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NOAA WEEK

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U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

U.S./Canada Study of Lake Ontario To Begin on April 1

NOAA is the lead U. S. agency for a concentrated year-long study of Lake Ontario by about 600 Canadian and U. S. scientists and technicians scheduled to begin on April 1, 1972.

The purpose of the study, known as IFYGL--the International Field Year for the Great Lakes--is to improve the scientific basis for management of Great Lakes water resources.

Dr. Aubert

Dr. Eugene Aubert of NOAA is Director of the IFYGL Project Office, and operational headquarters for the U.S. will be established at Rochester, N.Y. Initial development of the scientific program and continuing policy guidance came from a U.S. Steering Committee chaired by W. J. Drescher, U. S. Geological Survey. Overall scientific policy guidance has been provided by the Canadian and U. S. National Committees for the International Hydrological Decade (I.H.D.), working through their respective IFYGL Steering Committees.

During the study,universities and government agencies from both nations will set up a network of towers and buoys in the lakes, and use ships, aircraft, weather stations, and satellite data to gather information about the 30,000 square-mile drainage basin of Lake Ontario.

Approximately equal resources are being deployed from both countries, and the total allocations by the two nations for the period 1971-1975 are estimated at $15,000,000. (The current IFYGL schedule calls for the intensive data collection program through 1972; completion of field work, data reduction, and initial analyses in 1973; and further analysis assessment, and publication in 1974 and 1975.)

Two data banks are being established, each of which will contain a complete file of IFYGL data, with joint analysis and joint access to the data.

The task of the IFYGL scientists (a joint contribution to the I.H.D.) will be:

(Continued on page 2)

Weather Modification Activities To Be Reported to Commerce

All non-Federal weather modification activities in the United States and its territories must be reported to the Secretary of Commerce under a new Act of Congress signed by the President on December 18. The program will be carried out by NOAA for the Secretary of Commerce. Regulations implementing the Act--Public Law 92-205--are being drafted for publication in the Federal Register. NOAA will maintain a record of the reported modification activities and publish periodic summaries, as required by the Act.

NOAA Scientists Are Analyzing Seismic Data From Cannikin

Cannikin, the nuclear explosion detonated beneath the Aleutian island of Amchitka on November 6, produced some of the most precise seismic data ever recorded for a tremor, natural or manmade.

The Aleutian Seismic Program was intensified in 1969, at the request of the Atomic Energy Commission, and is now conducted by the Earth Science Laboratories of the Environmental Research Laboratories, headquartered in Boulder, Colo.

From seismic data obtained by the instruments crowded around the Amchitka test site, and by instruments around the world, NOAA scientists have begun assembling their comprehensive portrait of the seismic nature of the Cannikin event. The full picture awaits thorough analysis of present data and data being gathered through the coming year.

Seismic and other geophysical data from Cannikin will do much to characterize one segment of the Aleutian Island arc in substantial detail, and provide important clues to the structure and behavior of similar geologic features elsewhere. The intensive data-gathering effort in the Aleutians is providing a detailed view

(Continued on page 4)

Response to Questionnaire Will Aid NWS Long Range Planning

In October, the National Weather Service sent questionnaires on retirement plans to all NWS employees. Replies have been received from 1,840 employees, including 80 percent of the 594 employees eligible for voluntary retirement by June 30, 1972. Although many younger employees showed interest in retirement planning, the bulk of responses reflecting specific plans were from people 45 and older. The results of this survey are being used primarily to predict attrition, and secondarily to help make more accurate determinations of how many people in the longer term should be brought into the career fields of the National Weather Service.

Dr. George P. Cressman, Director of the National Weather Service, said that "the contribution of all employees who responded is greatly appreciated."

Lake Study *(Continued from page 1)*

--To report the condition of the lake, specifically the hydrological, chemical, and biological features;

--To describe the lake's processes, and the interrelationships among the hydrological, chemical, and biological elements.

