



noaa week

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Dr. Epstein Is Appointed NOAA Associate Administrator

ITOS-E Satellite Fails To Attain Orbit

The ITOS-E satellite was lost after launch July 16, when the second stage of the Delta launch vehicle failed to reach the velocity required to attain orbit. The spacecraft, which would have become NOAA-3 if it had successfully entered orbit, was being

launched to continue the operational environmental satellite system managed and operated by NOAA's National Environmental Satellite Service. The NOAA-2 satellite, launched last October, is operating satisfactorily.

Dr. Edward S. Epstein has been appointed NOAA's Associate Administrator for Environmental Monitoring and Prediction. A teacher, researcher and administrator, he has been Chairman of the Department of Atmospheric and Oceanic Science at the University of Michigan since 1971, and is internationally known in his field.

He succeeds Dr. Richard W. Hallgren, who has become Deputy Director of the National Weather Service.

In announcing Dr. Epstein's appointment, Secretary of Commerce Frederick B. Dent said, "Dr. Epstein's record of achievement in several major areas of science and administration is an impressive one, and I am pleased indeed at his acceptance of this position, one of considerable importance to the Department's environmental programs."

Dr. Epstein's affiliation with the University of Michigan began in 1959; he served there as a lecturer and research associate, to 1961; as assistant professor from 1961 to 1963; associate professor from 1963 to 1968; and full professor since that time.

As head of the Department of Atmospheric and Oceanic Science he broadened its scope

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Weather Modification Activities For Three Years Are Summarized

"If man can modify the weather, perhaps by only a small amount at selected places and times, he can reduce the severe stress that he must endure as a result of hazardous weather or insufficient water," according to NOAA's newly published summary report on "Weather Modification, Fiscal Years 1969, 1970, and 1971."

The report summarizes important developments during three of the five years since fiscal year 1968, when legislation assigning weather modification reporting responsibilities to the National Science Foundation expired. NOAA is continuing the series of summary reports at the request of the Interdepartmental Committee for Atmospheric Sciences. A report covering weather modification activities during fiscal year 1972 is in preparation, and summaries for subsequent years will be issued annually.

The illustrated report, prepared under contract by GEOMET, Inc., describes activities in the United States and abroad relating to modification of rainfall, snowfall, hurricanes, tornadoes, hail, and fog, as well as inadvertent weather modification. For the most part, the programs reported were conducted or sponsored by the U.S. government, with expenditures for weather modification efforts totalling about \$12.5 million in 1969, \$12.9 million in 1970, and just under \$15 million in 1971.

Studies of economic, ecological, legal, and social aspects of weather modification are included in the report.

Economic effects, the publication notes, "are not likely to be distributed uniformly

(Continued on page 7)



Dr. Edward S. Epstein

Yates M. Barber Named To Head NMFS Water Resources Division

Yates M. Barber, Jr., has been appointed Chief of the National Marine Fisheries Service's Division of Water Resources Management. He was formerly senior staff scientist in the Office of Environmental Quality of the Bureau of Sport Fisheries and Wildlife in the Department of the Interior. Earlier, he was a staff assistant to the Assistant Director for Research in the Bureau of Sport Fisheries and Wildlife.

According to Robert W. Schoning, Director of the NMFS, Mr. Barber "brings expertise to this position acquired over many years of outstanding work in solving environmental problems such as thermal pollution, underground nuclear testing, oil pollution, the proposed Alaska pipeline, water quality standards, and preparation and review of Environmental Impact Statements."

Mr. Barber entered the Federal service in 1956 after working for the North Carolina Wildlife Resources Commission for six years.

He received his B.S. and M.S. degrees in Wildlife Conservation and Management from North Carolina State College.

He served in the U.S. Army during World War II.

Barbara McKain Is First Female Lead Forecaster

Barbara McKain, who was promoted to "Lead Forecaster" at the Cheyenne, Wyo., National Weather Service Office when the office was expanded to a state forecast office, is the first woman ever named "Lead Forecaster" in the U. S.

