserve Engineer School, Camp McCoy, Wis. Minnesota District Office employees completing tours were as follows: Lt. R. I. KELLUM, Port Huene, Calif.; Lt. J. H. MOHR, Coronado, Calif.; Capt. W. N. DULIN and Maj. L. M. HALL, Camp McCoy, Wis.; and Capt. I. J. HARVES, Minneapolis, Minn.

Proud parents of new offspring are the following:

Mrs. CATHERINE O. ALLEN, Physical Research Branch, twin girls, Vickie and Julie, born in June.

EMMETT L. BARTON, Utah District Office, a son, Robert Emmett, born in May.

ROBERT W. DUIS, formerly of the Ohio District Office, a son, James, born in June.

MELVIN E. FENDELL, Maryland District Office, a son, born in April.

Mrs. B. E. GREAVES, Highway Transport Research Branch, a son, Phillip, born in June.

ARTHUR LAPPINEN, Division 7 Office, a daughter, Pamela Jean, born in May.

CHARLES MOFFAT, Bridge Branch of Division 15, a daughter, Kris Tina, born in June.

LEROY REIN, Division 7 Office, a son, Roy, born in June.

JAMES M. TRACY, Division 9 Office, a son, David Alan, born in June.

WILLIAM A. BLANCHETTE, Division 15, was admitted to the Bar of New Hampshire. Mr. Blanchette has been with Public Roads for the past 33 years and is a member of the Bar in the District of Columbia.

J. M. (Mike) De BARDELEBEN, engineer for Division 1, recently spent part of his vacation visiting Division 6 headquarters at Fort Worth, Tex. Mike formerly worked in Division 6 and has many friends in the Bureau and State offices in that area. As he readily admits, it is hard to take the Texas out of a Texan, and it is "old home week" when he returns.

EMIL C. HEINRICH, Pennsylvania District Office, accompanied by Mrs. Heinrich, returned to West Germany, his place of birth, after an interval of 18 years. The Heinrichs' intend to visit relatives and friends in Stuttgart and vicinity. Mr. Heinrich also expects to take this opportunity to study the autobahnen, the newest prestressed concrete methods, the restoration of blasted bridges, new traffic routing plans through the devastated downtown areas of old cities, and new city routing plans.

H. O. THOMPSON, engineer in the Arkansas District Office, had a full-page article on "Lake Fishing" in the Arkansas Gazette. Unfortunately, after reading the article over weekend fishermen have been overrunning his favorite "holes." Mr. Thompson has long been an ardent disciple of Isaac Walton and has recently published a series of short articles.

Mrs. HELEN J. TOOTHMAN, Secondary Roads Branch, attended the 38th National Convention of the Welsh Women's Club held in Detroit. She is president of the local chapter of the organization.

JOSEPH N. BRADLEY, Hydraulic Research Branch, was awarded the James Laurie Prize of the American Society of Civil Engineers for 1955 for his paper "Rating Curves for Flow over Drum Gates." This paper, published in the 1954 Transactions of the Society,

was prepared while Mr. Bradley was with the Bureau of Reclamation.

CLEM J. O'CONNOR, administrative assistant in the Kentucky District Office, attended a 1-week writers' conference at the University of Indiana.

## Retirements

GEORGE H. BUSH retired from the Bureau in May after 37 years of employment in Government. Mr. Bush was first employed by the National Bureau of Standards and in 1920 transferred to the Bureau of Public Roads, Physical Research Branch. He became associated with the cement and aggregates laboratory and assisted in the development and standardization of methods of testing concrete aggregates. For the immediate future, he expects to maintain his residence in Fairmount Heights, Md.

CHARLES C. EDWARDS retired in June due to illness. Mr. Edwards, an employee of the Government for 17 years, came to Public Roads from the Department of the Navy.

NORMAN E. LANT, a former employee of Public Roads, retired from the Louisiana Department of Highways in July. Mr. Lant was an engineer with the Bureau at Little Rock, Ark., and Fort Worth, Tex., in 1921 and 1922, and since then has been with the Louisiana Department of Highways as bridge engineer, chief engineer, and recently urban engineer.

EDGAR B. JOHNSTON, maintenance engineer for the Virginia District of Division 15, retired in June after more than 27 years of Government service. Mr. Johnston joined Public Roads in 1933, and was assigned to construction of roads and trails in the Morristown National Historical Park, Morristown, N. J. Early in 1936, he transferred to the Virginia District where he assisted in construction of the George Washington Memorial Parkway, the Pentagon Network, the Suitland Parkway, the Indian Head highway, and other projects in the Washington area. Since 1945 he had been in charge of maintenance on the Suitland Parkway and the Indian Head Highway.

Mr. Johnston first entered Government employment in 1908 with the Forest Service, and later served with the U. S. Army Engineers. Between breaks in service with the Federal Government, his experience included 7 years with the New Jersey State Highway Department and several years with the Missouri State Highway Department.

LAURENCE A. LAWRENCE, administrative officer in Division 4, retired

from Public Roads in June after completing 31 years of employment with the Federal Government.

Mr. Lawrence received his formal education at Syracuse University and at Kansas State Normal at Emporia. He began his Government service in 1920 as a field examiner of accounts with the Interstate Commerce Commission. Before coming to Public Roads in 1933, he also served with the U. S. Railway Administration and spent several years in private employment. His assignments in the Bureau were in the Washington office and in Divisions 4 and 7.

FRED A. DAVIS, District Engineer for Mississippi, retired in August. After graduation from Purdue University in 1912 with a degree in civil engineering, Mr. Davis spent 1 year in engineering work in Ohio and Indiana before joining the Bureau as a junior highway engineer. For the following 10 years his assignments were in Virginia, Florida, and Alabama. In 1922 he was made senior highway engineer for Mississippi and held that position until 1945, when he was appointed District Engineer.

JOE LISSNER, an employee of the Federal-aid Branch of the Division 8 Office, retired in July after completing more than 36 years of Government service.