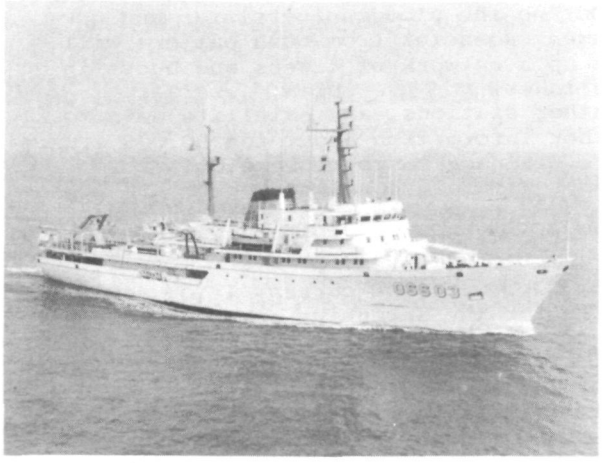
--To create computer models that will enable scientists and others to predict the effects of proposed changes in lake uses or lake environment.

(The Lake Ontario descriptions and models will be useful, by extension, for all large lakes.)

Major problems of lake management that will benefit from the study are pollution control; control of lake levels, which affect hydroelectric power, navigation, and shore erosion; and improved weather forecasts and mathematical modeling of lake-or ocean-atmosphere interaction.

There will be five major data gathering systems:

--Major research vessels to be provided by each nation will make detailed measurements of meteorology and subsurface water characteristics, and will obtain water samples for biological and chemical data. Data on ship position and time will permit information users to know exactly where and when each sample was taken. (NOAA will provide the RESEARCHER from the National Ocean Survey and the ADVANCE II by lease from Cape Fear (N.C.) Technical Institute. A special data system on the RESEARCHER will automatically handle and process the data; the other ships will use conventional data handling techniques.)



The NOAA Ship RESEARCHER

--Specially instrumented buoys (11 Canadian and 10 U.S.) and towers will provide time series data in the lake on air and water temperature, humidity, air pressure, wind speed and direction, precipitation, radiation, and currents.

--Weather radars at Toronto (Canada), Buffalo (N.Y.),and Oswego (N.Y.)will provide precipitation monitoring. Their specially designed automatic equipment makes possible precipitation intensity measurements over the entire watershed on a fine mesh at 15-minute intervals, detail not provided by operational weather radar.

--Rawinsonde stations (Scarborough, Presqu' Ile, and near Hamilton, Canada, and at Stony Point, Sodus Point, and Lakeside Beach State Park, N.Y.) with advanced wind sounding instrumentation will make possible not only the standard pressure and temperature measurements for upper air soundings, but,through a tie-in with a LORAN C navigational system, more precise tracking of the balloons, thus providing very exact wind speed and direction measurements.

--Aircraft provided by Canada and the United States (through NOAA's Research Flight Facility and the National Center for Atmospheric Research) will be used for boundary layer measurements. Other aircraft will utilize remote sensing to obtain surface temperature, snowpack, and ground moisture information not previously available.

Supplementing the five major data gathering systems will be hundreds of temperature, river, and rain and snowfall measuring stations that dot the basin on both sides of the international boundary. Stream gaging stations on all major streams and rivers monitor the water flow. Water levels in wells will be checked periodically, and soil moisture studies will be undertaken periodically to find rates of water infiltration and evaporation.

NOAA Employees Are Honored by American Meteorological Society

NOAA employees (and former employees) were honored in many ways at the American Meteorological Society's 52nd Annual Meeting recently in New Orleans, La.

The highest honor of the Society, the Carl-Gustaf Rossby Research Medal, was conferred this year on Dr. Joseph Smagorinsky, Director of the Environmental Research Laboratories' Geophysical Fluid Dynamics Laboratory in Princeton, N. J.,"for his creative leadership in numerical modeling of the general circulation of the atmosphere."

Dr. Smagorinsky

Dr. Helmut E. Landsberg, who was the Director of the Weather Bureau's Office of Climatology from 1954 until he became the first Director of the Environmental Data Service in 1965, and who is now Research Professor at the Institute for Fluid Dynamics and Applied Mathematics at the University of Maryland, received the Charles Franklin Brooks Award "for his many contributions as Councilor, Fellow, and Vice-President of the American Meteorological Society and for his zeal and dedication in fostering cooperation between the Society and the National scientific community."

Vincent J. Oliver, Chief of the Applications Group of the National Environmental Satellite Service, was one of two winners of the Award for Applied Meteorology, which recognizes outstanding contributions both in research and development of scientific knowledge and in the application of knowledge to the fulfillment of industrial or agricultural needs. Mr. Oliver received the award "for his innovative contributions over the past three decades in the application of new meteorological observations and theory to the problem of weather forecasting and for his creative use of meteorological observations and theory to the problem of weather forecasting and for his creative use of meteorological satellite data."

