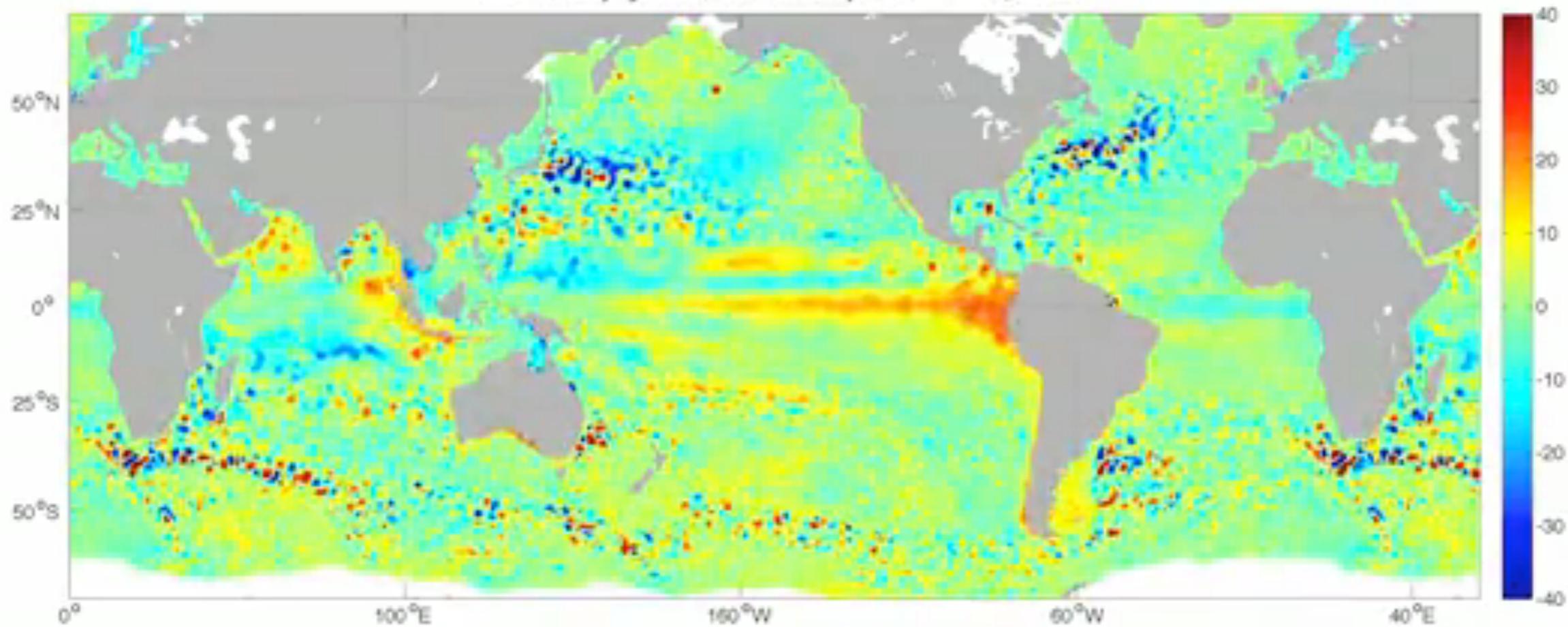


AVISO weekly gridded SSH anomaly (cm) 04-Jun-1997



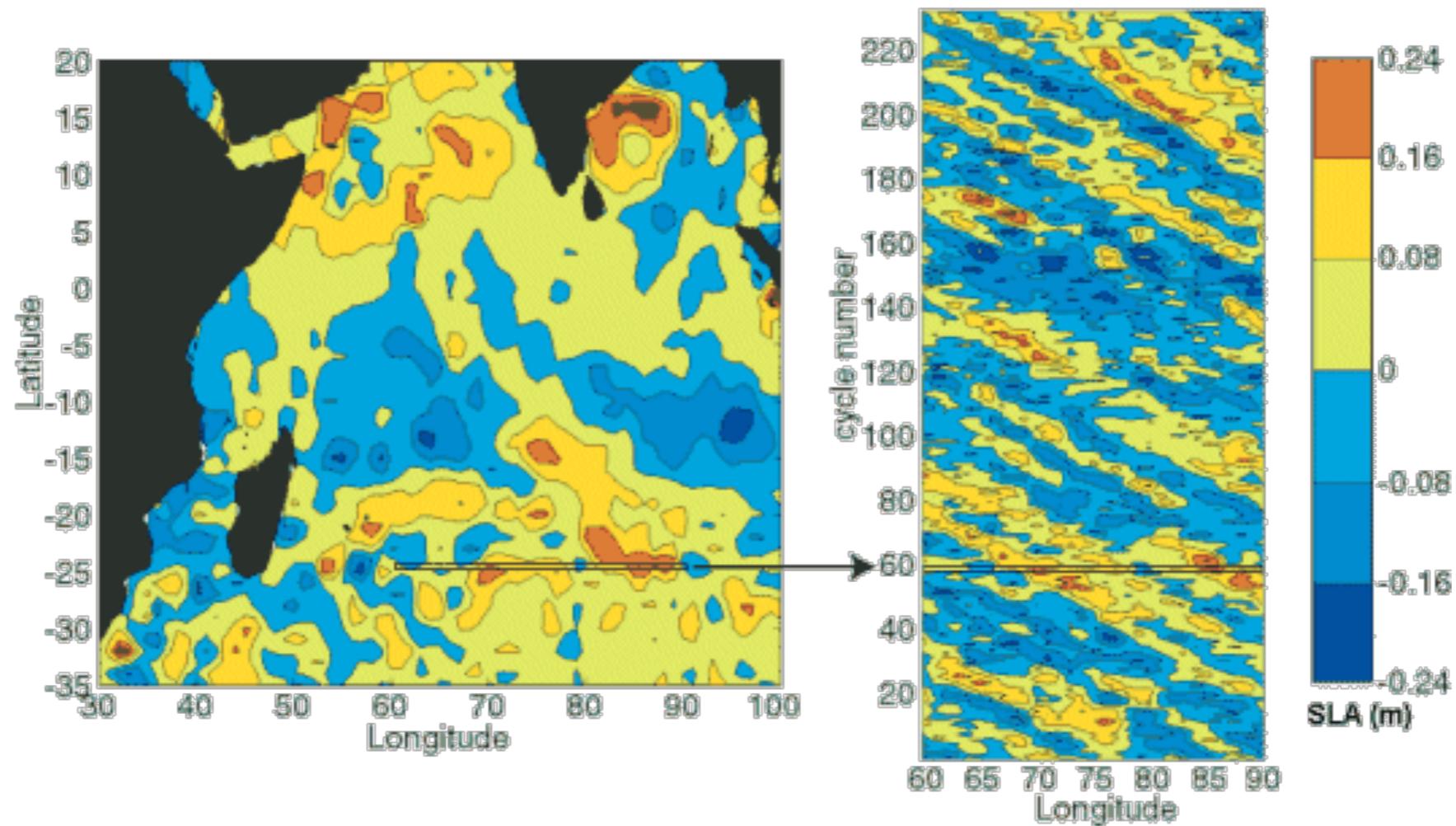
