

NOAA WEEK

Wind Finding System Gets Sea Trial on DISCO

A Weather Service experimental wind-finding system which uses existing radio navigation facilities to track balloon-borne weather instruments has now been tested at sea. For the past several months, the equipment has been journeying about the United States and Canada in the back of a special Weather Service van. From October 20 to November 6, the system was removed from the van and used aboard the NOAA Ship DISCOVERER, which was taking part in the Cooperative Investigation of the Caribbean and Adjacent Regions (CICAR).

The equipment does the same job as large, fixed tracking antennas, but obtains wind data through signals picked up from shore-based radio stations. The signals are retransmitted by the balloon-borne equipment and picked up by the mobile unit and translated into "fixes." A series of such fixes gives wind speed and direction. Detailed analysis of the data obtained during the tests is now underway.

An extemporaneous experiment was conducted to see if ocean currents can be tracked with the wind-finding gear. A radiosonde, the weather equipment package usually lofted by balloon, was rigged on a raft and tracked by the experimental equipment for as long as the radiosonde battery lasted. At the top of the mast of the cross-shaped raft shown here is a radar target. The radiosonde is strapped immediately be-



low it. Kenneth Shreeve, of the Equipment Development Laboratory in the Weather Service's Systems Development Office, conducted the tests.

Data Buoy Project Office Relocates Units to Miss.

Since early September 1970, the National Data Buoy Project Office has been in the process of relocating its operating divisions from Coast Guard Headquarters to the NASA Mississippi Test Facility in Hancock County, Mississippi. The facility is near the Gulf Coast approximately an hour's driving time from New Orleans. It is expected the move will be essentially completed by the end of January 1971, leaving Captain V. W. Rinehart, Director of the National Data Buoy Project Office, and a small staff of special assistants assigned to NOAA Headquarters.

There are presently ten Coast Guard and two NOAA civilian personnel working at the Mississippi facility for the National Data Buoy Project Office. The Coast Guard personnel are serving with NOAA under a "Memorandum of Understanding". Coast Guard personnel are: Cdrs. P. A. Morrill, W. F. Merlin, and W. M. Flanders; Lt. Cdrs. M. E. Gilbert and R. H. Cassis; Lts. P. J. Hartman, and Ens. G. L. Petrie. Civilian employees are M. M. Autrey, program analyst, and Miss M. G. Bennett, clerk-stenographer. Additional civilian personnel are being hired and will bring the total personnel level at the Mississippi Test Facility to 40 or 45 employees during fiscal year 1971.

During operations with Engineering Experimental Phase Buoys, it is expected that total personnel associated with the National Data Buoy Project at the test facility will be between 65 and 105. An additional building at the facility may be used to assemble the Phase Buoys and from there the buoys can be towed through a canal system to the Mississippi Sound. The Coast Guard support ship ACUSHNET will tow the buoys from Mississippi Sound to their stations in the Gulf of Mexico.

Little Takes Temporary Post; Derr Acts As Lab's Director



Dr.V.E. Derr

Dr.C.G. Little

Dr. C. Gordon Little, Director of ERL's Wave Propagation Laboratory in Boulder, Colo., has accepted a one-year assignment in Melbourne, Australia, to work with Dr. C. H. B. Priestley, head of the Meteorological Physics Division of the Commonwealth Scientific and Industrial Research Organization (CSIRO). Dr. Priestley's group is noted for work in measuring properties and processes of the boundary layer of the atmosphere over land and sea, and particularly for measurements of the fluxes of heat, momentum, and water vapor. Dr. Little, a specialist in lower atmosphere studies, especially techniques for the remote sensing of lower-atmosphere meteorological parameters, will acquaint the CSIRO group with techniques the Wave Propagation Laboratory has been developing for remote measurement of meteorological parameters in the boundary layer of the atmosphere, and will bring back information on the important boundary layer studies of the Australian group for use in NOAA programs.