Dr. Francis W. Reichelderfer, who was Chief of the United States Weather Bureau from 1938 to 1963, received a Special Award "in appreciation of his lifetime of devotion to the American Meteorological Society as charter member, Fellow, and President" and "for his countless contributions to the weather services of the United States and the world."

Lawrence J. Lewis, a meteorological technician at the National Weather Service Forecast Office in New York City and a meteorology student at New York University, was awarded the Howard T. Orville Scholarship in Meteorology.

Each year, five councilors are elected to three-year terms of office--four by the Society's members and one by the Council. Dr. Frederick G. Shuman, Director of the National Meteorological Center, NWS, was one of those elected by the members, and Max A. Kohler, Acting Associate Director for Hydrology, NWS, was elected by the Council.

Of the 21 Fellows elected by the Council from among those who have made outstanding contributions to the science or application of meteorology, climatology, or other area of atmospheric science during a substantial period of years, seven were from NOAA. They were: Frank W. Burnett, Deputy Director, NWS; Arthur F. Gustafson, Meteorologist in Charge, Weather Service Forecast Center, San Francisco, Calif.; Dr. Joshua Z. Holland, Director, Center for Experiment Design and Data Analysis, Environmental Research Laboratories, Rockville, Md.; Karl R. Johannessen, Associate Director, Meteorological Operations, NWS; Silvio G. Simplicio, Director, NWS Eastern Region; Dr. Sidney Teweles, Chief, Data Acquisition Division, NWS; and Dr. David Q. Wark, Research Meteorologist, Satellite Experiment Laboratory, National Environmental Satellite Service.

Programmable and Field Use Calculators Added to Lake Survey Center's Equipment

The Lake Survey Center recently acquired a Wang 720 programmable electronic calculator, which can perform all the regular operations of a desk calculator, and also has most of the features of a small computer. Its system will store up to 1,984 program steps at once. By using its built-in tape cassette reader, a program with up to 20,000 steps (which might take days of manual computing) can be performed in minutes. The Wang 720 prints out its answers on its own IBM Selectric typewriter. In just a matter of seconds, the calculator-typewriter combination can produce an accurate, ready-to-use, well-set-up copy which would take the average engineer and his typist working at top speed an hour or two to produce.

The Center also has been using a somewhat smaller electronic calculator, the Hewlett-Packard 9100B, as an aid in processing field measurements made by its precise leveling parties. This calculator is mounted on the front seat of a truck, and carried along with the survey crew. All measurements made are entered directly into the machine's keyboard, entirely eliminating the traditional notebook and pencil. This calculator checks all the data and will flash a red light if any errors are detected. Surveyors no longer need to spend several hours a day checking and rechecking their computations.

Perry J. Fremont of the LSC Horizontal Control Section, who is writing the programs for the machines, will present a paper on "The Field Use of Electronic Calculators" at the ACSM/ASP convention in March, in Washington, D.C.

Cannikin (Continued from page 1)

of plate tectonic processes, where the Pacific and Bering crustal plates intersect.

NOAA seismologists expect to extract significant new information on the causal mechanisms of aftershocks, and hope to be able to apply that knowledge to an improved understanding of natural earthquake source mechanisms.

Instruments set up at various distances from Cannikin's ground zero measured the dynamic response of the earth's surface to the shocks. The resulting body of information is unique in that it provides insights into some important aspects of what structures can expect from earthquakes in this magnitude range. It is the kind of information usually acquired from the catastrophe of a large natural earthquake in a populated area.

Preliminary values obtained from the recordings at Palmer Seismological Observatory showed a body wave magnitude of 7.0 for Cannikin, and a surface-wave magnitude of 5.8. The cavity collapse 38 hours after the detonation caused a tremor with a body-wave magnitude of 4.8.

A revised estimate of the body-wave magnitude based on the average of values reported by 43 observatories worldwide is 6.8 for Cannikin and 5.7 for the surface-wave magnitude from the average of seven observatories.

Maximum transient vertical ground motion at the control point on Amchitka 22½ miles from ground zero amounted to eight centimeters (four up, four down), four-tenths of a centimeter at Adak Island, 190 miles to the west, and four one-hundredths of a centimeter at Anchorage, about 1350 miles to the east. Maximum transient horizontal motion at the control point was 11.8 centimeters (5.9 push, 5.9 pull) along a radius from the explosion. (One centimeter = .3937 inch.)

