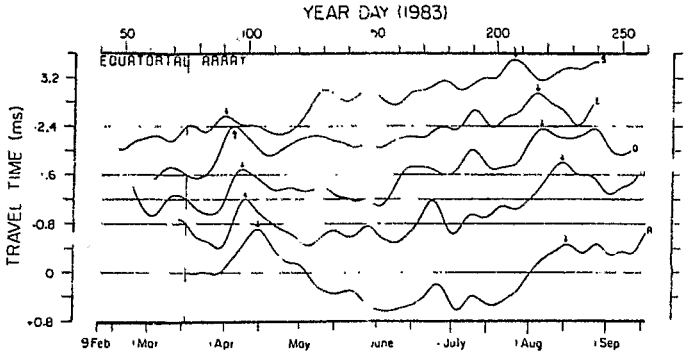


Fig.2. Relative travel times from sounders along the equator (38°30 W to 10°W, from top to bottom). Arrows indicate data plotted in Fig.4.

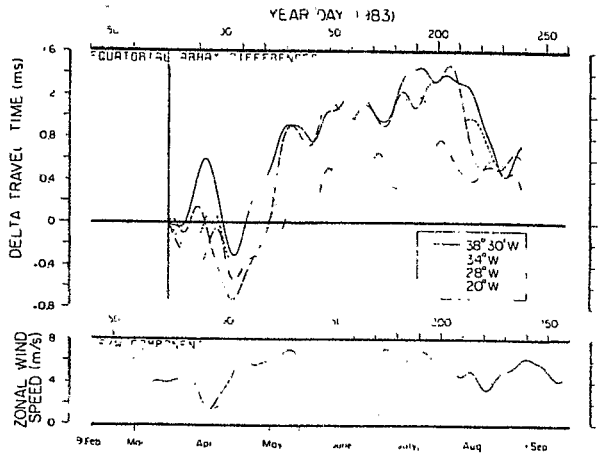


Fig.3. (upper panel) Difference in travel times between the indicated sounder and 10°W. On the ides of March the difference is set equal to zero, so the figure describes the difference in dynamic height relative to that date. (lower panel) Westward zonal wind at SPP (see Garzoli & Katz, this issue).

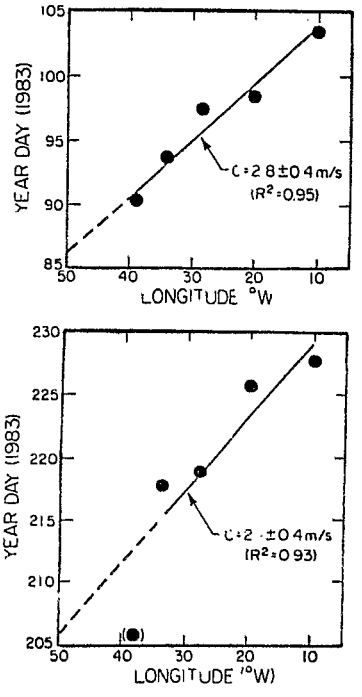


Fig.4. Day of maximum thermocline deepening at each sounder due to pulses preceeding (above) and after (below), the upwelling season. 38°30'W is excluded from the regression analysis below.

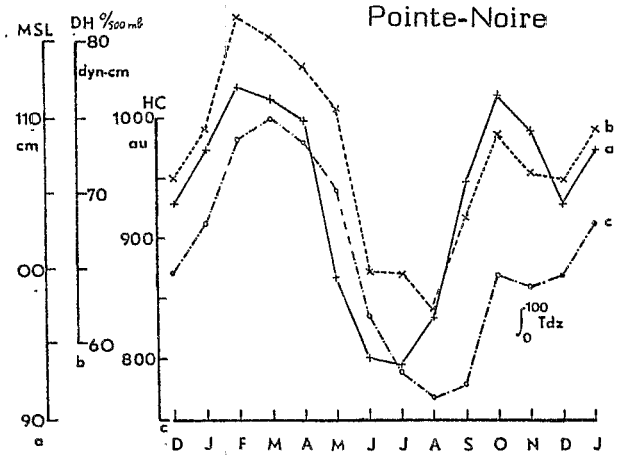
SEASONAL VARIATION OF HEAT-CONTENT AND SEA LAVEL IN THE GULF OF GUINEA

JEAN-MARC VERSTRAETE

Along the coast of the Gulf of Guinea, the largest seasonal variations of the subsurface thermal structure and SST occur in two areas: between 2°E and 8°W (Ghana and Ivory Coast) and between the equator and 6°S (Gabon and Congo).