KENNETH MYRL MURRAY, superintendent of Utah District equipment depot, retired in July after 35 years of employment with Public Roads.

Mr. Murray, a native of Utah, served as equipment superintendent since the establishment of an equipment depot in what was formerly District 12. He was a specialist in the selection and maintenance of all types of equipment, and his work involved extensive traveling in the several Western States.

Mrs. DOREEN SHA, fiscal accounting clerk in the Washington office with nearly 25 years of service, retired in June for disability. Mrs. Sha plans an extended visit with her daughter in California, after which she expects to settle in Charlottesville, Va.

Mrs. MYRTLE SLATER, Audits Section of the Washington office, retired in July. Mrs. Slater had been with Public Roads for the past 20 years. She will continue to reside in Washington.

ROLAND E. NAIRN, fiscal accounting clerk for the Washington office, retired in July after 41 years of Government service. He began his career with the Department of Agriculture and transferred to Public Roads in 1923. Mr. Nairn, whose home is in Hyattsville, Md., intends to take part-time employment which will per-

mit him to devote more effort to community activities.

RICHARD R. TIPTON, bridge engineer for Division 5, retired in July after 30 years of Government service. Mr. Tipton had served with the Reclamation Service, U. S. Army, and National Park Service before coming to Division 5 in 1944. Before that he was assigned to the Ft. St. John Division of the Alaska Highway where he had charge of bridge work. Mr. Tipton plans to live in Berkeley, Calif.

## Vocations and Avocations

Vocational training has always been a prime interest to the Bureau and its employees. Now comes a reminder from the New Mexico District Office that those who are nearing retirement might do well to consider what avocation they will take up to replace their work with the Bureau.

Here are some interesting examples from the New Mexico District. One employee is an enthusiastic amateur archeologist and historian. Another is a radio "bug," and officer in Civil Air Patrol, and an active Civil Defense worker. One lady does beautiful needlepoint. An engineer is the envy of Santa Fe horticulturists for the regularity with which he collects blue ribbons at flower shows. This interest will not cease at 65 or 70 either. One man with much experience in steel work will design and make all sorts of iron, copper, and brass ornaments and useful articles for the home. An accomplished pianist and ardent philatelist, and a mighty hunter are also with us planning for the day their chosen avocations may become a full-time job.

## Obituaries

Mrs. MARIE ANDERSON, formerly employed in Division 7, passed away June 17. Mrs. Anderson retired from the Bureau in 1951 after many years of Government service.

Mrs. RUTH CLOUD DeRUITER passed away at Fort Worth, Tex., on July 10, after an illness of several weeks. She was chief clerk and stenographer for the programing and planning section and secretary to the programing and planning engineer in the Division 6 Office. Except for a brief period during World War II with the War Assets Administration, Mrs. DeRuitter had been employed by Public Roads since 1935.

Mrs. ALMA M. GOULDMAN of the Washington office died on June 19 after an extended illness. She was one of the supervisors of the mail, records and communications section for 26

years. Mrs. Gouldman retired from Public Roads in April on account of illness. She is survived by her husband, Hugh T. Gouldman, Sr., and one son, Hugh T. Gouldman, Jr.

GEORGE G. HOLLEY, landscape architect with Public Roads, died on June 29 at his residence in Washington as the result of a heart attack. He was stricken while at work during May, and was confined to his bed since that time where his condition had seemed to be improving.

Mr. Holley, age 57, was born in Fiskdale, Mass. He served in the armed forces during World War I, and was a 1923 graduate of the University of Massachusetts. Following graduation he worked with nurseries and landscape contractors. Mr. Holley joined the Bureau in 1930 as landscape architect on the Mt. Vernon Memorial Highway. Upon completion of this work in 1932 he transferred to the Office of Public Buildings and Public Parks, now National Capital Parks. Later he was employed by the Indiana State Highway Commission as landscape engineer in charge of roadside improvement. He returned to the Bureau in 1938, and since then was stationed in Roanoke and Arlington, Va., and the Washington office. His employment with the Bureau included work on major projects such as the Mt. Vernon Memorial Highway, Blue Ridge Parkway, Pentagon Network, Shirley Memorial Highway, Mississippi River Parkway Survey, and Federal-aid highways.

Mr. Holley is survived by his wife and two sisters. A military burial service was held in Arlington National Cemetery.

GERALD T. O'BRIEN, son of District Engineer S. W. O'BRIEN, Jefferson City, Mo., died June 15 after a long illness. Gerald O'Brien was employed as engineering aid at Ozark, Mo.

*The Bureau of Public Roads extends its sympathy to the bereaved families.*

W. M. DANIELSON, division planning engineer, Atlanta, Ga., lost his wife and daughter through suffocation when his home burned. Word of this tragedy reached the Washington office on July 19. The Bureau of Public Roads offers its deepest sympathy to Mr. Danielson.

## Illnesses

T. E. COULTRY, materials engineer for Division 1, has been seriously ill for the past several weeks. His condition is improving and it is hoped that he will be able to return to work in the fall.



OSCAR D. PRICE, engineer in the Texas District Office, has been absent from duty for 4 weeks because of illness. He is now improving and it is expected that he will return to work soon.

C.D. BOHANNAN, Head of the Transportation Unit (Collateral Studies Section) in the Highway Transport Research Branch, underwent surgery in May. He is now recuperating at his home.

HOY STEVENS, Head of the Transportation Economics Unit of the Highway Transport Research Branch, became ill while on a field trip in Atlanta, Ga. He underwent surgery late in June upon his return to Washington, and is now making good progress toward recovery.

JAMES A.J. ROBERTS, Primary Highway Branch, became seriously ill while at work on July 21.

## JUNIOR ENGINEER GRADUATES

The seventh class of 16 junior engineers were graduated on June 2 from the 3-year training program and assigned to regular positions. To date, 118 engineers have completed the training program. Of this number 107 are still employed by Public Roads, a remarkably high percentage when compared to employment experience of graduate engineers in other types of organizations.