A series of numerous aftershocks was recorded following the Cannikin detonation, and aftershock activity continued until the explosion-created underground cavity collapsed 38 hours later. Most aftershocks appeared to be shallow, within a few miles of the surface, and close to ground zero. All aftershocks were less than body-wave magnitude 4--that is, all were less than one one-thousandth the amplitude of the main shock.

Apparently, Cannikin, did not interact with the large-scale processes which control the region's major natural earthquake activity. It appears that global processes, and processes involving the entire Aleutian Island arc, are more important to earthquake activity here than such localized events as underground explosions.

No effect on earthquake activity was apparent elsewhere on the planet. According to the National Earthquake Information Center, the week preceding and the two weeks following Cannikin were unusually quiet, seismically speaking, with no magnitude 6½ class earthquakes anywhere in the world. (Magnitude 6½ and larger earthquakes trigger an alarm at the NEIC.)

NOAA's Honolulu-based Pacific Tsunami Warning System and the Regional Tsunami Warning System at Palmer, Alaska, watched the test very closely. Palmer Observatory continuously monitored incoming data from automated seismic and tide stations dispersed along the Aleutian chain and down into southeast Alaska for any evidence of abnormal wave activity. After Cannikin no wave activity was observed on tide gage that could be distinguished from surf action.

To detect any quasi-static geomagnetic effects associated with the Cannikin event, four proton total-field magnetometers were placed in near-continuous operation for several months on Amchitka, one about 20 miles to the northwest, one about nine miles to the southeast, one at about two miles and one at about six miles from ground zero. Pre-and post-shot data were also taken at 200 locations across and along the White Alice fault, whose surface trace passes within six-tenths of a mile of ground zero.

Within 30 seconds after the detonation, the instrument two miles away showed a 9-gamma increase in geomagnetic field strength. Within five hours this value decreased almost linearly to 7 gammas. No similar step-like change was observed when the crater collapsed. (Gammas are used in expressing the total intensity of the earth's magnetic field, which averages about 50,000 gammas.)

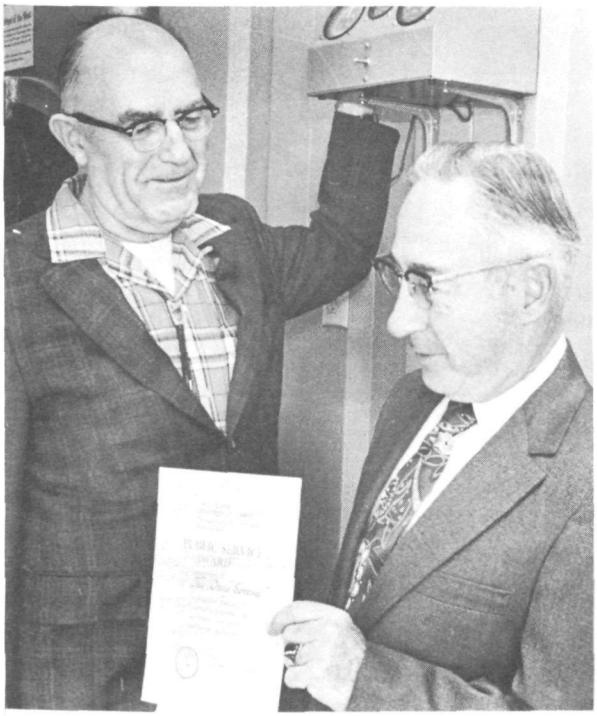
In the White Alice fault study area, centered about a mile from ground zero, difference between readings taken two days before and nine days after the test went from +13 gammas in the fault block containing the shot to -11 gammas northwesterly across the fault. Magnetic mapping shows this pattern repeating along the fault trace rather than distributing radially from the shot.

Initial interpretation strongly suggests magnetic detection of stress release within the shot-containing block, a stress increase across the fault, and a stress pattern consistent with a dislocation along the White Alice fault.

Millions and Millions of Crabs

According to estimates by the National Marine Fisheries Service Auke Bay Coastal Research Center, Auke Bay, Alaska, the sustainable yield for the southeastern Bering Sea king crab fishery appears to be about four million male crabs annually.