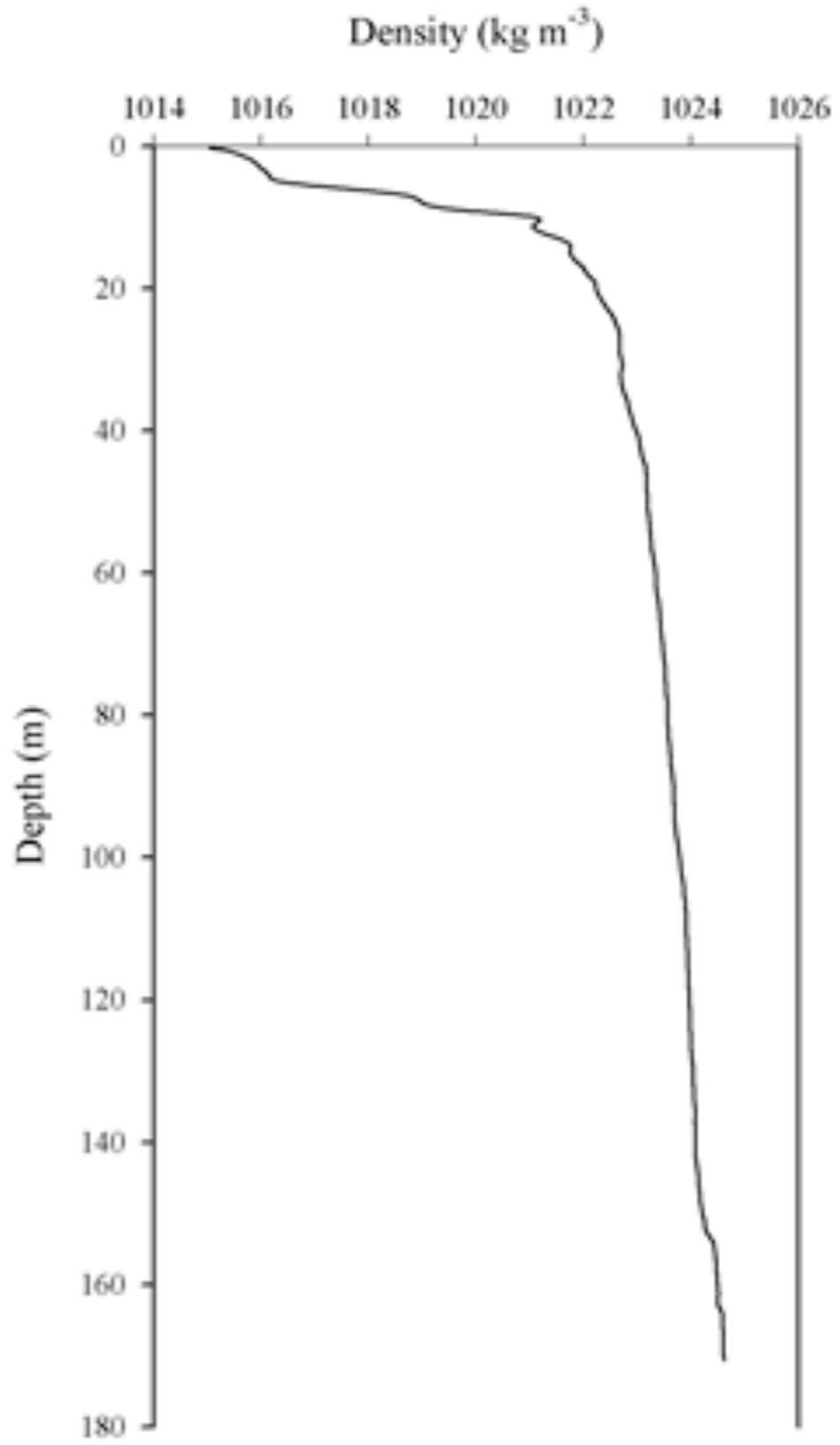
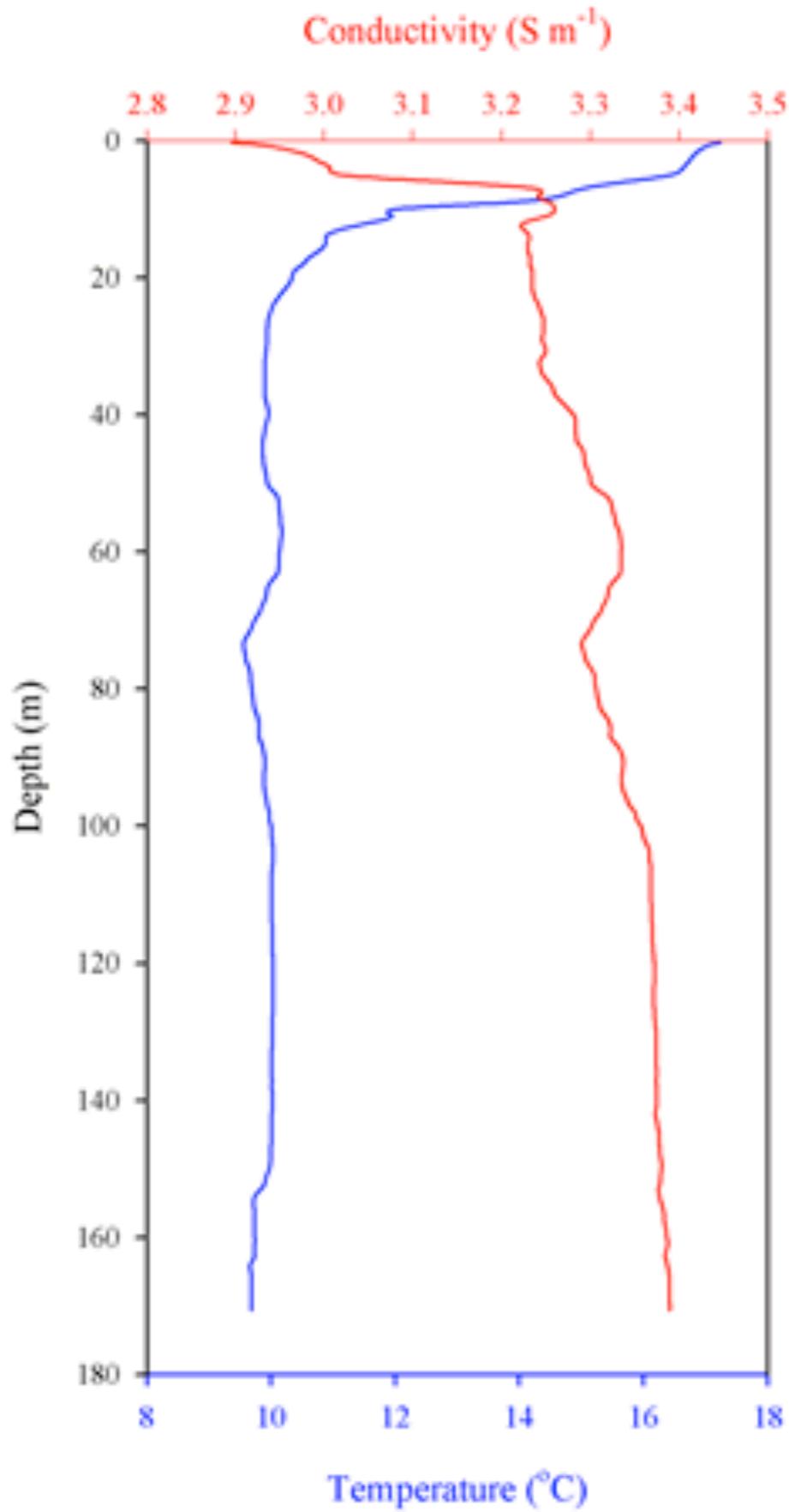


Figure 9: The westward phase propagation of Rossby waves in the ocean is clearly visible in a time-series of sea-surface height (SSH) anomalies from NASA's TOPEX/POSEIDON satellite, from Southampton Oceanography Centre. 10 cycles on the y-axis corresponds to about 3 months.