Junior engineers completing the program, their college, and assignment are listed below. Those assigned to the Urban and Bridge Branches in the Washington office will be assigned to the field after a year or so of supplementary training.

Daniel H. Brown, Jr., University of Washington, bridge engineer, Bridge Branch, Wash. D. C.; Richard C. Cowdery, University of Colorado, highway engineer, Liberia; Jack R. Hutchins, Montana State College, highway engineer, Personnel and Training Office, Wash. D. C.; Michael Lash, Tufts College, highway engineer, Division 7 Office; Walter L. McCausland, Colorado A & M College, urban design engineer, Urban Highway Branch, Wash. D. C.; Charles M. Moffat, Rensselaer Polytechnic Institute, bridge engineer, Div. 15, Arlington, Va.; John E. Mors, Iowa State College, highway engineer, Div. 8 Office; William S. Peterson, Michigan College of Mining and Technology, highway engineer, Arizona District Office; Robert A. Quist, South Dakota School of Mines and Technology, highway construction engineer, Div. 15, St. Paul, Minn.; Glade W. Roberts, Utah State Agricultural College,

highway engineer, Utah District Office; Ralph T. Segawa, Case Institute of Technology, bridge engineer, Division 7 Office; Emery L. Shaw, University of Oklahoma, highway engineer, Texas District Office; Charles B. Totten, University of Southern California, highway engineer, Washington District Office; Sheldon C. Turnidge, Utah State Agricultural College, design engineer, Aerial Surveys Section, Wash. D. C.; William H. White, Michigan State College, urban design engineer, Urban Highway Branch, Wash. D. C.; and Robert G.S. Young, University of Michigan, urban design engineer, Urban Highway Branch, Wash. D. C.

Frank S. Allison, a member of the 1955 class, will graduate in December when he completes his Federal-aid training in the New Jersey District Office.

## Junior Engineers Appointed

The tenth class of junior engineers, appointed since the end of World War II, was formed recently by Public Roads. From the 1955 graduating classes of our Nation's universities and colleges, 30 junior engineers were appointed in grade GS-5. In addition, 20 junior engineers were also appointed in grade GS-4. The latter group will take educational leave in September to complete their senior year work at their respective universities.

Division offices responsible for recruiting these new employees are as follows:

	Number of employees
Division 1....	13
Division 2....	9
Division 4....	1
Division 5....	9
Division 7....	5
Division 8....	4
Division 9....	9

Junior engineers, GS-5, who have completed their college training were given the following division assignments:

Division 7.—Thomas E. Difloe, University of Arizona, Sanford B. Evans, University of New Mexico.

Division 8.—Elmer E. Biggs, West Virginia University, Alvin R. Cowan and Ernest J. Valach, Montana State College, John F. Gillespie, Ohio State University, Russel G. James and Eugene G. Mubich, University of Minnesota, John J. Kessler, Jr., and Daniel Polis, Newark College of Engineering, Verne W. Segelke, Colorado A & M College, Walter C. Waidelich, Polytechnic Institute of Brooklyn, Van I. Walkley, California Institute

of Technology, and Thomas O. Willette, Iowa State College.

Division 9.—Robert M. Alexander, Norwich University, Hugh E. Berger and Frank A. Brown, University of Kansas, Daniel Dake, South Dakota School of Mines & Technology, Leonard L. Greer, University of Denver, Robert W. Hayman, University of Colorado, Richard G. Kraeuter, Newark College of Engineering, Karl D. McAllister and Roy E. McGuire, Utah State Agricultural College and Charles H. Snow, University of New Hampshire.

Division 15.—John S. Anderson and Lester P. Lamm, Jr., Norwich University, Thomas J. Chipera, Michigan State College, Robert C. Coles, University of Connecticut, Dudley P. Lighty, Jr., Drexel Institute of Technology, and Philip E. Opp, Jr., University of Akron.

Junior engineers in grade GS-4 were assigned for summer employment as follows:

Division 2.—John P. Townsend, Johns Hopkins University.

Division 7.—Donald J. Kelley, Polytechnic Institute of Brooklyn, and Joseph R. Stowers, University of Santa Clara.

Division 8.—Roger A. Bush, South Dakota School of Mines and Technology, Glen L. Green and Stewart W. Johnson, South Dakota State College, James R. Morgali, Stanford University, Kay H. Jones, University of Washington, and Glen K. Hossner, University of Idaho.

Division 9.—Laurence G. Kirby, University of Utah, Robert W. Olsen, Gerald W. Schmoke, and Robert J. Warren, University of Colorado.

Division 15.—Edward S. Keen, James F. Saunders, Jr., and Robert M. Weir, George Washington University, Robert B. McEwen, University of New Hampshire, John F. Mullins, Jr., University of Connecticut, Louis G. O'Brien, Villanova College, and John F. Schmuck, Polytechnic Institute of Brooklyn.

## Foreign Assignees

R.E. HULTMAN, who has been administrative officer in Manila since the setting up of the Philippine Division in 1946, is home on leave prior to reassignment to Costa Rica. C. E. CLINGER was appointed as Mr. Hultman's successor. Mr. Clinger was formerly with the Texas State Highway Department.

ROY KENDALL, equipment specialist, is home on leave from Ethiopia prior to reassignment to Jordan.

JOE M. BEAL and EMERY V. REAGIN completed their assignments in Ethiopia and have returned to the United States.

## Employee Counseling Procedure

Employees should feel free at all times to seek advice and counsel on any matter whether it deals directly with their job or whether it is personal. You are encouraged first of all to seek such advice from your immediate supervisor. However, if you are not satisfied with the outcome of your discussion with your supervisor, you should feel free to discuss your problems with a member of the personnel staff. In the Washington office, you may discuss your problem with either Robley Winfrey, John Razmus, or Sally Allison of the Office of Personnel and Training. In the field divisions and districts, you should see the administrative officer or your district or division engineer.

It is the practice of all supervisors and officials of Public Roads to maintain an "open door" policy at all times to discuss with their employees any problems or other matters of joint interest.