Public Service Award Presented To Grand Junction Sentinel



Samuel Kerr (right), Officer in Charge of the Weather Service Office in Grand Junction, Colo., is shown presenting a NOAA National Weather Service Public Service Award to William H. Nelson of the Grand Junction Daily Sentinel, which was cited for the excellence of its presentation of NWS weather products to the public over a fifty-year period. Mr. Nelson, who has handled the Sentinel's weather news during the past 30 years, was mentioned as particularly deserving of commendation.

Mr. Kerr also recently presented a similar award to Radio KREX in Grand Junction for 25 years of service in providing direct broadcasts from the WSO and in rapid dissemination of forecasts, warnings, and other critical weather news.

Employee Group Schedules Valentine Dance

The NOAA Employees' Association will hold a Valentine Dance on Saturday, February 12, from 9 p.m. - 1 a.m. in the Crystal Ballroom at St. Bernard's Church, Riverdale, Md. Music will be furnished by Ralph Graves' Orchestra and by The Colony, a popular rock band. The cost of admittance is $3 per person. Contact your NOAA delegate for tickets and further details.

NOAA Ship TOWNSEND CROMWELL Completes Second Bait Survey

The NOAA Ship TOWNSEND CROMWELL, operated by the Honolulu Laboratory of the National Marine Fisheries Service, recently returned to Honolulu after completing an intensive survey of the marine resources of Micronesia. This was the second in a series of three resource assessment cruises to the Trust Territory of the Pacific Islands to gather information necessary to the development and conservation of the marine biological resources of the vast area to the southwest of Hawaii.

Pelagic resources such as tuna and bait resources that can be used in pole-and-line tuna fishing or in conjunction with purse seining for tuna were assessed on this cruise, which was concentrated in the Marshall Islands.

In 55 daylight hours the rate of sighting of tuna (aku) schools in the seas around the Marshalls was roughly half the rate during peak aku season in Hawaiian waters, but about twice that of the November-December sighting rate in Hawaii.

An estimated total of 50 tons of bait (principally sardine) was found in the lagoons of five atolls-Jaliut, Majuro, Maloelap, Wotje, and Likiep.

Specimens and data were collected for biological studies of the more important fishes, and on two occasions, electronic transmitters were fed to troll-caught aku. The two fish with the small electronic beepers in their stomachs were tracked for a total of 60 hours. During the day they were chiefly concerned with feeding, and at night they swam at a speed of three to four knots in a generally westerly direction.

Information on ocean currents on both sides of the chain of Mariana Islands was collected. These currents are possible mechanisms separating the central and western Pacific skipjack tuna stocks.

The third and last survey of the series is scheduled to leave Honolulu in mid-February.

William C. S. Thomas Dies

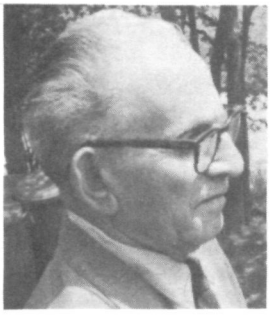
William C. S. Thomas, a management analyst in the Publications Section of NOAA's Administrative Operations Division, died January 17. Mr. Thomas had worked for the Department of Agriculture, the General Services Administration, and the Department of the Army, before transferring to the Weather Bureau as a management technician in 1964. He attended American University and the U. S. Department of Agriculture Graduate School, and served in the Army during World War II.

NOTES ABOUT PEOPLE...

Shown above are two NOAA Commissioned Officers recently assigned as Operations Officers aboard two NOAA Ships. On the left is Commander Ray M. Sundean, the OCEANOGRAPHER's new Operations Officer. Cdr. Sundean was formerly Director of the National Tsunami Warning Center in Honolulu. A commissioned officer since 1958, he served previously aobard the FAIRWEATHER, PATHFINDER and HODGSON.

Lieutenant Commander John W. Carpenter, on the right above, is the SURVEYOR'S new Operations Officer. Since becoming a commissioned officer in 1964, he has served aboard the WHITING and PEIRCE and as Chief of Field Parties G-21 and G-17.

Louise Hooper, meteorological technician in the Climatic Analysis Branch of the Environmental Data Service's National Climatic Center, has retired after more than 27 years of Federal service. Miss Hooper, who began her career as a technical aid with the National Bureau of Standards in Washington, D. C., has been employed by the NCC for the past 19 years.