She acquired a professional meteorologist rating in 1964, after attending Kearney State College in Nebraska, and St. Thomas University in Houston, Tex.; and earning additional credits from Pennsylvania State College and Oregon State University. In 1967 she was named Meteorologist in Charge at Norfolk, Nebr., and in 1969 she received a Commerce Department Silver Medal for her work in Northeast Nebraska during winter storms of 1968-69 and the subsequent spring snowmelt situation.

Ground Elevations in Chicago Being Measured

Federal surveyors are measuring ground elevations in Chicago, Ill., as part of an updating of a national network being conducted by the National Geodetic Survey.

A 16-man field party headed by Robert R. Gerrish will complete in downtown Chicago one leg of the network -- an 80-mile stretch from Racine, Wis., to the Washington Square section of Chicago -- on which work has been underway since June 12. The one-week survey is expected to be completed about July 20.

The current program to update the national network began along the Atlantic coast in 1964.

NOAA Team Studies Methods To Help Avert Fuel Shortage

A special team of NOAA scientists is preparing a study for the Executive Office of the President designed to help avert a heating fuel shortage in the U.S. next winter. Dr. J. Murray Mitchell, Jr., of the Environmental Data Service's Office of Special Projects; Dr. Donald L. Gilman, of the National Weather Service Extended Forecast Unit; Dr. Richard Felch, NWS Special Weather Services Branch; Dr. Ralph Rotty, Senior Research Associate with the Environmental Research Laboratories' Air Resources Laboratories; and a team headed by Frank Quinlan at the EDS National Climatic Center are engaged in various aspects of the study.

Nationwide data on heating degree days for each heating season since 1931 are to be combined with information on national consumption of various categories of heavy fuels to arrive at a probability distribution of the national total heating fuel demand next winter, based on weather experience over the past 42 heating seasons. The results of the study will be used by the White House to determine what heating fuel stocks will be needed, going into the 1973-74 winter season.

Congressional Action May Lengthen Program On Lakes, Seaway Navigation Season Extension

At a July 11-12 meeting in Fort Sheridan, Ill., it was announced that congressional action is under way to add at least two more years to the Demonstration Program to Extend the Navigation Season on the Great Lakes and St. Lawrence Seaway. The two-year extension would carry the Program through June 30, 1976.

Attending the meeting were representatives of the Great Lakes Winter Navigation Board--the policy-making group for the Program. NOAA was represented by Rear Admiral Harley D. Nygren, NOAA's Board Member, accompanied by Dr. Frank Quinn, of the Lake Survey Center, and Max Mull, of the National Weather Service.

It has been demonstrated that--through use of bubbler systems, ice booms, specialized navigation systems, and improved ice and weather forecasts--the navigation season can indeed be extended in the upper lakes. Economic and ecological results of a longer navigation season are being investigated. During the remainder of the Program, increased emphasis will be placed on problems of winter navigation on the St. Lawrence Seaway.

EDS Orients CU Library Science Class

The Environmental Data Service presented a NOAA orientation program on environmental data services and information available through EDS elements to 36 students from the graduate department of Library Science of Catholic University of America in a two-day session held July 10-11. The program was part of a two-week institute on Federal Library resources, services, programs, networks and data banks.

Parker Now Nashville MIC; Carpenter Is MIC at Brownsville

Cecil M. Palmer is the new Meteorologist in Charge of the National Weather Service Office at Nashville, Tenn., succeeding Harold J. Smith, who has retired. Mr. Palmer will also serve as the State Users' Services Representative and State Aviation Liaison Official.

He has been MIC at Brownsville, Tex., since 1971, and he was also MIC at Baton Rouge, La., in 1966 and 1967. He entered the NWS at Asheville, N.C., in 1947 following service in the U.S. Navy. His other NWS posts included Wilmington, N.C.; Memphis, Tenn.; and four years in the Weather Service Southern Regional Headquarters at Fort Worth, Tex.

He earned his Masters Degree in Public Administration at Texas Christian University, and received his Bachelor of Science Degree at Memphis State University.



