

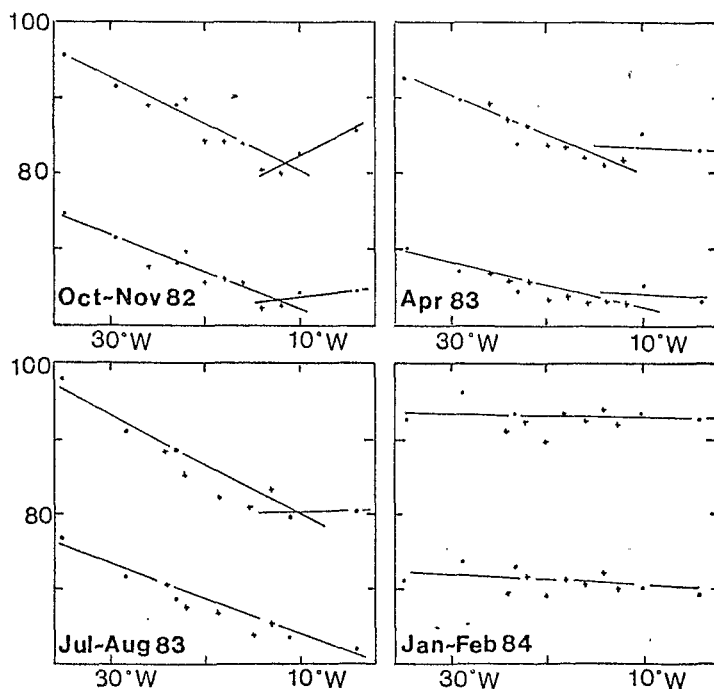
Fig.1. Trajectories of 21 freely drifting satellite-tracked buoys launched in the vicinity of the North Equatorial Countercurrent during February, April, July and September 1983. Dots are spaced at approximately weekly intervals. Shading indicates the general location of the Countercurrent during summer and fall.

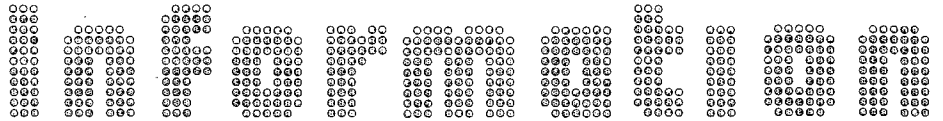
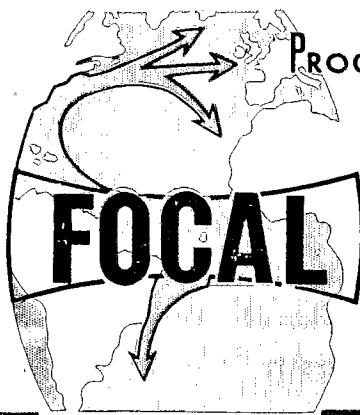
ZONAL PRESSURE GRADIENT AND UNDERCURRENT TRANSPORT FROM FOCAL CRUISES (JULY 1982 - FEBRUARY 1984)

PH. HISARD AND CH. HENIN

Seven oceanographic cruises from July 1982 to February 1984, in the Equatorial Atlantic, on a three-month interval basis give us the opportunity to document variations of the zonal pressure gradient and Undercurrent transport per unit width, using an homogeneous data set from CTDO-casts and simultaneous current-profiles under a free-drifting buoy, every 30 n.m. along five

N-S sections, from 35°W to 4°W. ZPG was minimum during northern winter and maximum during summer. The western area appeared to be independent as under a quasi permanent forcing of westward wind. This feature was likely responsible for a surface equatorial eastward jet at 35°W during April 83 when wind stress somewhat relaxed. Sea surface slope reversal in the eastern area occurred during autumn 82 as far west as 14°W and accounted for a low salinity surface equatorial westward jet at 4°W (draining the Gulf of Guinea) and for slackening of the EUC. Averaged values of EUC transport at 23°W and 4°W were 56 and 43 $m^2 \cdot s^{-1}$ respectively. It was minimum during summer and maximum during late Autumn at 23°W, but maximum during summer 83 and minimum during January 84 at 4°W, strongly dependent upon sea slope reversal. During January 84, a nearly flat equatorial sea surface from W to E but a still present EUC called to mind the anomalous 1963 winter (Equalant 1). Moreover, a surprising downward slope to the west was evidenced between 29°W and 35°W. Two further cruises in April and July 1984 will help us to decipher the true nature of the annual cycle.





Le bulletin FOCAL INFORMATION diffuse des informations scientifiques sur le programme FOCAL - Programme Français Océan et Climat dans l'Atlantique Equatoriale - 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