Dr. Vernon E. Derr, currently Director of the Wave Propagation Laboratory's Atmospheric Spectroscopy Program, will serve as Acting Director of the Laboratory during Dr. Little's absence.

Weekly Climatological Information Provided OEP for Fuel Supply Report to President

H. C. S. Thom, senior scientist in the Environmental Data Service, is supplying weekly degree-day information to the Office of Emergency Preparedness, Executive Office of the President. The information selected from a teletype provides current and comparative data for the week ending Friday, and serves as a basis for evaluating shortages in oil, gas, and electricity.

Author-Teacher Gets Award

Dr. John C. Johnson has been presented an award by the National Weather Service for his work in the field of meteorology. A professor at Worcester Polytechnic Institute, Dr. Johnson is the author of a book, "Physical Meteorology," which is used as a textbook in schools throughout the country. A graduate of Middlebury College, Dr. Johnson has a master's degree and a doctorate degree from Massachusetts Institute of Technology.

Weather Service Hydrologists Hold Seminar

A training seminar for River Forecast Center and River District Office hydrologic personnel of the National Weather Service's Eastern Region was held in New York, Nov. 2-5. Attending the seminar were: William Constantakes, Albany; Grant Vaughan, Akron; Gean DiLauro, Binghamton; Benjamin Kolker, Buffalo; Bernard Rugg, Burlington; Aldo Angelo, Cincinnati; Robert Kilpatrick, Cincinnati; Arthur Baskin, Columbia; Edwin Heath, Columbus; Warren Silverzahn, Hartford; Paul Marin, Hartford; Donald Close, Harrisburg; Anton Haffer, Harrisburg; Augustus Roche, Huntington; Lawrence Windt, Raleigh; John Breckinridge, Richmond; John Williams, Rochester; Lewis Pitt, Trenton; Leo Harrison, Washington, D.C.; Walter Sittner, Washington, D.C.; and James Gilreath. Shown here are (left to right): A. S. Kachic, Assistant Regional Hydrologist and the seminar's organizer; Allen F. Flanders and Ralph F. Kresge, Office of Hydrology, Weather Service headquarters; and John H. Thomas, Regional Hydrologist.



Lake Survey Researchers Conduct Water Motion Study



Lake Survey Center tower

Water Motion is one of the fields of research (others are Water Characteristics, Water Quantity and Ice and Snow) being carried out by the Lake Survey Center in exploring the intricacies of the Great Lakes to meet the ever-increasing economic and recreational demands put on these important waters. Research in Water Motion is concerned primarily with the investigation of those factors which cause water to move, and the different forms such movements take--waves, tides, surges, seiches, currents, and flows. The studies are applicable to some very real and immediate problems.

One of these problems is unpredictable harbor currents, a constant hazard to Great Lakes skippers and navigators. A study was recently completed of Toledo Harbor, which has particularly difficult entrance channel currents. The study was made to meet the Lake Carriers' Association request for information needed to design and build a device to show direction and speed of prevailing harbor currents. The complex hydrography and oceanographic parameters in the harbor necessitated investigation of the current structure and its causes prior to the possible recommendation of such an indi-

