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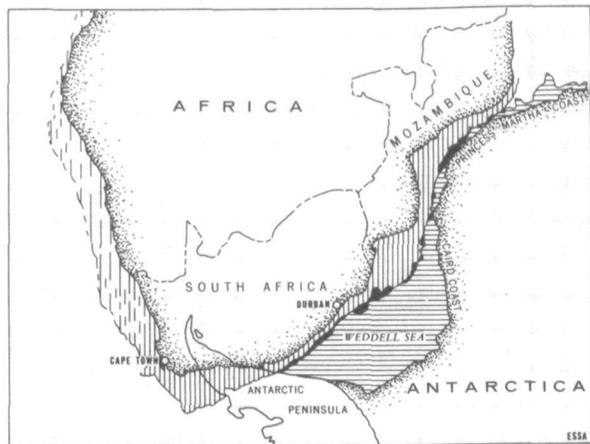
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Scientists Shed Light on Continental Drift Theory; Antarctica Once Joined to Africa, Computer Shows

Dr. Robert S. Dietz and Walter Sproll, Atlantic Oceanographic and Meteorological Laboratories' geological oceanographers, have established, with the aid of a computer, that Antarctica was once attached to the southeast coast of Africa. The continents now are separated by 2000 miles of water.

Dr. Dietz and Mr. Sproll are supporters of the continental drift theory which postulates that the continents are drifting at rates of about an inch or so per year in the earth's mantle. Approximately 200 million years ago, they estimate, there existed only a single universal land mass called Pangaea, 80 million square miles in area. Then, for reasons that are still unclear, Pangaea commenced to rift apart like an ice floe breaking up, with the fragments--our present continents--being dispersed to their present positions. Dr. Dietz believes that the pre-rift outlines of the continents are to be found halfway down the submerged isobath or depth line.

The scientists said they have established a new and "remarkably good" fit of the area where the two continents were once joined. Their computerized fit revealed that a 1200-nautical-mile-long, S-shaped portion of the Antarctic continental margin at the southern end of the Atlantic Ocean fitted a similar profile along southeastern Africa. According to this computerized juxtaposition of the two continents, Antarctica's Princess Martha Coast was connected, in part, to what is now Portuguese Mozambique, while the Weddell Sea Margin joined Africa in the Indian Ocean sector of

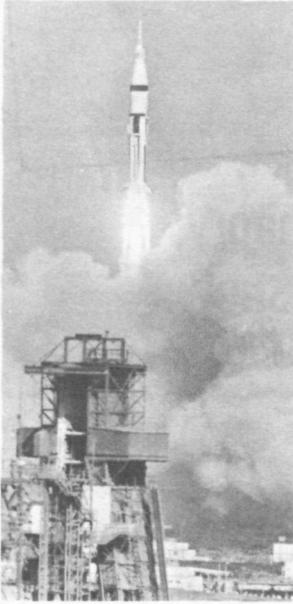


South Africa where the city of Durban is now located. They emphasized that some misfit will always remain, due to geological changes since the ancient supercontinent broke apart, and speculated that the erosion of rocks and changes in the sea bottom over the past 200 million years accounted for much of the misfit.

The ESSA oceanographers said that the Antarctic Peninsula had posed a problem because it was difficult to fit into a reconstruction of the supercontinent. They maintained, however, that the peninsula did not exist when the supercontinent broke up, but was built up afterwards by mountain-making forces.

In the drawing above, vertical and horizontal lines represent the underwater continental shelves of Africa and Antarctica. The solid black area, equivalent in size to Denmark or Maryland, indicates locations where the computerized reconstruction could not provide a perfect fit.