Dr. Aaron L. Shalowitz, who retired as a special assistant to the Director of the Coast and Geodetic Survey (predecessor of the National Ocean Survey) in 1964, recently was named a member of the Committee on Deep Sea Mineral Resources of the American Branch of the International Law Association. The author of the two-volume legal-technical treatise "Shore and Sea Boundaries,"Dr. Shalowitz' principal concern on this committee assignment will be with problems relating to offshore national jurisdiction in anticipation of the forthcoming international Conference on the Law of the Sea to be held at Geneva in 1973.

Dr. Augustine Y. M. Yao, research meteorologist in the Environmental Data Service's Laboratory for Environmental Data Research, and his wife became American citizens in a swearing-in ceremony in Baltimore recently. A native of Hanshan, Anhwei, China, Dr. Yao received a bachelor's degree from the National Chekiang University, with majors in geography and meteorology, in 1944. He served as an aviation company weather observer in India, Burma, and southwestern China and in 1950 joined the Central Weather Bureau of the Republic of China, and became Director of Sungshan International Airport Meteorological Service. He won a United Nations scholarship to study in the United States in 1954, and received both master's and doctorate degrees from Iowa State University in Ames.

Richard C. (Doc) Lyle, Chief of Support Services in the Administrative Management Division, at the National Weather Service's Central Region Headquarters in Kansas City, Mo., retired on January 10, after more than 32 years of service. Before joining the NWS in 1954, Mr. Lyle had served with the Corps of Engineers both before and after his service in the U.S. Navy from 1941-1944.

A licensed Chiropractor, "Doc" plans to continue his practice. He resides at 5126 Sterling, Raytown, Mo. 64133.

Merritt N. Walter, a Lieutenant Commander in the NOAA Commissioned Corps, is now also a Captain in the U.S. Merchant Marine, a distinction he achieved by qualifying for a Master's license from the Coast Guard, following three months of instruction at the Baltimore Navigation School and eight days of written Coast Guard examinations. He had amassed sufficient sea duty to enable him to take the examinations. A former Navy officer, he has been on continuous sea duty since 1961, except for one year of postgraduate study. He is now authorized to command any seagoing U.S. merchant ship of up to 1,000 tons.

The Commissioned Personnel Division said Lt. Cdr. Walter is believed to be the only NOAA commissioned officer with a Master's license in the U.S. Merchant Marine.

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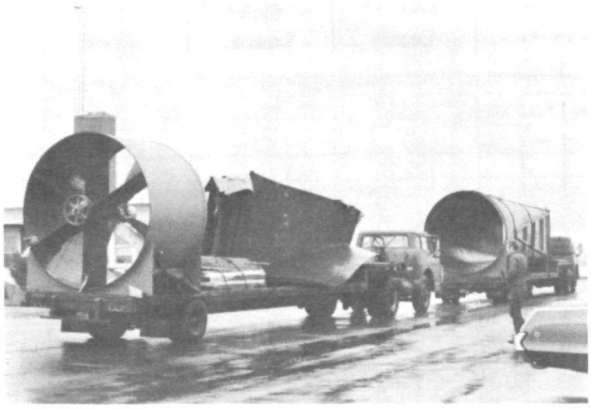
Test and Evaluation Laboratory Adding Low Speed Wind Tunnel



The equipment on the trucks above is part of a 96-foot long, low speed wind tunnel to be installed at the National Weather Service Systems Development Office's Test and Evaluation Laboratory at the Sterling Research and Development Center, Va.

The wind tunnel is an open loop tandem test section type. Its variable pitch constant speed propeller, which will be driven by a 125 hp motor, will provide velocities from 1 mph to 50 mph in a six-foot square test section, and over 100 mph in a four-foot square test section. Contraction ratios of 7 and 16 to 1 for the two test sections, plus three screens, should provide low turbulence; however, this will be determined during the forthcoming acceptance tests. Velocity expansion can be easily accommodated in the future by either increasing the drive power or using fillers in the existing test sections.

As part of its program to establish full capability of environmental testing at the Sterling facility, the T&EL plans to use the tunnel in development testing of new meteorological sensors and in determining the effectiveness of others. For example, tests of the new wind sensor for the Remote Automatic Meteorological Observing System (RAMOS) will be followed by a study of the air flow over and around existing rain gages to determine if the wind shields do indeed increase the amount of precipitation caught by the gages. This investigation will employ a unique feature of this tunnel--a smoke generator which will be used in photographing the air stream.