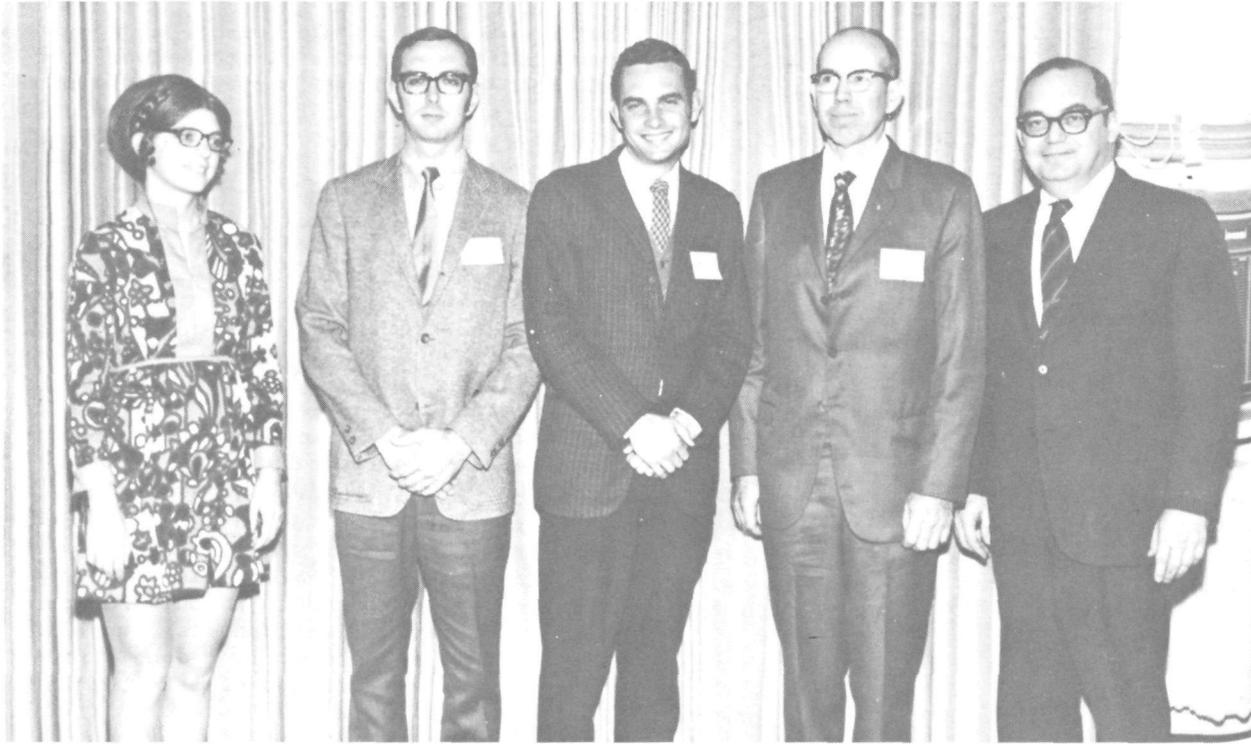
cating device. It was found that a current-indicator system in the harbor suitable for navigational purposes is feasible and may be accomplished by either a direct (a current meter located near the problem area) or indirect method (water level and discharge be continuously monitored, a special-purpose computer calculate the current, and the result be displayed visually). This is only one part of a multi-phase series of studies being made under Water Motion. Others include studies of lake waves (deep-water and shallow-water, wave hindcasting and wave forces), water level disturbances (on Lake Erie and Lake Huron), and energy transfer at air-water interface.

The purpose of the research is to provide information on, or to derive methods for, the solution of specific problems concerning lock and harbor design, modification or improvement; layout and maintenance of navigation channels; shoreline preservation and protection; and maintenance and/or restoration of lake beaches. The results will be used to aid in the control of pollution and ice movement, for public safety, navigation during storms, and the design of new and larger ships for Great Lakes navigation.

National Weather Service Provided Advice To Participants in West Coast Yacht Race

The 1970 Los Angeles to Mazatlan (Mex.) Yacht Race began on November 7 with 54 participating yachts. A prerace weather packet was prepared and presented to the race committee for each participant. George Kalstrom, Los Angeles meteorologist in charge, outlined weather service at the prerace skippers' meeting. A final race forecast by Gordon Shields was made available to each yacht. For the duration of the race, twice-daily contacts were made by radio-telephone patch, between the Los Angeles Weather Service Forecast Office and Emil Kurtz, San Diego meteorologist in charge, aboard the race escort vessel. As an additional service, Allen D. Cummings, of the San Francisco Marine Unit, arranged for special attention to the coastal strip to Mazatlan on the KMI marine broadcasts. This service will be continued until the end of November for the benefit of returning yachts.

Oceanography Students Attend International Scientific Congress



Left to right: Margaret Ann Lucas, Donald J. Frank, David A. Johnson, Cecil E. Williams, and Dr. Robert M. White, NOAA Acting Administrator.