Mr. Palmer



Mr. Carpenter

Charles H. Carpenter has been selected to succeed Mr. Palmer as MIC at Brownsville, which serves the Lower Rio Grande Valley. Mr. Carpenter was last assigned to the NWS Southern Regional Headquarters.

He is a former member of the Brownsville weather staff, having served there from 1961 to 1966, first as Agricultural Weather Service Specialist and later as Principal Assistant. He entered the NWS at Port Arthur, Tex., in 1946, after four years as a forecaster in the U.S. Air Force, and from 1966 to 1968 he was MIC at Macon, Ga.

His meteorological education includes specialized training in agricultural meteorology at Iowa State University.

Field Party Surveying Missoula, Mont., Airport

A National Ocean Survey airport survey party, headed by Lieutenant Donald L. Suloff, is scheduled to begin soon a field survey of Johnson-Bell Field, Missoula, Mont., as part of a joint program with the Federal Aviation Administration to advance air safety.

Results of the two-week survey, in conjunction with aerial photographs taken previously by the NOS, will appear on an Airport Obstruction Chart to be published in five or six months. These charts are used by the FAA in planning operational procedures for the arrival and departure of aircraft.

U.S., Soviet, Mexican Ships To Meet Next Month for GATE Sea Trials

The NOAA Ship Researcher, the Soviet Union's Academician Korolov and Ernest Krenkel, and Mexico's Cadete Virgilio Uribe have an August 1 rendezvous at 20° North latitude, 60° West longitude. At that point in the Atlantic, about 185 miles east-northeast of San Juan, Puerto Rico, they will stage a ten-day rehearsal of the complex GATE project to be conducted in 1974.

NOAA is coordinating U.S. participation in the GARP Atlantic Tropical Experiment--the first major international experiment in the Global Atmospheric Research Program of the World Meteorological Organization and the International Council of Scientific Unions.

Scientific resources--including ships, aircraft, satellites, and buoys--of many countries will be used to gather data over the equatorial Atlantic and adjacent land areas, for a study of the behavior of cloud clusters and their role in the larger circulation of the atmosphere. Increased knowledge of the tropical atmosphere is needed in order to develop a global observing system and forecast models for accurate prediction of weather a week or more in advance. The experiment is also expected to advance understanding and prediction of tropical weather, storms, and hurricanes.

To provide an accurate picture of weather and ocean processes, the observations gathered by instruments of participating nations must be compatible. But, because of different sensor design, installation, exposure, and observing techniques, the instrument readings differ. The GATE International Sea Trials, to be held from August 1-10 this year, will compare meteorological and oceanographic measurements made by U.S., Soviet, and Mexican instrument systems. When the measurement differences are known, the instruments can be adjusted or the data obtained can be corrected in part.

The sea trials also will provide an opportunity for checking operational and data management procedures to be used during the 1974 experiment, and for training personnel.

Dr. Yuri Tarbeev of the U.S.S.R., Deputy Director of the GATE International Scientific and Management Group, has been designated International Coordinator for the sea trials, and will be aboard the Researcher.

Dr. Verner Suomi of the University of Wisconsin and Feodor Ostapoff, Director of the Sea-Air Interaction Laboratory of the Environmental Research Laboratories' Atlantic Oceanographic and Meteorological Laboratories in Miami, Fla., will work on the Korolov during the sea trials. The boundary layer instrumentation system to be used by U.S. vessels during the GATE project was developed under Dr. Suomi's direction, and he will be conducting the comparison between the U.S. and Soviet boundary layer instruments.

Dr. James Sparkman of NOAA's GATE Project Office will be U.S. coordinator on the Researcher, which is commanded by Captain Lavon L. Posey.

Donald H. Pack Named Coordinator Of All ERL Antarctic Activities

Donald H. Pack, Deputy Director of the Environmental Research Laboratories' Air Resources Laboratory, has been appointed program coordinator of all ERL Antarctic activities. He is replacing John Wood, who will leave ERL under Phase II of the Earth Sciences Activities transfer to the U.S. Geological Survey.