## Foreign Employment Opportunities

The United States is continuing its Point Four technical assistance program in the underdeveloped countries of the world that have asked for aid. One of the most important projects in each country's program involves transportation, and in almost every instance highways play the major role.

Beginning July 1, 1955, the International Cooperation Administration was designated as the agency to correlate technical assistance programs overseas. Public Roads cooperates with ICA through special project agreements in which the Bureau assumes the responsibility for the highway portion of the assistance program.

Generally our responsibility is to supply experienced highway engineers who will work with local engineers, giving the hosts the benefits of our experience in modern highway practices. In some cases our efforts must go beyond that point. A highway organization must be initiated where no department or highway system formerly existed. Under such conditions it is necessary to supply technicians of every grade from GS-7 to GS-14. Operators, mechanics, shop superintendents, maintenance foremen, and administrative help (male only) are needed.

Each foreign assignment is a challenge to the technician to discover what is lacking in the country, then correct the deficiency, and get the job done. Responsibilities and authority are increased because each

technician must spread his efforts over a wide field, since it is not feasible to supply talent in the amount available in domestic operations. A tour of foreign duty is one of the most valuable and broadening experiences.

## OVERSEAS

Overseas employment on ICA projects provides salary differentials for classified posts ranging from 10 to 25 percent; post and quarters allowances; home leave in addition to regular annual and sick leave, with travel provided for dependents; per diem for dependents on travel status; shipment of baggage and household goods; and yearly step increases in salary regardless of grade. Public Roads is presently cooperating with ICA in the Philippines, Turkey, East and West Pakistan, Jordan, and Liberia, with the immediate prospect of others. It is planned to announce vacancies periodically so that all domestic personnel will have an opportunity to apply. Inquiries concerning foreign assignments should be addressed through your deputy commissioner, or division engineer to Robley Winfrey, Acting Chief, Personnel and Training Office, U.S. Bureau of Public Roads, Washington, D. C.

## INTER-AMERICAN

The Congress has recently authorized an accelerated program for completion of the Inter-American Highway, and total United States and co-operator funds available for the fiscal year 1956 amount to \$56 million. To further this program, the Inter-American Highway Office is in immediate need of engineering personnel for assignment in Central America. Engineers in grades GS-7 to GS-12 are needed. Those interested in assignment to the Inter-American Highway program should make application through the Bureau's Personnel and Training Office, Washington, D. C.

Under the accelerated program, most of the work will be by contract construction with the contracts awarded by the Bureau of Public Roads in some countries and by the local highway organizations in other countries. Personnel will ordinarily be stationed in the capital city of each country or at construction camps. Personnel stationed at camps are generally allowed a foreign salary differential of 15 to 25 percent of their salary and quarters. Personnel stationed in capital cities usually receive a quarters allowance which will provide for the cost of an apartment or a house.

A knowledge of Spanish is helpful but not necessary for work on the Inter-American Highway.

The route traverses varied country from sea level to about 11,000 feet elevation, and as usual in the tropics, the climate varies with the altitude. Panama City and Managua, Nicaragua, have warm climates the year round. San Jose, Costa Rica, Tegucigalpa, Honduras, and Guatemala City, have almost ideal climates, with cool nights and warm days, seldom, if ever reaching 85°F. There are two seasons of about 6 months each, the rainy season from May to October, and the dry season from November to April.

## Foreign Engineer Training

Activities of the Foreign Engineer Training Office have continued at a high level with approximately 40 highway engineers from other countries participating in training programs arranged by that office. Twenty-six officials from 13 Latin American countries participated in the 4-week seminar and observation program described in the June issue of THE NEWS.

Recent arrivals in the United States include 11 engineers from the Philippines, and 8 from Thailand. One of our recent visitors, Mohamed Farid Akl while in Louisiana, was made an honorary citizen of the City of Abbeville.

Foreign engineers returning to Washington have high praise for the assistance given them in the field by both Bureau and State highway department personnel.

## A Possible Record

District Engineer Stubblefield of Oklahoma claims a record of some sort for his office which may be challenged.

In the recent past, eight official visitors descended in one day on the District Office—three from Washington, D. C., four from the Division Office, and a foreign engineer from Iran.

The visitors were assured that the posting of storm warnings over much of Oklahoma that day was a coincidence.

## Professional Activities

Joseph Barnett, Assistant Deputy Commissioner of Engineering, recently visited St. Louis, Phoenix, Tucson, and several cities in California. His principal mission was to iron out differences on urban additions to the interstate system. During the trip Mr. Barnett appeared on a television program in St. Louis, and presented papers at the meeting of the American Society of Civil En-



gineers, the San Diego conference of the Institute of Transportation and Traffic Engineering, and the meeting of the Western Institute of Traffic Engineers, at Berkeley, Calif. In these conferences he described the development of the geometric design policies and discussed standards for interstate highways.

### District Engineer on TV Panel

"This is Iowa Talking," a one-half hour interview-type program regularly sponsored by WOI-TV in Ames, selected District Engineer W. E. Reed and John G. Butter, Chief Engineer for the Iowa State Highway Commission, as their principal guests for the evening of June 17.

The subject selected for interview was Iowa Highway Problems. A number of favorable comments concerning this TV appearance have been heard throughout the area.

### SICK LEAVE

A recent review by the General Accounting Office of the leave practices in one of the major executive departments of the Federal Government showed, among other things, a high incidence of sick leave for short but frequent periods, and the taking of extended periods of sick leave by employees contemplating retirement. As a result of this review the Bureau of the Budget has requested that each executive department and agency make a self-audit and report the findings and the action taken or proposed to be taken to bring to an end any abuses which may be found.

Pending receipt of instructions from the Department relative to the scope of the audit and report to be made by the Bureau, an audit was made of a small group of about 60 employees in the Washington office. It was found that for this particular group no extended sick leave had been granted immediately prior to retirement; that an average of approximately 57 percent of the leave earned during the period under review had been used during that period; and that there were a very small number of employees who frequently took sick leave in periods of 1 or 2 hours or 1 or 2 days and who had no substantial balances of sick leave to their credit.