Four U.S. oceanography students presented scientific papers at Interocean '70--the International Congress and Exhibition for Marine Research and Marine Exploitation--held Nov. 10-15 at Dusseldorf, Germany. Margaret Ann Lucas of Littleton, Colorado; Donald James Frank of Caldwell, Texas; David Ashby Johnson, Solana Beach, California; and Cecil Everett Williams of Peacedale, Rhode Island, were among students and professional leaders from Germany, the United Kingdom, the Netherlands, France, Sweden, and the United States who spoke at the Congress. Before leaving for Dusseldorf, the students met in Washington, D.C., Nov. 6, with Dr. Edward E. David, Jr., the President's Science Advisor, and Dr. Robert M. White, NOAA Acting Administrator. To obtain U.S. participation in the Interocean '70 youth program, NOAA's Office of Sea Grant had invited oceanography students throughout the nation to submit technical papers for consideration. The four winners, selected by a panel of leading ocean scientists, were given an all-expense-paid trip to Germany by the German Fair Authority.

Margaret Ann Lucas holds a B.E. in electrical engineering from Villanova

University (1969) and an M.S. in ocean engineering from the University of Delaware (1970). An engineer/aquonaut with the TEKTITE II project, she is working in the TEKTITE Office of the Department of the Interior as Assistant to the Scientific Coordinator. Her paper was entitled "TEKTITE II - A.U.S. Experiment in Underwater Habitation."

David Ashby Johnson is a graduate of the Massachusetts Institute of Technology and now a postgraduate student at Scripps Institution of Oceanography. His paper was entitled "Recent Studies of Sea Floor Erosion: Implications Regarding Disposal of Waste Materials in the Deep Ocean."

Donald James Frank, a graduate of the University of Tulsa, is now a student at Texas A&M University and a candidate for a Ph.D. in chemical oceanography. The title of his paper was "Methane, Ethane and Propane Concentrations in the Gulf of Mexico."

Cecil Everett Williams is a graduate of Purdue University and a postgraduate student at the University of Rhode Island, where he is a candidate for the Ph.D. in ocean engineering. The title of Mr. Williams' paper was "In-Situ Formation Factor Measurement at the Water-Sediment Interface."

Government Liberalizes Employment Benefits For Those Switching to International Work

Employees who leave the agency to serve with international organizations will have more benefits and incentives available as a result of recent changes in legislation. Major changes include the following:

- The "releasing" agency now must pay the employer share of contributions to retirement and insurance programs as long as the employee continues his contributions. In the past, this was an optional decision of the agency.

- Details and transfers to international organizations may be for a term of five years, with extension possible for three additional years if the extension is in the national interest. Previously, the details and transfers were limited to three years.

- An equalization allowance can be paid to employees if the pay and monetary allowances of his international service are less than he would have received if he had been detailed from his federal job. The amount is the difference between the two sums, and is payable when the employee returns to his federal agency.

The Department of State will determine if the extension of the service is in the national interest, and will define the allowances and benefits to be taken into consideration when setting the equalization allowance. The NOAA Personnel Division, AD42, has complete information on the new legislation.

Record of Weather Service Division Praised

The Overseas Operations Division was recently praised by Dr. George P. Cressman, NWS Director, for its efforts in the Moving Ship Radiosonde Program (MSRP). The letter read as follows:

"The attached charts received from Mr. Rockney demonstrate a very encouraging progress in the performance of the MSRP. You are to be congratulated for the remarkable improvement that has taken place in this program over the last two years."

Over a two-year period, utilization at the National Meteorological Center has increased from 50 percent to 80 percent, a 60 percent improvement in the return of the resources invested annually in the MSRP program.