Mr. Pack

A Research Meteorologist, Mr. Pack has been director of ARL's Geophysical Monitoring for Climatic Change Program since 1972. He began his career as a weather observer for the National Weather Service in 1940. He has been with the Commerce Department since that time except for a four-year period with the U.S. Army Air Force during World War II. In 1959, he became Chief of the National Weather Service Environmental Research Branch and assumed his present duties with what is now NOAA in 1964. He received a Commerce Department Meritorious Service Award in 1961, and a NOAA Special Achievement Award in 1971.

Mr. Pack has authored more than 35 scientific publications in the areas of global trace element monitoring, planetary boundary layer turbulence, and air pollution meteorology.

Quiet Solar-Terrestrial Period Study Available

The first detailed case study of a relatively quiet solar-terrestrial period has been compiled by Helen E. Coffey and J. Virginia Lincoln of the Environmental Data Service's World Data Center A for Solar-Terrestrial Physics, located at Boulder, Colo. The report, entitled "Data Compilation for the Magnetospherically Quiet Periods, February 19-23 and November 29 to December 3, 1970," represents a new effort on the part of some scientific leaders to stimulate interest in case study work. In this case, the earth's outer atmosphere was undisturbed in the face of some solar activity and the variable solar wind.

To date, these studies have not been popular with the scientific community, which often tends to concentrate its efforts on exceptional phenomena or flare-associated events in order to unravel the physical mechanisms operating in the sun's atmosphere, the interplanetary medium or the earth's atmosphere.

Some scientists believe that studies of small disturbances during generally quiet conditions can make a complementary contribution.

Other data reports on such quiet periods will follow depending on the interest that this report produces in the scientific community.

Buford K. Meade Is Honored By Emory and Henry College

Buford K. Meade, Chief of the National Ocean Survey's Horizontal Network Division, was named "Distinguished Alumnus of the Year" by the Alumni Association of Emory and Henry College, in Emory, Va. Mr. Meade received his degree in mathematics from the institution in 1930, and that year joined the Coast and Geodetic Survey, predecessor of the NOS.



He has written more than 30 papers dealing with earth surveys in Europe and North America, with emphasis on the effects of earth movements along the San Andreas fault. He has participated in 12 international meetings in eight countries, and served as a delegate of the National Academy of Sciences to the Moscow conference in 1971. He received a Commerce Department Silver Medal in 1953.

He has been an officer of the American Geophysical Union for 14 years, and is a member of the Washington Academy of Sciences, the Society of American Military Engineers, and the American Congress on Surveying and Mapping.

Installation of NOS Five-Color Press Complete

The employees of the Presswork Branch in the Reproduction Division of the National Ocean Survey's Office of Aeronautical Charting and Cartography recently celebrated the final acceptance of the new five-color press, which has made their Branch the showplace of the Division. Initial planning for the press began in July 1971, and two years of extensive effort have culminated in the installation of the most modern press available on today's market.



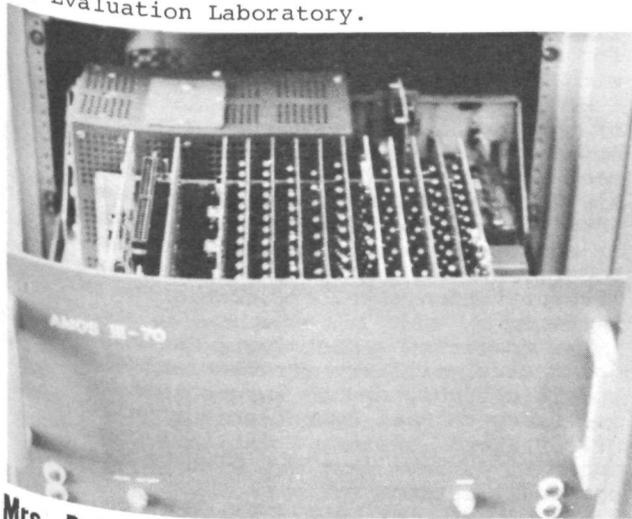
(From left) With the new press are members of one of the three shift crews: Welford E. Lee, James M. Mosedale, Benjamin E. Brizzi, Joe E. Jackson and James E. Cole, Jr.