Generally, it has been found that employees who use their sick leave in frequent short periods are in positions involving work of a repetitive nature and they sometimes take sick leave for minor dispositions which do not incapacitate them for performing their duties. This in-

dicates a lack of interest in their work or that their supervisors have not made them feel that their services are sufficiently important to require them to stay on the job unless incapacitated. It also indicates some lack of administrative supervision and control of sick leave.

### REAL INSURANCE

Sick leave is one of the most valuable benefits which the Federal Government provides for its employees and a substantial balance of sick leave is in reality sick and accident insurance. It is a privilege extended to employees specifically to provide continuing compensation when it is necessary for them to be absent from duty because of actual illness, injury, or other reasons as outlined in the Sick Leave Regulations. It is a duty of every employee, therefore, to request sick leave only for those purposes contemplated by law and regulation. It is also a duty of every official authorized to approve sick leave to assure himself that each claim for sick leave is justified under the regulations. This does not mean that every application for sick leave should be investigated or even questioned, but it does mean that the need for frequent use of such leave should be ascertained. The repeated use of small amounts of sick leave is proper when required for periodic treatment of a chronic ailment, for extensive dental work, or under other similar circumstances, but the official who approves the application for the leave should know the reasons for its use.

The Management Improvement Committee of the Iowa District Office, as a part of a regular continuing program, provided an opportunity for the clerical staff to observe at firsthand many of the engineering functions of their office.

Five typists and two staff engineers visited a wide variety of active construction projects within 50 miles of Ames during July. At each stop design and construction features, materials, and equipment were explained. The interest and enthusiasm displayed by the typists was surprising. Names and terms which were merely words in the past, took on new meaning. Increased knowledge of road-building has given an added interest to the typing positions that was understandably lacking before the field trip.

### Suggestion Awards

In addition to the award to Hurnie H. Whitehead mentioned separately,

suggestion awards were made recently to the following Bureau employees:

OLIVER C. LOCKHART, bridge engineer in the Utah District Office, received \$50 for his suggestion that the Washington office reproduce and circulate to all State and Bureau offices examples of good structural details from bridge designs submitted by the various States.

FLORA E. BRECK, clerk in the Division 8 Office, was awarded \$25 for her suggestion proposing the periodic issuance of a letter or leaflet to Public Roads personnel on "Better Writing." This suggestion applies to Division 8 only. A similar idea has been under consideration in the Washington office for a long time and will be carried out as a function of employee in-service training.

*For the possible guidance of employees who have suggestions in mind, here is a partial list of those not considered feasible for adoption in Public Roads.*

Adjustments of closing date for fiscal records in district offices to more nearly coincide with the Washington office closing date.

Discontinuance of the biweekly pay status telegrams in the district office.

A central office in the Washington office for handling all informational data concerning State highway department work.

Printed form for Federal-aid system transactions in lieu of individually typed memoranda.

A research project to compile a list of highway finance research projects in progress.

Typewriter equipped with algebraic symbols.

Elimination of duplicate copies of construction inspection reports for projects combined under one contract and use of cross referencing for filing purposes.

Integration of operating functions of the Washington office into a line organization headed by a field operations officer.

Application of quality control to maintenance operations. Application of quality control to administration of the Federal-aid secondary provision of the 1954 Act.

Simplification of road type classification procedures to provide a 1-column type code.

Inflation-supported tent. Black salt for melting ice.

Elimination of Federal-aid project markers.

Use of bearings established on land lines in highway location surveys in National Forests and Parks.

Posting preliminary engineering and right-of-way in the PS&E column

in district office Federal-aid fiscal records when the program is recommended by the district engineer.

Purchasing lumber for stock at the woodwork shop at the Langley Research Station in Virginia.

Circular trigonometric formulae chart. A per diem calculator.

Submission by railroad and utility companies of progress bills on a percentage basis, using the estimate of cost as a basis, itemization to be included only in the final bill.

Recording Federal-aid accounts and payments to the nearest dollar only. Training courses in photography for field engineers.

Discontinuance of tables CA-2 and CA-3 (contract award data).

Question and Answer Section in the News in PUBLIC ROADS.

A design for concrete paving slabs to prevent pumping, involving the construction of a barrier at each bottom edge of the slab.

Use of Form PR-37 to notify States of approval of plans and to authorize advertisement in lieu of letters of authorization.

Elimination of signatures on each copy of country highway transportation maps and certification of approval on the letter of transmittal.

Delegation to the States of responsibility for the weekly sworn affidavits required of contractors and subcontractors by the Anti-Kickback Act in States operating under the 1954 Secondary Road Plan.

Handling as Class II, and payment at the division level, of vouchers where disallowance of the entire utility or right-of-way claims in the final voucher would not affect the amount to be paid to the State under the project agreement. (It is proposed that the same purpose can be accomplished by classifying cost of right-of-way or adjustment of railroad or utility facilities as non-participating items.)

Acceptance of certification by the State of satisfactory maintenance under the 1954 Secondary Road Plan in lieu of periodic maintenance inspections by Public Roads.

Compilation of a list of all reports required for field submission, including frequency and due dates, and a management study of the list.

Attachment of an analysis form, including such items as necessity, frequency, utilization, etc., by the originating office to every report written during a specified period.

Inspection of projects on a sampling basis under the Federal-aid secondary program.

Carrying mileage to the nearest one-tenth of a mile on all Bureau work.

Use of a single length measurement in determining bridge lengths, based on the distance back to back of back-

walls if present, otherwise on the distance end to end of bridge floor.

Delegation of authority to the district engineer to approve Federal-aid secondary programs.

Exclusion of all detail in the final voucher, Form PR-20.

Limitation of the use of the term "Federal-aid project" to a construction project wholly or partially financed with Federal-aid funds, and the use of some other term for a section of a Federal-aid route designated as a Federal-aid project for numbering purposes.

Use of both sides of the paper for carbon copies of memorandums or letters of more than one sheet, to save paper and filing space.

