

SCIENTIFIC COMMITTEE ON OCEANIC RESEARCH

WORKING GROUP 47

OCEANOGRAPHIC PROGRAMME DURING THE FGGE

Atlantic Ocean Panel of SCOR Working Group 47

The Atlantic Ocean Panel (SCOR-WG 47) met in Paris from 11 to 13 June 1980 under the auspices of the IOC. The list of attending scientists is given in Annex 1.

I - Dr Klaus Voigt, on behalf of Dr. Mario Ruivo, ICO Secretary, opened the workshop with welcoming remarks. Ph. Hisard, chairman of the panel, welcomed the participants and gave the general objectives for the meeting. These included providing input to the wrap-up meeting for FGGE and establishing mechanisms for future cooperation. The many contributions of Dr Walter Duing to the development of an oceanographic experiment in the Equatorial Atlantic were recalled. Dr. Duing died in March 1980. Dr. Voigt was congratulated on the 21st anniversary of the first direct measurements of the Atlantic Equatorial Undercurrent, which he made on the R.V. "M.Lomonosov".

The absence of USSR oceanographers at the meeting was discussed in view of the intensive program they conducted during FGGE on board the R.V. "AK. Kurchatov" and R.V. "Prof. Schtokman".

II - In the first presentation, Ph. Hisard described the large-scale meteorological conditions observed during FGGE, noting the severity of the 1978-1979 winter in the USA and Europe. The severity of the winter over the northeast USA was not predicted by a weather-Forecast-predictor model, a model which does not take into account

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the SST Field of the Atlantic Ocean. In fact, the SST Field of the Atlantic was anomalous, with a large pool of cold water found to the southeast of New Foundland. The cold water pool may be linked to a strongly negative trough in the atmospheric pressure field, as evidenced by the 700 mb height departure for the 1978-1979 northern winter (Harnack, 1980 in Monthly Weather Review 108-1)

Concurrently, it appears that the intensity of the coastal upwelling along the Canary Current was low, as indicated by positive SST anomalies at Dakar. Similarly, the anomaly of air-temperature at Alexander Bay (28°34'S, 16°34'E) along the Benguela Current, was + 2°C. The relation of these anomalies to each other and other features such as hurricane development, warm water in the tropical North Atlantic, tuna captures and Solar Maximum years (79-80) is still unknown.

III - That afternoon and the next day and one half was spent reviewing data and preliminary results from the FGGE participants

1) P. Speth from Inst. Geoph. Meteor. Univ. Köln (FRG) discussed "Meteorological Influence on Equatorial Upwelling in the Atlantic Ocean" using SST data from TIROS-N (which provides a spatial resolution of 1° between 7°S and 15°N and a temporal resolution of one Field per day), meteorological data from ECMRWF and cloud wind data from Meteosat. He found that the southernmost position of the ITCZ occurred in March, along 3°N and the northernmost in May.

2) E. Fahrbach from Kiel presented results from the R.V. "Meteor" cruise along 22°W, from 3°N to 2°S, between 27 January and 23 June 1979. Data sets included those obtained by the towed Delphin system, CTD stations, current meter deployments, drifter experiments and nutrient sampling.