Spaceflight Meteorology Group Prepares for Apollo 13 Launch



April weather conditions, based on climatological probabilities, are expected to be generally favorable for the launch and recovery of Apollo 13. The Weather Bureau's Spaceflight Meteorology Group, which provides the primary weather service for the National Aeronautics and Space Administration's Apollo program, will issue the first actual forecast for the April 11 launch on April 6. The weather

watch for Apollo 13 began Dec. 13, 1969, when the Saturn V vehicle was rolled out of the Vehicle Assembly Building and moved to the launch complex, and will continue until the astronauts have been safely recovered at the end of the mission. Thunderstorms with strong winds and lightning are the principal weather concern before and at the time of launch. Climatological records show less than a five percent chance of a thunderstorm at the Kennedy Space Center sometime during the critical eight hours before the scheduled 2:13 p.m. launch, April 11. The likelihood of a thunderstorm right at the launch time is only one percent.

Maryland Geodetic Survey Progresses

An 18-man Coast Survey field party, headed by John B. Jones, III, is conducting a six-month geodetic survey in Prince Georges County, Md. Steel towers, some 11 stories high, are being erected to determine the exact geographical position of sites in the county. The survey, part of a \$175,000 cooperative project with county and city governments for the Washington suburban area, is needed due to rapidly rising land values and commercial and governmental requirements for planning and construction.

Sundean To Direct National Tsunami Warning Center



Cdr. Ray M. Sundean, ESSA Commissioned Officer, has been appointed Director of the National Tsunami Warning Center in Honolulu. Cdr. Sundean joined the Coast Survey in 1958. During the past 11 years, he has served as an aide to the Coast Survey Director, with a photogrammetric mapping unit on the east coast, aboard the USC&GS Ships *PATHFINDER*, *HODGSON*, and *FAIRWEATHER*, as chief of the Pacific Tide Party in Honolulu, and with the Honolulu Observatory at Ewa Beach, Oahu.

Small-Craft Chart Coverage of Gulf And Atlantic Coasts Nears Completion

Coverage of the entire 2460-mile Intracoastal Waterway along the Atlantic and gulf coasts by Coast Survey nautical charts is nearing completion. The entire east coast from New Jersey to Florida is now covered by the small-craft charts especially designed for recreational boaters. Of the three gaps remaining in the coverage of the Gulf of Mexico portion of the Intracoastal Waterway to Brownsville, Tex., a new chart has been issued for the stretch between West Bay and Santa Rosa Sound on the Florida west coast. Only two areas are presently without small-craft coverage, and charts are now in preparation and will be issued within the next few years. One section is between Barataria, La., and Galveston, Tex. The other is from Aransas Bay to Brownsville.

Dr. Schmid Elected to Bavarian Academy

Dr. Hellmut H. Schmid, Director of the Coast Survey's Geodetic Research and Development Laboratory, was elected a member of the Bavarian Academy of Sciences at its plenary session, Feb. 13.

Flahive, Kline, and Johnson Awarded Commerce Bronze Medals



Left to right: Mrs. Kline; Alfred Kline; Samuel Smith, Chief, Administration; ERH; and MIC Jack Hummel, Williamsport, Pa.



Left to right: A.E.Tancreto, Eastern Region; A.C.Flahive, and MIC Oscar Tenenbaum, Boston.

Albert C. Flahive, guidance forecaster at the Weather Bureau Forecast Office, Boston, has received the Department of Commerce Bronze Medal "for exceptional achievement in the application of meteorological knowledge in the issuance of weather forecasts and warnings." Mr. Flahive is a veteran of more than 30 years' federal service. A. E. Tancreto, Eastern Region Special Assistant, representing the Director, Eastern Region, made the presentation at an awards ceremony, Feb. 26.

Alfred Kline, weather service specialist at the Williamsport, Pa., Weather Bureau Office, was awarded the Commerce Bronze Medal on Feb. 24 "in recognition of his many years of dedicated and effective service to the Weather Bureau and to the general public." Samuel Smith, Chief, Administration, Eastern Region headquarters, represented the Director, Eastern Region, at the presentation. Mr. Kline was honored last September for 40 years' federal service. Ernest C. Johnson, meteorologist in



Left to right: MIC E.C.Johnson and ERH Deputy Director, Charles G.Knudsen

charge at the Albany, N.Y., Weather Bureau Office, received the Commerce Bronze Medal on Feb. 25. The award, presented by Eastern Region Deputy Director Charles G. Knudsen, commended Mr. Johnson for his dedicated public service over a long period of years. Attending the ceremony were representatives of federal, state, and county agencies.