Automatic Meteorological Observing System Proves Reliable in Tests

The basic processing unit of an Automatic Meteorological Observing System (AMOS) Model III-70 developed by the National Weather Service Systems Development Office has passed the 40,000-hour mark with only three failures. This demonstrates, according to SDO's Test and Evaluation Laboratory, that the design goal of 5,000 hours mean time between failures has been met with better than 95 percent confidence.

The unit, designed and built by SDO's Equipment Development Laboratory, has been operated continuously by the Test and Evaluation Laboratory using simulated input. The reliability figure refers only to the processor and not to the sensors or teletype-writer parts of the system.

The four-and-a-half-year test was run by Robert C. Strickler, Chief of the Engineering Experiment and Test Branch of the Test and Evaluation Laboratory.



Mrs. Betty L. Kitts Dies

Mrs. Betty L. Kitts, former Secretary at the National Weather Service Forecast Office in Cleveland, Ohio, died on July 6. She had recently retired after 18 years' service. She is survived by a daughter, Louise, of 14580 Lorain Ave., Cleveland, Ohio 44111, and two sons, James and Richard.

Alfred B. Kline Dies

Alfred B. Kline, Weather Service Specialist at the National Weather Service Office in Williamsport, Pa., died on July 13. He had completed 44 years of Federal service. He is survived by his wife, Elizabeth, of 1004 Tule St., Montoursville, Pa. 17754, and two sons, A. Burton, Jr., of Rockville, Md., and William L., of Tempe, Ariz.

Captain William M. Scaife Dies

Captain William M. Scaife, who retired in 1952 after 33 years with the Coast and Geodetic Survey (predecessor of the National Ocean Survey) died on July 10 in Fredericksburg, Va. He is survived by his wife, Mildred, of Clemson, S.C.; a son, William, of Fredericksburg; and a daughter, Mrs. Mildred Casey, of Toronto, Canada.

"Negative Feedback" in Rainstorms In Tropics Discovered by Scientists

Scientists from the Environmental Research Laboratories and the Soviet Union have made unique oceanographic measurements which show that rainstorms in the tropics sometimes put a damper on their own activity.

Two NOAA scientists and a meteorologist from the U.S.S.R. Hydrometeorological Service reported recently that measurements they made last July from a Soviet research ship, the R.V. Professor Zubov, show that the rainstorms cool the upper level of the ocean sufficiently to inhibit the upward convection of warm, moist air which causes the storms in the first place. (In meteorology, convection means vertical motion.)

"The most significant result of the study," says Feodor Ostapoff, Director of the Atlantic Oceanographic and Meteorological Laboratories' Sea-Air Interaction Laboratory in Miami, Fla., "is our discovery that the ocean responds to tropical rainstorms so as to set up a negative feedback loop which reduces the atmospheric convection that caused the storm."

"Essentially what happens," says Dr. Ostapoff, "is that rainfall, plus accompanying downward convection of air, results in a stratification of the water in the first 10 meters of the ocean (a meter is about 39 inches) and cooling of this layer. Cooling of the ocean surface, in turn, results in a suppression of the upward convection of warm, moist air which had caused the storm."

A second major finding was that oceanographic measurements--of temperature, salinity, and density--allow inferences to be made about meteorological events and that these inferences provide more reliable data than conventional shipboard meteorological observations.

The experiment was carried out in the Atlantic Ocean about 800 miles west of Africa and five degrees north of the Equator along the southern edge of the Intertropical Convergence Zone, a region where there is a great deal of atmospheric convection due to the convergence of Northern and Southern Hemisphere trade winds. This convection results in frequent storms and heavy rainfall, and the experiment was conducted during an 18-hour period of rainfall.

Other scientists involved were Sylvia Worthem of the Sea-Air Interaction Laboratory and Dr. Yuri Tarbeev of the U.S.S.R., now working with the World Meteorological Organization on the GATE project.