*Examples of suggestions previously adopted include:*

Part-time employment of high school students for certain clerical duties. (Authority exists under Civil Service Regulations for part-time employees, provided their eligibility is established on Civil Service rolls.)

Consolidation of travel authorization forms for field parties.

Familiarization of equipment operators with instruction and operation manuals.

Alternate bids for materials used on large viaducts or bridges where large footages of piling are required under foundations.

Use of Standard Form 63 for noting office visits and telephone calls.

Letters of commendation from the Commissioner to retiring employees. (Letters to retiring employees are written by both the Secretary of Commerce and the Commissioner.)

*Proposals under consideration before suggestion was received include:*

Conversion of fiscal control records from machine to manual operation in certain district offices.

Revision of Manual of Instructions. Simplification of the Annual Maintenance Report.

*Suggestions referred to Departmental officials or other Government agencies and rejected for various reasons include:*

All-expense tours as awards for suggestions.

U. S. Savings Bonds in lieu of cash awards for suggestions. (The Incentive Awards Act provides for cash awards only.)

Uniform transmittal slip for use of all Government agencies.

Pooling of large office equipment for all Government offices within an area.

Local printing of a temporary supply of new Standards Forms until a supply can be made available from the Government Printing Office.

Redesign of length-of-service awards. (This has been under consideration by Department officials for a long time.)

Printing of Standard Form 64, Office Memorandum, on onionskin.

### Position Descriptions

On several occasions it was brought to the attention of the Office of Personnel and Training that supervisors were not properly discharging their responsibilities in connection with the review of position descriptions prepared by subordinates. In at least one instance the Civil Service Commission took cognizance of this fact.

To prevent further confusion as to the responsibility of the supervisor with respect to the review of position descriptions, the following comments are made.

Ordinarily it is expected that the person who performs the work of a position should describe that position. Wherever appropriate, that person should be counseled by his supervisor through a preliminary discussion of the position and the approach to be taken in describing it before the description is written.

### REVIEW BY SUPERVISOR

Once the description is prepared by an employee in rough draft, it should be reviewed for accuracy and adequacy by the superior. The supervisor should look first for completeness and clarity. He should then check for accuracy and under- or over-emphasis. If the employee has any erroneous concepts of the scope of his work, the degree of his responsibilities, or the relation of his position to other positions, the supervisor should correct such misunderstandings at this time. Every attempt should be made to reach agreement between the employee and supervisor as to how the position should be described. If agreement cannot be reached, either may amend his certification of the description on Standard Form 75 and attach supplementary comments.

The responsibility and right of each employee to report his work as he knows it is recognized. It is also assured that the employee's valid interest in classification of his position will receive appropriate attention. If an employee's description shows duties that differ from an approved and desired plan of organization, the supervisor should change his assignments accordingly.



## CONVERSION TO WAGE BOARD

Public Law 763, 83rd Congress, among other things requires that employees in certain occupations be paid at hourly wage rates that generally match the prevailing wage rates for the same work outside the Government. Up to now most of our employees in these occupations have been paid according to the salary scales established by Congress which do not necessarily have any relation to the going rate in private employment. This change in the pay system applies to all tradesmen, craftsmen, and laborers who are regularly employed by the Department of Commerce, including supervisory workers.

The new pay system became effective on July 17. Most employees affected by this change have been informed by the notice of personnel action. Under the wage board schedule, the new rate of pay should not be less than it was during the previous pay period; most employees received higher rates of pay commensurate with prevailing rates for private employment in their locality. Employees whose pay status was changed from annual to hourly rates received all of the benefits of the recent pay raise authorized by Congress.

The Department of Commerce has requested that all bureaus adopt a uniform Department-wide wage board system patterned after the Department of the Air Force wage system and utilize rates established by their wage board.

### EMPLOYEES GAIN

Under this system, wage surveys will be made from time to time. When ever it is found that wage levels outside the Government are substantially different, new wage schedules will be authorized. Employees who are placed under the new pay system have nothing to lose. No one will be affected by any change in annual and sick leave benefits, job security, etc. Employees will gain through higher rates of pay and proportionally increased benefits under the retirement and insurance systems.

Additional information concerning the pay plan, the wage schedules utilized, wage level assigned to your job, and the pay rate established for you may be secured through your supervisor or the Office of Personnel and Training.

## REPORT FROM ETHIOPIA

The Imperial Highway Authority celebrated its fourth birthday this

year. Arrangements have been completed for the Bureau of Public Roads to continue in responsible charge of the management for another 2 years.

Rex S. Anderson, our Division Engineer, writes that Ethiopia is entering an era in which the impact of highway transportation will change the lives and habits of the entire population. Highway conditions have improved immeasurably during the past 4 years. Trucks are now making the run from Addis Ababa to Assab in 2 or 2 1/2 days and the return trip, climbing 8,000 feet, in 3 days. Formerly these trips required 2 and 3 weeks, even in good weather.

In 1954, rates for hauling by railroad and highway were reduced due to improvement of the Addis Ababa-Assab road. Savings of more than Eth. \$1.5 million on the transportation of exports and imports resulted. This saving was computed by comparing 1954 hauling rates and tonnages from Addis to Assab and Djibouti to 1951 railroad rates.

The increasing importance of coffee shipments from Jimma warranted assignment of a high priority to that road. Equipment and personnel were concentrated there during the fourth year, and reconstruction is now virtually completed. Today, trucks require 1 day for the trip from Jimma to Addis Ababa compared to 5 days or more before the road was improved. Passenger cars make the trip in 6 hours.

## Secondary Road Plan

Thirty-two States applied and were approved for operating under the 1954 Secondary Road Plan as of July 15.

States that had not applied as of that date were as follows: Div. 1, Connecticut, New Jersey, Rhode Island; Div. 2, Delaware, Ohio, West Virginia; Div. 4, Indiana; Div. 5, Minnesota, North Dakota; Div. 6, Oklahoma; Div. 7, Arizona, Nevada; Div. 8, Idaho, Montana, Washington; and Div. 9, New Mexico.