Ocean Survey Issues Map Series On Chesapeake Bottom Features

The second of a series of 15 maps of the bottom of the Chesapeake Bay has been issued by the National Ocean Survey. The maps will provide the first detailed topography of the area, including both the bay and its tributaries, ever published. The bathymetric map extends from the northern part of Taylors Island, south to the Potomac River. Tributaries include the southern portions of the Patuxent and Potomac Rivers and the Hoga River. The initial map (Chesapeake Bay-Annapolis-Plate 4) covered the area north of Annapolis, Md., to south of James Island and included the southern portion of the Severn River; the South, Rhode and West Rivers; and the northern portion of the Patuxent River. The map is an outgrowth of a study initiated by the Atlantic Oceanographic and Meteorological Laboratories at Miami. The new map No. 07630-3756 (Chesapeake Bay - Potomac River Entrance - Plate 8) may be purchased from the NOS Distribution Division (C44), Washington, D. C. 20235 at \$1.00 a copy. A map of the area north of Annapolis to Baltimore is scheduled to be issued later.

Former NWS Man Is Winner in Nov. Election

Dan Maguire, former meteorologist in charge of the National Weather Service Office, Springfield, Mo., was elected State Representative from his Springfield, Mo., district, Nov. 3. Mr. Maguire will be sworn into a two-year term of office in Jefferson City, Mo., Jan. 6, 1971. He has been a television weather-caster since his retirement in 1964.

Lake Michigan Island Once Was U.S. 'Kingdom'

Lake Michigan is the only one of the Great Lakes wholly within the United States. It has a total water surface area of 22,300 square miles, or slightly smaller than the State of West Virginia. Beaver Island, the largest in this Lake, has the distinction of being the site of the only "kingdom" in the United States. In 1847, James Jesse Strang, a Mormon, splintered off with some others and settled on the island, after a disagreement with Brigham Young on their westward journey. Strang proclaimed himself "king," a title he retained until he was killed by members of his own party in 1856. The island was gradually taken over by the Irish.

Health Benefit Plan Premium Rate Changes Set for January 1971

Beginning January 1, 1971, two significant changes affecting health benefits premiums will take effect. The Government's contribution toward premium rates will increase to a higher percentage rate and premium rates in general will increase. The net result of these changes will vary from plan to plan and from option to option. In general, they will

result in a slight increase or decrease in premium rates deducted from paychecks. These changes will take place automatically on January 1 and no action is necessary on the part of enrolled employees.

Listed below are the present and expected premium rates for major employee health plans. Rates for plans not listed may be obtained from Personnel Offices.

OPTION	TYPE OF ENROLLMENT	PRESENT COST TO EMPLOYEE	COST TO EMPLOYEE
			January 1, 1970
Government-wide Service Service Benefit Plan	High	Self & Family	\$13.47
	High	Self	5.60
	Low	Self & Fam	5.88
Government-Wide Indemnity Benefit Plan	Low	Self	2.40
	High	Self & Fam	15.62
	High	Self	6.33
	Low	Self & Fam	6.40
	Low	Self	2.68
AFGE Health Benefit Plan	High	Self & Fam	12.25
	High	Self	4.49
	Low	Self & Fam	6.91
	Low	Self	2.37
Group Health, Washington, D. C.	High	Self & Fam	20.05
	High	Self	7.79
	Low	Self & Fam	12.10
	Low	Self	4.54

Magnetic Tape Recorders Evaluated By F.J. Johnson, Australian Visitor



F. James Johnson of Sydney, Australia, is spending a year with the National Oceanographic Instrumentation Center at the Washington Navy Yard. Mr. Johnson is applying his extensive background in instrumentation to an evaluation of magnetic tape recorders which are used for acquiring

and storing oceanographic data, in both analog and digital formats.

NWS Field Stations Assist in Survey To Improve Telephone Weather Messages

The Bell Telephone System has arranged for a nationwide survey to find out what people want in recorded telephone weather messages. This questionnaire is to be conducted November 30 through December 12. At the same time the Bell survey is being made, the National Weather Service is asking 312 field stations to keep a daily record of telephone requests actually received from the public. Each request is to be classified by type--for example, local forecasts, forecasts for a distant city, marine weather, latest temperature--and by time of day. The combined results of the phone company questionnaire and the Weather Service's "inventory" of queries are expected to provide valuable guidance for improving and expanding the telephone-weather system.