MESA Mobile Laboratory To Be Displayed

The MESA Mobile Calibration Laboratory will be on display between Buildings 1 and 2 at the Washington Science Center in Rockville, Md., on July 24. The Laboratory was engineered by the National Oceanographic Instrumentation Center to be used by NOAA's Marine Eco-Systems Analysis program in its study of the New York Bight.

George H. Rees Is Appointed U.S. Fisheries Attache to Mexico

George H. Rees, a career employee of the National Marine Fisheries Service has been appointed U.S. Regional Fisheries Attache to Mexico. He replaces George Gross, who held the position from 1968 until recently.



Mr. Rees

Fisheries attache assignments in foreign countries are filled by NMFS employees assigned to the Department of State as Foreign Service Reserve Officers. Upon completion of assignments, the attaches are re-assigned to duty with NMFS.

Until recently, Mr. Rees was a staff assistant with the NMFS Technical Advisory staff in Washington, D.C., and previously he was fishery advisor to the U.S. AID Mission to Brazil stationed in Recife from 1968 to 1971. Earlier in his career, as Chief of the NMFS Branch of Technical Assistance, he gained extensive experience in the study of fishery problems of developing countries.

Mr. Rees received his Bachelor of Science degree at William and Mary, and his Master's degree in marine biology from Duke University.

Dr. Epstein Is Appointed (Continued from page 1)
to include studies of aeronomy and planetary atmospheres. He is a member of the College Standing Committee, and the University Research Policies Committee.

From 1962 to 1964, he served as consultant to the Assistant Secretary of Commerce for Science and Technology; and from 1968 to 1969 as visiting scientist at the Meteorology Institute, University of Stockholm.

From 1953 to 1957, he served as an Air Force officer, performing research. In 1954 he received a Master of Science degree from Pennsylvania State University, and in 1960 received his Ph.D. from that institution.

He was born in New York City, was graduated from Bronx High School of Science in 1947, Harvard College in 1951, and received an M.B.A. degree from Columbia University Graduate School of Business Administration in 1953. During this period he participated in Columbia's Conservation of Human Resources Project.

A certified consulting meteorologist, Dr. Epstein is a Fellow of the American Meteorological Society, the Editor of the Journal of Applied Meteorology, a trustee of the University Corporation for Atmospheric Research and Chairman, budget and program committee, of the National Center for Atmospheric Research; panel member on committees of the National Science Foundation and the National Academy of Sciences-National Academy of Engineering; and a member of the American Geophysical Union, the American Statistical Association and the Royal Meteorological Society.

notes about people

At its recent annual installation meeting, The Federal Executive Association of the Texas Coastal Bend installed Glenn H. Trapp as President of the organization for the 1973-1974 period. Mr. Trapp has been Meteorologist in Charge at the Weather Service Office Corpus Christi since June of 1972. The Texas Coastal Bend FEA is composed of about 120 Federal Supervisors in Corpus Christi and surrounding cities. Mr. Trapp is the second weatherman to serve as president of the organization, as Russell Mozeney, retired MIC of WSO Corpus Christi, previously served in that capacity.

Margaret M. Bivans, a library technician at the Environmental Research Laboratories Library in Boulder, Colo., has received a Master of Arts degree in librarianship from the University of Denver while working substantially full time at the library. A Federal government employee for a total of 31 years, she has been with NOAA and its predecessors since 1965.

Frederick O. Diercks, Associate Director of the National Ocean Survey's Office of Aeronautical Charting & Cartography, has been elected Chairman of the Inter-Agency Air Cartographic Committee for a two-year term ending June 30, 1975. The committee is composed of representatives of the Departments of Commerce, Defense, and Transportation. Mr. Diercks is the DOC member.

The committee's task is to develop joint civil-military aeronautical chart specifications, and to insure that charts necessary to meet operational requirements of civil and military aviation are produced at minimum cost and with no unnecessary duplication.