## Weighing Vehicles in Motion

Vehicles are being weighed while traveling at their normal highway speeds by electronic scales on U. S. 1, 4 miles south of Woodbridge, Va. The recorded vehicle weights are used in enforcing weight regulations designed to protect the State's large investment in highway surfaces. The records also provide data on road usage by trucks and the frequency of heavy loads and tonnage movements. This information aids materially in the design and development of future highway systems. Successfully weigh-

ing vehicles in motion at their normal highway speeds removes the traffic hazard of stopping trucks on the highway or having them leave and re-enter the traffic stream. It also results in weighing trucks more economically.

The first electronic scale for weighing vehicles in motion was constructed on the Shirley Memorial Highway by the Virginia Department of Highways as a cooperative research project with the Bureau. The present scale, constructed by the same parties, embodies those improvements found to be desirable from the original research and will be operated in conjunction with the static scales at the gross-weight and axle-load enforcement station. Through research feasible methods will be developed for its application, so that only the overloaded vehicles or those with loads approaching the legal weight limits need be stopped and weighed statically. In its present form the speed of each vehicle, the spacing between truck axles, and the weight of each axle are recorded. The mechanism can also be set so that a bell rings or other apparatus is actuated whenever a truck passes having an axle load exceeding a predetermined weight.

### ELIMINATES DELAY

The new electronic scale is to be used in conjunction with the existing static scales which are operated continuously by the Virginia Department of Highways. The static scale installation is one of the most modern in the country with three platforms for traffic in each direction of travel so that trucks can be weighed accurately during a short stop. The electronic scale will eliminate the delay to most trucks which is caused by the relatively few operators who exceed the weight limitations. Research will be continued to improve its accuracy and automatic weight-recording mechanism.

Electronic scales for weighing vehicles in motion are also under construction by the Minnesota Department of Highways for enforcement and highway planning purposes. The Oregon and Iowa highway departments have also installed electronic scales to obtain planning information.

## Fair and Cooler

Keeping cool and comfortable during mid-summer months in Iowa has its problems. Locally known as "corn weather," the high temperatures and humidity promote the growth of the famous Iowa product, but human activity is discouraged. Thanks largely to the initial efforts of the Commissioner, seven rooms of the Dis-

trict Office are now equipped with individual 3/4-ton air conditioners.

The Kentucky District Office, located for many years on the third floor of the Post-Office Building, Frankfort, was moved during July to the Caplinger Building, 107 Bridge Street. The latter building is brand new, air conditioned, and modernly lighted. The new location is a considerable improvement over the Post Office Building, where it was necessary to climb three long flights of steps.

## The I's Have It

It's alright to emphasize "I," if you use it to start the words "initiative," "intelligence," and "industry."

## Bridge Out

A touring couple who wanted to cross the Mississippi River from Crawford County, Wis., to Lansing, Iowa, will have to wait a few more months before they can accomplish what their obsolete road map told them was possible.

Engineers supervising construction of the replacement bridge were surprised when a tourist couple drove up onto the former approach span and asked how soon the bridge would be open. Even though their travel route was based on an old tourist map, they were determined to cross at that point. The State engineers suggested that they not wait for the completion of the bridge but to include it in their next year's touring program.

## EXPRESSWAY PROBLEMS

In a crowded city like Chicago, new highways often must utilize whatever space is available and this may require intensive study of adjacent activities. One such location involves the Congress Street Expressway which must squeeze through an existing passage in Chicago's 2-block-square post office building. Though access to the expressway is limited, it is surrounded by activities which include not only the routine congestion of the city streets, but railroad and river traffic, while a few stories above helicopters use the roof for regular air mail service.

Far beneath the surface a subway is being built to provide a new location for part of the mass transit system. In Chicago, tunneling for subways, sewers, and water mains is not unusual, but at this location it

required passing through caissons which are supporting the building with a landing field on the roof, and an expressway through its middle. This problem was solved by constructing a ring around the subway tube strong enough to replace the portion of the caisson removed.

In the tunneling operation work, crews have run into a different type of caisson than that shown on their plans. This unforeseen contingency developed into a million-dollar problem when it was decided that additional and different construction would have to be added to the contract. The city of Chicago appropriated \$1 million to cover this extra work.

## FIRST FEDERAL ROAD

In the year 1806 Congress appropriated \$30,000 and authorized the President to appoint a commission to lay out a road westward from Cumberland. This was the beginning of the famous Cumberland Road, now U.S. 40.

A contract between Henry McKinley, a Maryland contractor, and Albert Gallatin, Secretary of the Treasury, was signed on May 8, 1811, for a section of that road starting in Cumberland and "ending at a place on said road two miles and two hundred and forty-six perches distance." A perch was 16.5 feet or the equivalent of one rod in length. The contractor was paid \$21.25 for each perch. Hence, our first Federal road was built on a lineal-cost basis for a completed facility.

## Studies of Paved Shoulders

The practice of paving roadway surfaces to the full shoulder width in an effort to decrease maintenance costs and improve the utility of the shoulder for emergency use has shown a marked increase in the past few years. Western and Southwestern States in particular have added considerable mileage of this type to their primary highway systems. Methods and materials of construction vary widely; sometimes the shoulder surfacing material or textural treatment differs from that of the traveled lanes whereas, in other instances, the surface is of uniform texture and material for the entire roadway width. Many two-lane rural roads of this type differ very little in appearance from four-lane undivided roads with no shoulders.

The increase in this type of construction has given rise to a number of questions dealing with the regulation and control of traffic. For example, how should the pavement be

marked so that the highway will carry its traffic load with least congestion, with lowest maintenance cost, and with the highest degree of safety? What messages carried by regulatory signs will best assure safe and efficient use of the highway? Does this type of construction provide a safer and more economical highway than the conventional two-lane road with wide but unsurfaced shoulders? These are typical of the questions troubling highway officials in many States.