Dr. Stewart To Represent Florida In Coastal States Organization

Dr. Harris B. Stewart, Jr., Director of the Atlantic Oceanographic and Meteorological Laboratories, Miami, has been named Florida's representative to the newly formed Coastal States Organization by Florida Governor Claude Kirk. The group is concerned with matters requiring interstate cooperation and action in coastal and marine areas. Dr. Stewart is chairman of the Florida Commission on Marine Sciences and Technology.

ESSA Employees Association Holds Annual Elections

The ESSA Employees Association of the Washington, D.C., area is holding its annual elections for Council Delegates this month. Employees are urged to participate by running for office as well as by voting. ESSA encourages employee welfare and recreation associations, and its policy is that supervisors encourage club representatives to participate in meetings and projects on official time, whenever possible.

Second Forecasters Training Course Ends at WBH



Weather Bureau employees and their instructors participating in the second session of the Forecasters Training Course held at Weather Bureau headquarters, Feb. 10-26, were: Front row, left to right: John Mayer, New York City; Robert Ferry, Birmingham; Robert Van Haaren, NMC, Suitland; Phil Calabrese, WBH; Maurice Pautz, WBH; Joseph Lawrence, Medford; John Burke, Louisville. Second row, left to right: Arthur Walkowiak, Lubbock; William Rowe, Memphis; Fred Davis, Baltimore; Charles Chibka, Portland, Me.; Robert Fennell, Peoria; Richard Hutcheon, Anchorage. Standing, left to right: Robert Small, Spokane; Thomas Rule, Cheyenne; Eugene Thompson, Oklahoma City; Fred Maher, Indianapolis; Kenneth Campana, NMC, Suitland; Joseph Vederman, Honolulu; Robert Ingram, Phoenix; Herbert Groper, Trenton; James Vollkommer, Burlington, Vt.; Duane Cooley, WBH; Marvin Kelly, Anchorage; Robert Derouin, WBH; George Kalstrom, Los Angeles; Fred Ostby, WBH; Ronald Willis, Fairbanks; James Steiner, Fresno; Robert Richey, Little Rock. Not shown: Herman Stommel, Bismarck.

Kuberry Has Eventful Antarctic Trip

Richard W. Kuberry, Chief of the Fredericksburg Magnetic Center at Corbin, Va., has concluded an Antarctic trip to check Coast Survey instruments. While at the South Pole, the station was visited by Astronaut David R. Scott, who was investigating environmental, scientific, and psychological aspects of life in Antarctica to aid in the projected 643-day expedition to Mars in the 1980's. During Kuberry's stay, Max Conrad, a Minnesota pilot making a Pole-to-Pole flight, became the first to land a civilian plane at the South Pole, and also the first to land a plane without skis.

Four Fruit-Frost Observers Win Weather Bureau Awards

Special awards of appreciation were presented recently to cooperative observers in the fruit-frost program of the Sacramento and San Diego Districts. Special recognition was given to Colonel Norman Brown, H. W. Menth, and Wilson Wood of the Sacramento District, and to Leonard Richardson, Escondido, Calif., observer in the fruit-frost network since 1938.

Kenneth Golz, Chicago Met Tech, Dies

Kenneth W. Golz, meteorological technician at the Weather Bureau Forecast Office, Chicago, Ill., died Feb. 6.

Items to be considered for ESSA NEWS must be received by Monday for publication the following Friday. Send material to: Office of Public Information, ESSA, Room 804, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

National Oceanic and Atmospheric Administration

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