Indian Ocean Atlas Is Published

The **"Climatic Atlas of the Indian Ocean,"** by Stefan Hastenrath and Peter Lamb, has been published by the University of Wisconsin Press in two parts: "Surface Climate and Atmospheric Circulation" and "The Oceanic Heat Budget." They are part of a continuing series based on more than 4.5 million ship observations during 1911-70, compiled by one degree squares.

Part I contains maps by calendar month of 12 observed elements and derived quantities, in two sections: "Kinematics and Dynamics" and "Thermodynamics." The first section portrays sea level pressure, resultant wind (arrows and isotachs), directional steadiness of wind, divergence, relative vorticity, and cul of wind stress. Thermodynamics section presents sea surface temperature, sea-air temperature difference, specific humidity, total cloudiness, low clouds, and precipitation frequency.

Part II, The Oceanic Heat Budget, presents monthly and annual maps of net shortwave, net longwave, and net allwave radiation; sensible and latent heat flux and evaporation; and net oceanic heat gain, the latter term being obtained as a residual of the heat budget equation. The mapping of large-scale fields is complemented by graphs depicting the annual march of heat budget terms in selected ocean areas. Monthly and annual values of heat budget terms are furthermore tabulated as means for five degree latitude bands.

The atlas is intended to provide a background climatology for researchers in meteorology and oceanography, and it may find some use by those involved in marine biology or the commercial fisheries.

Hastenrath is Professor of Meteorology at the University of Wisconsin-Madison and Lamb is Lecturer in Meteorology at the University of Adelaide, Australia. The set is available from the University of Wisconsin Press, 114 North Murray St., Madison, WI 53715; the cost is $70.00.

EDIS Prints Great Lakes Data Catalog

EDIS' National Climatic Center recently published "International Field Year for the Great Lakes (IFYGL) Data Catalog: United States Data Archive" (NOAA Technical Memorandum EDIS NCC-3). This 203-page publication is the final IFYGL Data Catalog. It describes the data archived from investigations by scientists in Canada as well as the United States. Several disciplines are represented, including meteorology, limnology, biology, and chemistry. Indexes and cross-indexes are given to aid in ordering data from the U.S. IFYGL Data Archive.

Copies of the catalog are available from the National Climatic Center, Federal Building, Asheville, NC 28801.

Lives of Salmon Are Illustrated

Publication of "**Pacific Salmon**," by R.J. Childerhose and Marj Trim has been announced by the University of Washington Press in Seattle. The large format 166 page volume is richly illustrated with more than 100 color photos, species paintings from egg and alevin through the spawning stages, species distribution maps, and many detailed line drawings of various aspects of salmonid life cycles. Besides the six species of Pacific salmon (sockeye, pink, coho, chum, chinook, and masu), the steelhead trout is also included.

Written with a Canadian emphasis and primarily for a general audience, the authors draw on the research of leading Canadian fisheries scientists to cover such topics as the history of salmon exploitation, salmon transplants, salmon enhancement techniques, lake fertilization, environmental problems, ocean distribution, etc. The volume costs $25.95 and is available through the University of Washington Press, Seattle, WA 98105.

PACIFIC WHITING CATCH AREAS TOLD

A summarization of the fishery for Pacific whiting by the foreign fleet for the year 1978 is available through the National Marine Fisheries Service from the Observer Program. Information consists of a report and of navigational chart overlays showing trawl locations. Contents of the report include a summarization of the deployment of the fleet by location and month, the catch per effort, and a tabulation of the location (latitude/longitude, loran), date, depth, and duration of each trawl by descending order of catch per effort for all trawls made by vessels with observers aboard. Overlays (for NOS Charts 18003 and 18010) show the total trawl locations by month and INPFC area for vessels having NMFS observers aboard.

Those interested in these data may receive either the report or the report and the navigational chart overlays by submitting their mailing address and specifying which they wish to receive.

Mail requests to: Resource Assessment and Conservation Engineering Division, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, 2725 Montlake Boulevard East, Seattle, WA 98112, ATTN: Ben Patten.