### DRIVER BEHAVIOR STUDIED

As an initial step in appraising the merits of rural roads with paved shoulders, a study of driver behavior has been undertaken cooperatively by several of the State highway departments and Public Roads. During a recent 8-week period, two technicians from the Washington office working with State personnel measured the speed, transverse position and spacing between vehicles on selected sections of highways in Arizona, California, New Mexico, and Texas. The manner in which passing maneuvers are performed—whether they are made on the right- or left-hand side of the passed vehicle, whether the passing vehicle crosses the centerline or the passed vehicle uses the shoulder, and whether passings are performed in the face of oncoming traffic—are also recorded.

The studies are now being continued in several other Western States including Colorado, Idaho, Oregon, Utah, and Washington. The States, as well as the District offices of the Bureau, provide assistance in the selection of study sites, and several men from the highway departments in each State aid in the collection of the field data. Analysis of the data gathered on locations in any one State is performed in most cases by that State following procedures outlined by the Traffic Operations Section of the Highway Transport Research Branch where a combined report for the studies in all States will be prepared.

The equipment, which is of a highly specialized nature, was developed by the Traffic Operations Section and is being operated by William D. Whitby and Bernell A. Porter with the assistance of State personnel.

## Geophysical Investigations

A series of demonstrations of the use of electrical resistivity equipment were held in Division 9. These demonstrations were conducted by R. Woodward Moore, Physical Research Branch, in cooperation with State and Division 9 personnel. They illus-



trated the value of this type of equipment in locating gravel deposits, determining nature of material in cuts, and foundation conditions at bridge sites. The Division 9 Office is purchasing a resistivity outfit for future use.

## Detroit Traffic Study

One of the most ambitious home-interview type origin and destination traffic studies ever undertaken is nearing completion in the metropolitan area of Detroit. This work is being conducted by the Michigan State Highway Department, Wayne County, and the city of Detroit in cooperation with Public Roads.

The survey area embraces 830 square miles with a population of 3 million. Besides Detroit, the area includes 43 incorporated cities and villages. There were 860,000 dwelling units in the study area in 1953. A 4 percent sample was selected for interview in the urbanized area and a 10 percent sample was selected in the suburban and rural areas.

Besides home interviews, 105 outbound and 109 inbound external stations were operated during a 90-day period in 1953. Vehicles totaling 258,000 passed these stations and about 40 percent of the operators were interviewed.

The survey has now entered the final phase which is the preparation of reports. One of the interesting features of this survey was the method of processing field data. An electronic computer was used to process 453,000 field survey cards from which 1,400,000 trip-tracer cards were produced. From the tracer cards it was possible to develop contour desire charts between points of trip origin and destination, and thus determine a comprehensive traffic-desire pattern for the Detroit metropolitan area.

The entire project will cost about \$750,000. During the peak period of 1953, 210 persons were employed.

## CONSTRUCTION PROJECTS

The Bureau recently completed a 410-car parking area at the Carlsbad Caverns for the National Park Service. Extreme care and rigid control were necessary during blasting and excavation directly over the Cavern's "Big Room," about 500 feet underground. Only minor rock falls in the caverns occurred and since all blasting was done at night, there were no interruptions in the scheduled trips for visitors.

The New Jersey District Office reporter is confident that his office has set a record in the completion of a Federal-aid project costing nearly \$2 million. The project involved widening of an existing highway located on the urban system. The schedule for the performance of this work was as follows: bids opened, May 20; contract signed, May 23; work begun, May 24; pouring of concrete, June 2; and the finishing of concrete work on July 6 (12-foot strip, .25 miles long).

Contract requirements restricted operations on weekdays and prohibited work on Sundays and holidays so as to favor free movement of traffic which averaged 40,000 vehicles per day during the week and 60,000 vehicles per day over weekends.

New Mexico recently completed its first precast, prestressed concrete bridge over the Rio Grande near Albuquerque. This modern bridge with a 26-foot roadway replaces an old steel truss 15-foot roadway bridge, and will provide much needed service to a rapidly developing area west of the Rio Grande.

According to one of the Division office reporters, the pamphlet "PLAIN LETTERS" recently distributed failed to impress the employee within that Division responsible for routing publications through their offices. On the back slip appeared these words—"Please expedite."

## Toll Bridge

West Virginia now has under construction the first toll bridge in the State to be financed with Federal-aid funds.

The West Virginia project is located on the Federal-aid secondary system. Since the Oldfield Act, which provided for Federal assistance in the construction of toll bridges, was passed prior to the establishment of the Federal-aid secondary system, careful legal consideration was necessary with respect to the eligibility of the project for Federal aid.

The Commissioner of Public Roads approved Federal-aid participation in the preliminary engineering phase of the project in December 1952, with the understanding that the State Legislature make provisions to require that the bridge be operated and maintained free of tolls when the State's share of the cost was reimbursed from

toll collections. Subsequent action by the West Virginia Legislature amended their Code to include this special provision which conforms to existing Federal-aid laws.

Construction on the bridge began this spring, and completion of the 1,432-foot structure over the Kanawha River near Winfield and Red House is scheduled for 1956.

## District Office Legionnaires

During a recent membership drive by the American Legion, all veterans of the Florida District Office who were not already members became Legionnaires. In recognition of this office having 100 percent membership, a group photograph was made for publication in the American Legion magazine and local newspapers.

## HISTORIC ROAD

A portion of New York State Route 32 north of Saugerties, now under construction, follows the location of one of the oldest highways in the area. Originally an Indian trail through the Catskill Mountains between Rondout Creek and the Mohawk River, the trail was known as the "Footpath" by colonial settlers and was used in travel from Kingston to Albany. Later, after development for wagon traffic, it was called the "Queen's Highway," and then in 1702 the road became a town highway known as the "Old King's Road."

The reconstruction will provide a 24-foot bituminous surfaced highway which will utilize the original location at the south end of the project.

## The News in PUBLIC ROADS

This is an official publication of the Bureau of Public Roads, published bimonthly by and for the employees of Public Roads.

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