Rue E. Rush, Meteorologist in Charge of the Weather Service Forecast Office in Raleigh, N.C., discussed tornadoes on the North Carolina Educational Television Network program "North Carolina Week". Particular emphasis was placed on reasons for the excessive number of tornadoes in North Carolina in the spring months of 1973.

LSC Installs Towers in Straits of Mackinac

Lieutenant (junior grade) Charles L. Kureth, Jr., Ronald Dana, Richard Gutleber and Joseph Cada of the Lake Survey Center have completed installation of two research towers, one each on the north and south ends of the Straits of Mackinac, to be used in connection with water motion and Environmental Protection Agency studies. Concrete anchors were made and placed on the lake bottom with the assistance of the U.S. Coast Guard Cutter Sundew, then both towers were erected and guyed in place. Cable was laid to the southern tower, and it has been instrumented with two Marine Advisers Q-9 water current meters, a weather wind system, and a Leupold-Stevens digital water temperature recorder.

Weather Service Support Ends At NASA Mississippi Test Facility

The pending transfers of Official in Charge John Rhyne to Lake Charles, La., and Electronics Technician Harry Ulmer to the Weather Service Support Facility at the National Aeronautics and Space Administration Wallops Station, Va., mark the end of the Weather Service support to the NASA Mississippi Test Facility at Bay St. Louis.

The project began in 1962 when the Weather Service team was among the first to be assigned to the MTF site. The main reason for the Weather Service there was to support the ground testing of Saturn rocket engines for the Apollo program. Of particular concern was the propagation of sound from the tests. At one time ten NWS men were assigned to the station. Since the engine testing ended, the remaining two-man team has been providing miscellaneous weather services to NASA and the other agencies at MTF, some of which are NOAA components.

New National Ocean Survey Publication Provides Distances Between 700 U. S. Ports

A new edition of the National Ocean Survey publication "Distances Between United States Ports" tells the nautical distances between 700 U.S. ports, and much more. It includes a table which enables you to estimate the time it takes to travel so many nautical miles at varying speeds, such as a 7,321-mile trip would take 38 days and 2 hours at 8 knots, but only 15 days and 6 hours at 20 knots. For landlubbers, there's another table which converts nautical into statute miles.

It also includes distances for the Great Lakes, compiled by the NOS' Lake Survey Center, and for the Mississippi River system, compiled from Army Corps of Engineers data. A chart showing junction points and references to the tables is also provided to facilitate use of the publication.

Changes from previous editions are the recomputation of distances between ports on the Atlantic and Pacific coasts in accord with established Traffic Separation Schemes, and between ports on the Gulf of Mexico in accord with established shipping safety fairways. Worldwide distances between ports can be estimated by using the publication in conjunction with H.O. Publication 151, a Defense Mapping Agency Hydrographic Center publication of foreign port distances.

The publication may be purchased for 60 cents from the NOS (C44), Riverdale, Md. 20840, or from its sales agents at most U.S. seaports.

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Conceptual Model of Ecosystem Of New York Bight To Be Developed

Water Resources Engineers of Walnut Creek, Calif., will develop for NOAA a conceptual model of the New York Bight ecosystem.

The model will display through a series of graphs with accompanying narrative, the major subsystems and forces that influence the ecology of the Bight. It will be used both to help scientists assess and predict the impact of man's activities on the Bight, and to aid in the design and development of NOAA's New York Bight ecosystem project.

The New York Bight--that portion of coastal waters and continental shelf from Montauk Point, Long Island, to Cape May, New Jersey--is the subject of a five-year regional ecology study undertaken by NOAA's Marine Eco-Systems Analysis (MESA) program. The conceptual model will be a key element in the study, enabling NOAA to identify the chief information gaps in present knowledge about the Bight as well as helping improve the predictive capability of scientists and planners with interests in the area.

Water Resources Engineers will provide a conceptual model in three formats-- a graphical representation similar to a series of flow charts, a narrative cross-referenced with the graphics, and specifications for an automatic data-processing information system keyed to the first two formats. The model will identify, detail, assess and, where possible, quantify the natural and manmade environmental and related processes of the Bight ecosystem. Among these will be significant external forces acting on the Bight ecosystem, such as the atmosphere, pollution, construction of off-shore facilities, and dumping activities; and driving variables of the ecosystem, such as winds and tidal currents.