According to William E. Eggert, Director of the Test and Evaluation Laboratory, because of space problems, the tunnel will be installed in what formerly was the T&EL's warehouse, and is expected to be in operation next month.

NOTES ABOUT PEOPLE (*Continued from page 6*)

Carmen Johnson, of the National Oceanographic Data Center's Search and Acquisition Branch, EDS, recently participated in meetings of the Environmental Quality Board in Puerto Rico. Mrs. Johnson described NODC programs, advised on the establishment of a Puerto Rican marine data center, and initiated a program for data exchange.

Gordon C. Shields, marine meteorologist at the Weather Service Forecast Office in Los Angeles, Calif., retired January 8 after 31 years' service. Mr. Shields was a weather officer in the Air Force during World War II and worked for Pan American Airlines as a forecaster prior to joining the NWS in 1947. He has served at Weather Service Forecast Offices in Honolulu and Los Angeles, and was assigned to the Marine Program in 1966. He lives at 309 Via El Chico, Redondo Beach, Calif. 90277.

Victor K. Davis, marine supervisor, Pacific Weather Project, Seattle, Wash., is retiring today after 29 years' service. He has been in the PWP Unit in Seattle since 1947, after serving a year as Hydro-Climatic Inspector out of the Seattle office. During World War II, Mr. Davis served as an Air Force weather forecaster at various bases, including a two-year assignment at Walla Walla, Wash.

Mabel M. Booth, meteorological technician in the Upper Air Section of the Data Verification Branch, National Climatic Center, EDS, has retired after 31 years of Federal service. A native of Ohio, Mrs. Booth worked at New Philadelphia and Cincinnati, Ohio; Chicago, Ill., and Chattanooga, Tenn., before going to the NCC in 1951.

Employee Leave Record-1972

Name _____ Hours Annual Leave earned each pay period ____

Vacation Dates _____

Pay Period	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Annual Leave Earned	Annual Leave Used	Annual Leave Balance	Sick Leave Earned	Sick Leave Used	Sick Leave Balance	Other Leave Earned	Other Leave Used	Other Leave Balance
															Leave Balance Jan. 8, 1971			Leave Balance Jan. 8, 1971			Leave Balance Jan. 8, 1971		
Jan 9 - Jan 22		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			0			0				
Jan 23 - Feb 5		✓	✓	✓	✓	✓										0							
Feb 6 - Feb 19																							
Feb 20 - Mar 4		Hol																					
Mar 5 - Mar 18																							
Mar 19 - Apr 1																							
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Oct 29 - Nov 11																							
Nov 12 - Nov 25												Hol											
Nov 26 - Dec 9																							
Dec 10 - Dec 23																							
Dec 24 - Jan 6		Hol							Hol														
Totals for end of year																							

Chart Courtesy of the Census Enumerator

How To Use This Chart:

During each pay period mark the number of hours used with a symbol for the type of leave as follows:

A - Annual LWOP - Leave Without Pay
S - Sick C - Compensatory

Example:
8 hours of annual leave taken on January 21 would be entered as "8A" in the space for that day; 8 hours of sick leave would be "8S."(Use of different colored pencils for the different types of leave would help.)

At the end of each pay period, under the columns headed "Annual Leave," "Sick Leave," and "Other Leave" enter the number of hours of leave earned and the total numbers of hours used during that pay period. Then add "leave earned" to balance entry from the previous pay period and subtract "leave used." Enter the difference in the "balance" column.

About Your Annual Leave:

- If you have less than three years' service, you earn 4 hours of annual leave per pay period.
- If you have three years, but less than 15 years' service, you earn 6 hours of annual leave per pay period--plus four additional hours which will be credited for the last complete pay period in the calendar year.
- If you have 15 or more years' service, you earn 8 hours of annual leave per pay period.
- The maximum amount of annual leave which employees working in the United States may normally accumulate is 30 days.
- Your annual leave "ceiling" for 1972 is 30 days or the amount you had to your credit at the beginning of the 1972 leave year, whichever is greater.

About Your Sick Leave:

- You earn 4 hours of sick leave per pay period regardless of your length of service.
- There is no limit on the number of hours of sick leave you may accumulate.

Items to be considered for publication in NOAA WEEK should be submitted to: Office of Public Affairs, NOAA, Room 221, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

National Oceanic and Atmospheric Administration

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