

CVFZ DURING JULY AND NOVEMBER 2017

**Ángel Rodríguez-Santana¹, Ángeles Marrero-Díaz¹, Antonio Martínez-Marrero²,
Nadia Burgoa¹, Carmen Gordo-Rojas², Diana Grisolia², Luis Valencia³, Francisco
Machín¹, Luis Cana², Antonio G. Ramos^{4,5}**

¹ Departamento de Física, Grupo de Investigación en Oceanografía Física y Geofísica Aplicada (OFYGA), Universidad de Las Palmas de Gran Canaria, ULPGC, Las Palmas de GC, SPAIN.

angel.santana@ulpgc.es

² Instituto de Oceanografía y Cambio Global, IOCAG, Universidad de Las Palmas de Gran Canaria, Las Palmas de GC, SPAIN.

³ Escuela de Ciencias del Mar, Pontificia Universidad Católica de Valparaíso, Valparaíso, CHILE

⁴ División de Robótica y Oceanografía computacional (SIANI). Universidad de Las Palmas de Gran Canaria, Las Palmas de GC, Spain

⁵ Servicio Integral de Tecnología Marina Avanzada (SITMA-ULPGC), Universidad de Las Palmas de Gran Canaria. Las Palmas de GC. Spain

Abstract: During July and November 2017, the multidisciplinary cruises FLUXES I and FLUXES II were carried out in the Cape Verde Frontal Zone (CVFZ). This work describes the conditions and hydrographic structures present in both cruises and discusses the different behavior of the CVFZ in both periods. This thermohaline frontal zone between NACW and SACW, due to the compensating character of the temperature and salinity fields in the density, presents several mesoscale and submesoscale structures, with an important spatial and temporal variability. All these frontal structures interact with the Cape Blanc filament, increasing the spatio-temporal variability in the region, where processes as the interleaving play a very important role. The availability of a greater number of physical instruments during the survey FLUXES II has permitted a detailed characterization of the front and associated structures at mesoscale-submesoscale scale. While in FLUXES I the physical variables have basically been obtained with CTD, in FLUXES II has also been provided with SEASOAR and gliders. This work is the framework for an important number of scientific communications on more specific aspects of the FLUXES project that are presented in this same meeting.

Key words: Cape Verde Frontal Zone, fronts, mesoscale processes, interleaving process, FLUXES project

Acknowledgments: This work has been supported by the Spanish government (Ministerio de Economía y Competitividad) through project FLUXES (CTM2015-69392- C3-3- R)