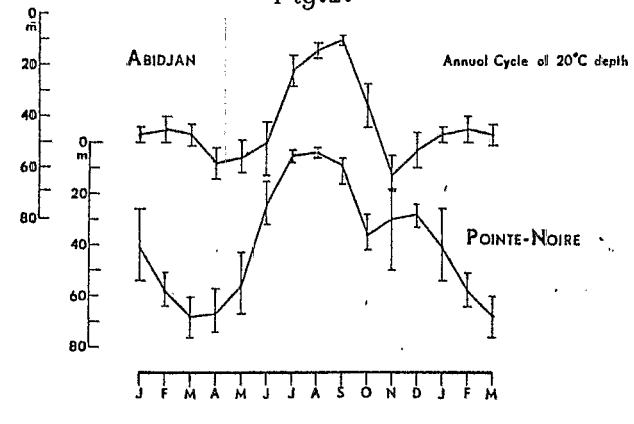
The historical Nansen, bathythermographic and sea level data files have been analysed in these two areas where data coverage is sufficiently dense. This study establishes the climatological seasonal cycle of the mean sea level together with the heat content and the steric height seasonal variations (fig.1.). The main upwelling onset is detected by a drop of sea level, a drop of surface dynamic height (O/500mb) and a rise of the tropical

Fig.1.



thermocline (fig.2.) respectively in April-May (Abidjan-Tema), March-April (Pointe-Noire). In the Gulf of Guinea coastal upwelling areas, the sea-level drop leads the SST and the Heat-Content drops in the superficial layers by about one month (Fig.1.). This drop and this lag are more likely related to the vertical propagation of the seasonal upwelling signal from at least 300 m or more probably from 500 m.

Fig.2.



MOORED CURRENT METER MEASUREMENTS IN THE ATLANTIC NORTH EQUATORIAL COUNTERCURRENT DURING 1983

P.L. RICHARDSON

Current meters were moored at depths of 20, 50, 75 and 150 m near 6N, 28W from February 25 to September 13, 1983. From February to May the low frequency zonal velocity was slow and westward. From May to September the zonal velocity was eastward with peak (low passed) speeds up to 60 cm sec^{-1}. During July the eastward flow was approximately 40 cm sec at all four depths. It is concluded that the surface and subsurface Countercurrent disappeared on a seasonal basis during 1983. Strong fluctuations were observed with periods in the band 1-2 months and 4-5 days. The amplitude of these fluctuations appeared to be maximum during the period of swift eastward Countercurrent flow.

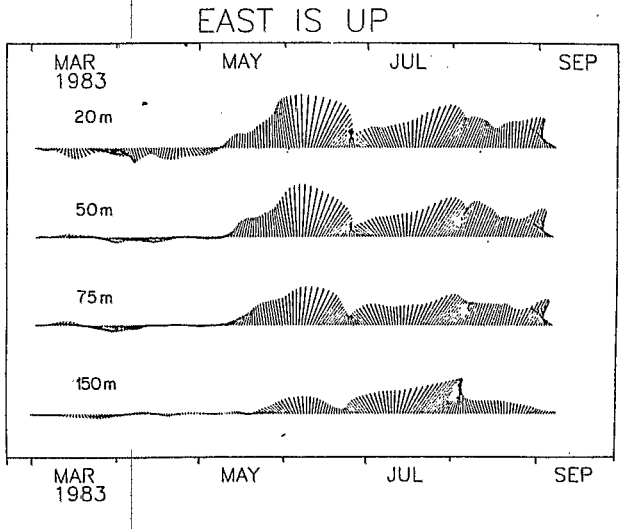


Fig.1. Velocity sticks series from current meters near 6N, 28W. Eastward direction is oriented vertically upward in this figure to show the strongly zonal current. Maximum velocity is 60 cm sec^{-1} in June. Values were lowpassed with a 10 day (σ = 2.5 days) Gaussian filter to emphasize the low frequency variations.

PROGRAMME NATIONAL d'ETUDE de la DYNAMIQUE du CLIMAT

FOCAL

FOCAL INFORMATION

N - 5 Avril 1984

Le bulletin FOCAL INFORMATION diffuse des informations scientifiques sur le programme FOCAL - Programme Français Océan et Climat dans l'Atlantique Equatorial - qui est un programme pluriorganismes (CNRS-Muséum-ORSTOM-CNEXO-Université de BREST-METEO-TAAF). Il est publié par le groupe scientifique FOCAL avec un soutien financier du PNEDC.

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Ce numéro est spécialement consacré au compte-rendu de la réunion des groupes FOCAL et SEQUAL qui a eu lieu à l'UNESCO à Paris , du 27 au 29 février 1984 . La langue anglaise ayant été employée au cours de cette réunion les contributions sont publiées dans cette langue .

Ce compte rendu est suivi de la présentation du programme STACS par R. Molinari.

THIRD FOCAL-SEQUAL REUNION

The third F/S reunion opened on February 27th, at 0945 with a welcome speech, from François Jarrige, the ORSTOM representative. Yves Tourre then made the final modifications to the agenda, emphasizing that it was a working reunion with two important Panel Discussions on Tuesday afternoon (modelisation) and Wednesday morning (Data Bank - Bank Exchange).

Eli Katz remarked that the field programs were past their mid-points, and underlined the importance of comprehensive analyses of both historical data and the results of a dense set of response models. This third F/S reunion as well as Sections, GATE, FGGE, EQUALANT, should serve to initiate the following TOGA - Atlantic-CCCO panel.

After Jacques Merle made a brief review of the FOCAL program, other field programs were discussed. (See Agenda and Appendix).

SCIENTIFIC RESULTS

Despite the variety of measurement techniques and the short time available to assess the data, a coherent picture of the Tropical Atlantic circulation during 1983 emerged from the scientific talks. We only present the highlights here ; a complete set of abstracts appears in Appendix A.

The FOCAL/SEQUAL experiment began in July 1982, coincident with the start of a massive