Sacramento Hosts Hydrologic Computer/River Forecasting Seminar



The National Weather Service's River Forecast Center at Sacramento, Calif., recently hosted a Hydrologic Computer and Operational River Forecasting Seminar. Shown in photo are, front row, left to right: Ralph Kresge, Office of Hydrology, NWSH; Walter T. Sittner, NWSH; H. H. Bedke, Salt Lake City, WRH; Glen L. Audsley, Anchorage, Alaska; Albert S. Kachic, New York, ERH; C. E. Vicroy, Office of Hydrology, NWSH; and R. L. Raetz, Salt Lake City. Second row, left to right: David A. Westnedge, Salt Lake City; Francis J. Balint, Computer Div., Suitland, Md.; Randall Fuller, Fort Worth; Ramon Paz Barahona, WMO Fellow, Honduras; Wayne A. Smith, Hartford, Conn.; Pete Baird, Sacra-

mento; Tom Bowers, Cincinnati, Ohio; David Smith, Fort Worth; Robert Miller, Sacramento; Eddie Christensen, Corps of Engineers, Sacramento; and Glen Logan, Sacramento. Third row, left to right: Jerry Nibler, Anchorage, Alaska; George Barnes, R. J. C. Burnash, Kenneth H. Lloyd, and William Arvola, Sacramento; Jack Sheridan, Tulsa, Okla.; Charles H. Howard and Richard D. Tarble, Sacramento; Vail Schermerhorn, Portland, Oreg.; George Patrick, Sacramento; William E. Fox, Atlanta, Ga.; and Raymond E. Barsch, Sacramento. Back row, left to right: Robert H. Dickson, Kansas City; Ben Hablutzl and James Miller, Sacramento; Lars Feese, Harrisburg, Pa.; R. L. Ferral, Ralph Hatch, and Christopher Carr, Sacramento.

Tucson, Arizona, Airport Surveyed

A National Ocean Survey team, headed by Junior V. Teater, is surveying Tucson (Ariz.) International Airport.

Boating Safety Symposium Held in Hawaii

A government-sponsored Hawaii Symposium on Boating Safety was held Oct. 29. Ninety people were registered, including members of the National Weather Service, National Ocean Survey, U.S. Coast Guard, state employees, and others who participated in the program. Fifty others attended solely because of their interest in marine weather and communications.

American Indians Train for Met Tech Jobs

Two American Indians--Larry C. Riggs and Larry Hoskie--are currently assigned at WSO, Winslow, Arizona, under a cooperative agreement for on-the-job training for American Indians between the National Weather Service Western Region and the Bureau of Indian Affairs.

Both graduated from high school last June and are receiving training by Weather Service employees at Winslow in observational techniques and procedures in order to become fully qualified meteorological technicians.

Length-of-Service Awards

The following NOAA employees are eligible for length-of-service during October, November, and December:

Washington, D. C. Area

40 years - Calvin W. Cochrane. 35 years - Kalervo N. Maki, William K. Cloud, Stephen Rose, Granville Emminger, Max Sachs, and Lilburn H. Seaman. 30 years - James M. Beall, Herbert Hallman, Robert F. Sladek, Edward F. Mitros, Bruce G. Hosmer, Joseph W. Fott, Rufus E. Gordon, George J. Littleton, Joseph E. Cooper, Charles Hananavich, Gordon J. Walker, Creighton DeMarr, Elmer L. Williams, Paul Wong, Nicholas Sampogna, Harold G. Williams, Frank F. Fischer, Charles H. Davies, Angelo A. Ferrera, James A. Murphy, Robert A. Landrille, Frank E. Dahlmann. 25 years - Aubrey C. Bladen, Thomas J. Lauer, Margaret Price, Ralph H. Frederick, Raymond Graham, Chester C. Slama, Edwin D. Hawbecker, David J. Kennon, Thomas E. Shirley, James R. Cabiness, A. Ernest Brown, Jr., and Albert P. Kellum. 20 years - Mary M. Gearhart, Richard A. Foster, Bernice M. Holloway, Jimmy G. Gwinn, James L. Courtney, Jerry C. Witt, Arthur R. Kneer, Daisy L. McKelly, Littleton Stewart, James N. Jordan, Phillip W. Barbre, Richard B. Wright, Paul Carter, Charles T. Russell, Alda Madelin Payne, Anita L. Henson, and Alfonso H. Butera.

