

of the eddy was about 0.33 km h^{-1} (0.17 knots). Translation velocity showed high variability: maximum values greater than 1.5 km h^{-1} occurred at the very beginning of the experiment, whereas minimum values less than 0.25 km h^{-1} occurred at the end of the second week. Fig. 1B shows the movement of Cyclone *Opal*. This movement posed a serious tracking and sampling problem for the E-Flux III cruise. Several methods were utilized to

track the translation of the eddy and to locate the position of its center, the best of which turned out to be the use of near real-time ADCP velocity data (Dickey et al., 2008). The sampling scheme was constantly adjusted so that each transect would pass through the best estimated coordinates of the center of the eddy. As shown in Fig. 1A, the resulting sampling pattern only partially resembled the planned star-like structure. The method used for tracking the

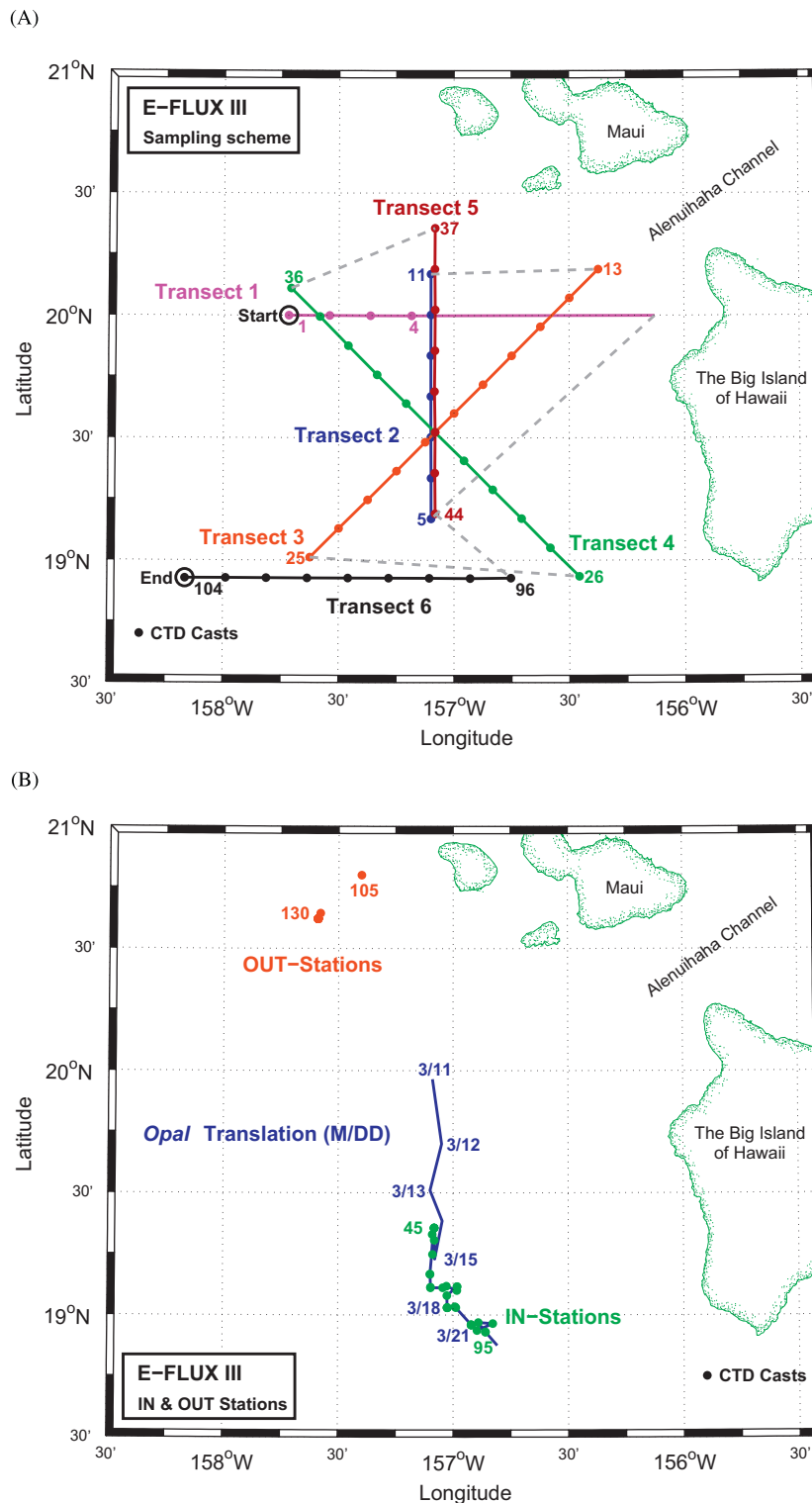


Fig. 1. Spatial arrangement of the six transects during E-Flux III (A), and position of IN- and OUT-stations (B). The planned star-like pattern (see Fig. 12a in Dickey et al., 2008) was rearranged to have all the transects crossing the center of the eddy as *Opal* was moving north to south. Because of bad weather conditions only four CTD casts were collected during Transect 1.