Completion of the final phase of the conceptual model is scheduled for Aug. 15, 1974.

Weather Modification Report (Continued from page 1)

over our society. Some groups may have considerable gains, while other groups may incur losses as a result of weather modification activities. For example, for farmers of certain crops, it may be quite profitable to use cloud seeding procedures to increase the supply of water for irrigation. At the same time, this increased rainfall may adversely affect the construction industry. Obviously, the decision to seed or not to seed must consider the net economic gains expected from the proposed operation. Economic studies have been initiated to identify the weather sensitive parts of our economy and develop quantitative methods for predicting losses and gains associated with changes in the weather."

The publication "Summary Report, Weather Modification, Fiscal Years, 1969, 1970, and 1971" is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for \$1.25.

recipe of the week



CREAMY SHRIMP WITH SPAGHETTI

3 cans (4-1/2 to 5 ounces each) shrimp
or
1-1/2 pounds raw shrimp, cooked, peeled,
and deveined
1/4 cup butter or margarine
3 tablespoons flour
1/2 teaspoon salt
2 cups milk
1 can (3 ounces) sliced mushrooms, un-
drained
1/3 cup sliced ripe or stuffed olives
1 tablespoon lemon juice
1/2 to 3/4 teaspoon dill weed
4 to 6 servings hot, cooked, seasoned
spaghetti
2 tablespoons chopped parsley
Shredded Parmesan cheese (optional)

Drain and rinse canned shrimp. Melt butter or margarine; blend in flour and salt. Add milk; cook, stirring constantly, until thickened. Add undrained mushrooms, olives, lemon juice, dill weed, and shrimp; stir carefully. Heat well. Serve over spaghetti and sprinkle with parsley and Parmesan cheese, if desired. Makes 4 to 6 servings.

Correction

The caption under the photo of the National Ocean Survey EEO Committee on page 5 of NOAA WEEK, Volume 4, No. 29, dated July 13, 1973, omitted the names of three members of the Committee shown in the photo.

Standing in the photo, from left, are Lieutenant (junior grade) Steven Hollinshead-Vice Chairperson, Robert Alsop, Ralph Nelson, J.D. D'Onofrio, Mykola Stawnychy, James C. Williams, Ervin Lange, Mary Sugrue, and Raynard Cardascia.

44th Officer Training Class Recovers Crewless Sailboat

The NOAA 44th Officer Training Class recently earned the gratitude of the owners of a sailboat which collided with a tug and towed barge in fog, and was swept up under the bow of the barge.

Mr. and Mrs. John U. White, of Darien, Conn., had abandoned their boat for the safety of the barge, and later watched as their *Witchcraft* freed herself from the barge and disappeared into the fog.

Aboard the *Kings Pointer*, returning from a training cruise which had included a stop at the National Marine Fisheries Service Laboratories in Woods Hole, Mass., the class, in transit from Vineyard Sound to Block Island, sighted a sailboat with only a jib up. Two hours later, when news of the *Witchcraft's* collision was heard over the marine radio, the *Kings Pointer* turned around to search for the previously sighted sailboat. When she



(From left) Ens. Winter, Ens. Nelson, and Lieutenant (j.g.) Meyers aboard the *Witchcraft*.

ton Reef Light, where she was turned over to a Coast Guard Cutter.

New Program Speeds Earthquake Data Retrieval

The Environmental Data Service's National Geophysical and Solar-Terrestrial Data Center has developed a new earthquake data retrieval computer program that will permit retrieving up to 100 different sets of conditions in a single pass. A separate printout, punched card, or tape file is produced for each of the 100 sets of conditions. The new program now enables the Center to process up to 100 different requests or combinations of parameters from users in a single pass through the file. Any combination of 16 different parameters may be tested for each condition or customer. Only those records that meet the specifications are included in the output to the user.

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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