National Weather Service Eastern Region

40 years - Oscar Tenenbaum, Boston, Mass. 35 years - William Ankraut, ERH. 30 years - William M. Davis, Columbia, S. C.; Silvio G. Simplicio, ERH; Frank M. Mazza, ERH; Abram Schonberger, Atlantic City, N. J.; Jane B. Katusha, Harrisburg, Pa.; Carl S. Andrew, Atlantic City, N. J.; J. Loring Laughter, Asheville, N.C.; Margaret H. Boyle, Philadelphia, Pa.; John G. Purvis, Columbia, S.C.; and Edward T. Clapp, WBFO, Washington, D.C. 25 years - Thomas E. Wahl, WilkesBarre-Scranton, Pa.; Dwight R. Stoffer, Cincinnati, Ohio; Ernest O. Schutter, Bridgeport, Conn.; and Anthony J. Gregory, Boston, Mass. 20 years - Walter Van Etten, Pittsburgh, Pa.; Donald G. Liddy, Washington National Airport; William V. Greco, Erie, Pa.; Maurice R. Laro, Hartford, Conn.; Charles H. Dean, Columbia, S. C.; Vincent M. Gargaro, Pittsburgh, Pa.; and Adolph R. Rosenthal, Charleston, West Va.

National Weather Service Central Region (November)

30 years - Melvin E. Velz, Denver, Colo.; Miles I. Johnson, Lansing, Mich.; John A. Mikina, Detroit, Mich.; and Allen B. Elam, Jr., Lexington, Ky. 25 years - Elroy C. Balke, CRH; Melbourne M. Pidgeon, Peoria, Ill.; W. Bruce McLeod, Sioux Falls, South Dakota; and Raymond Graham, Joliet, Ill. 20 years - Dan A. Mallas, Chicago, Ill.

National Ocean Survey Mid-Continent Field Area, Kansas City, Mo.

30 years - Alton K. Hansen, Mark Maintenance.

National Weather Service Southern Region (November)

30 years - Toxey H. McMahan, Meridian, Miss. 25 years - Walter D. Graves, Daytona Beach, Fla.; and Donald A. Downey, Fayetteville, Ark.

Mrs. Dennett Joins Women's Committee Of Denver Federal Executive Board

Mrs. Joann Temple Dennett, of the ERL Public Information Office, Boulder, Colo., has been invited to join the Federal Women's Program Committee of the Denver Federal Executive Board.

Semtner Wins Award for Computer Services

Lt. A. J. Semtner, NOAA Corps Officer, has received a \$500 Special Achievement Award for his contribution to the computer system aboard the NOAA Ship OCEANOGRAPHER.

Correction

The headline, "\$1000 Survey Nears End," that appeared on page 5 of NOAA WEEK, Vol. 1, No. 7, was in error. The cost of the survey was \$100,000.

NOAA Bridge Club Tournament Winnings To Be Donated to Children's Hospital

The Duplicate Bridge Club of the NOAA employees association will turn over all proceeds of their December tournament to Children's Hospital, Washington, D.C. The charity affair will be held Wednesday, Dec. 2 at the Gramax Building, Room 406 at 8 p.m. All employees and their guests are invited to play.

GPO 902-722

Items to be considered for publication in NOAA WEEK should be submitted to: Office of Public Information, NOAA, Room 804, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

National Oceanic and Atmospheric Administration

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