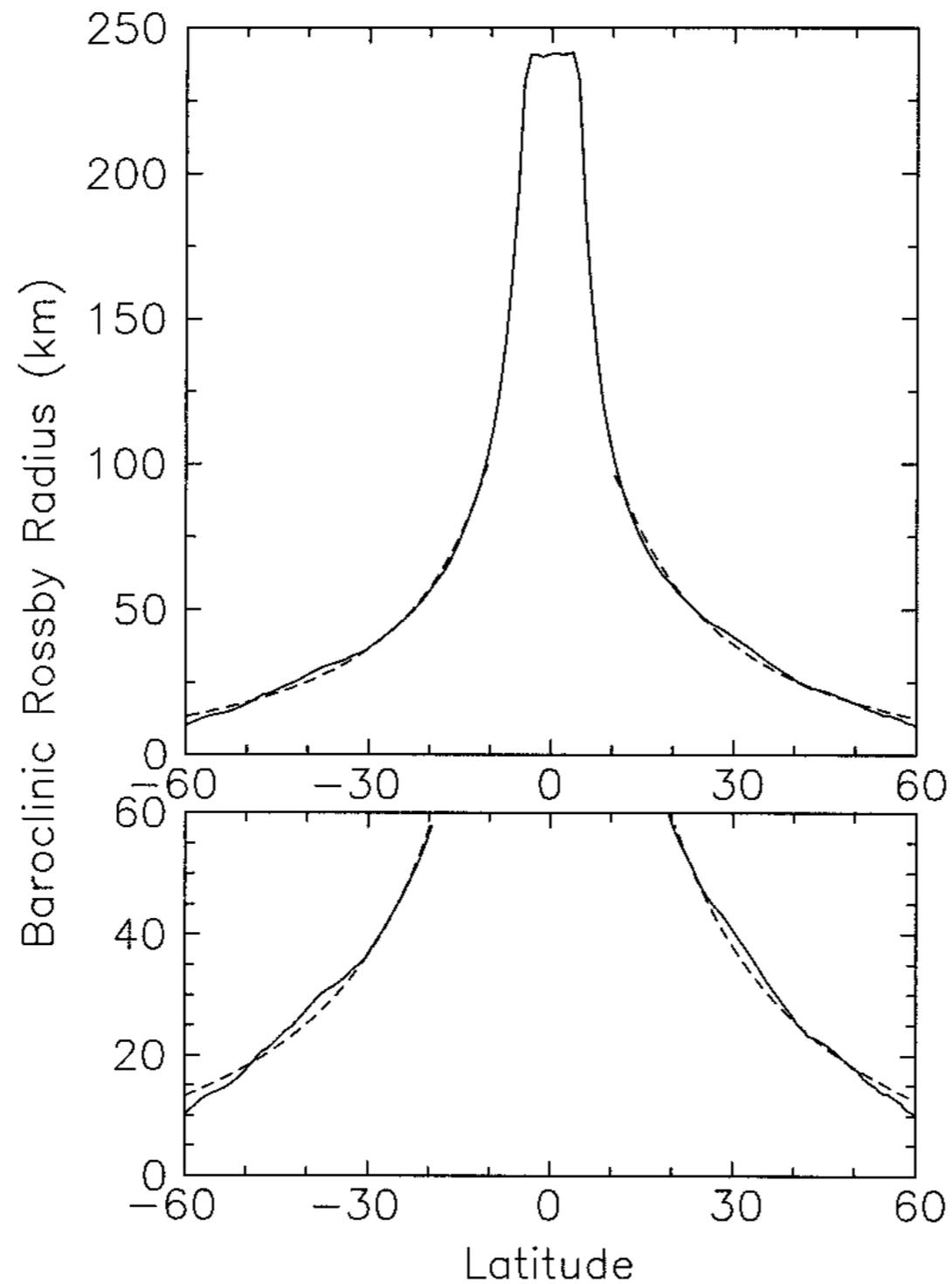


FIG. 7. The global zonally averaged first-baroclinic Rossby radius of deformation λ_1 in kilometers (solid line) obtained from the $1^\circ \times 1^\circ$ gridded Rossby radii shown in Fig. 6. The y axis is expanded in the lower panel to resolve the middle- and high-latitude Rossby radii better. The dashed lines represent least squares fits over the latitude range 10° – 60° to an empirical quadratic function of inverse latitude; the parameters of the least squares estimates are listed in Table 1. Least squares fit parameters for each individual ocean basin are listed in Table 1.

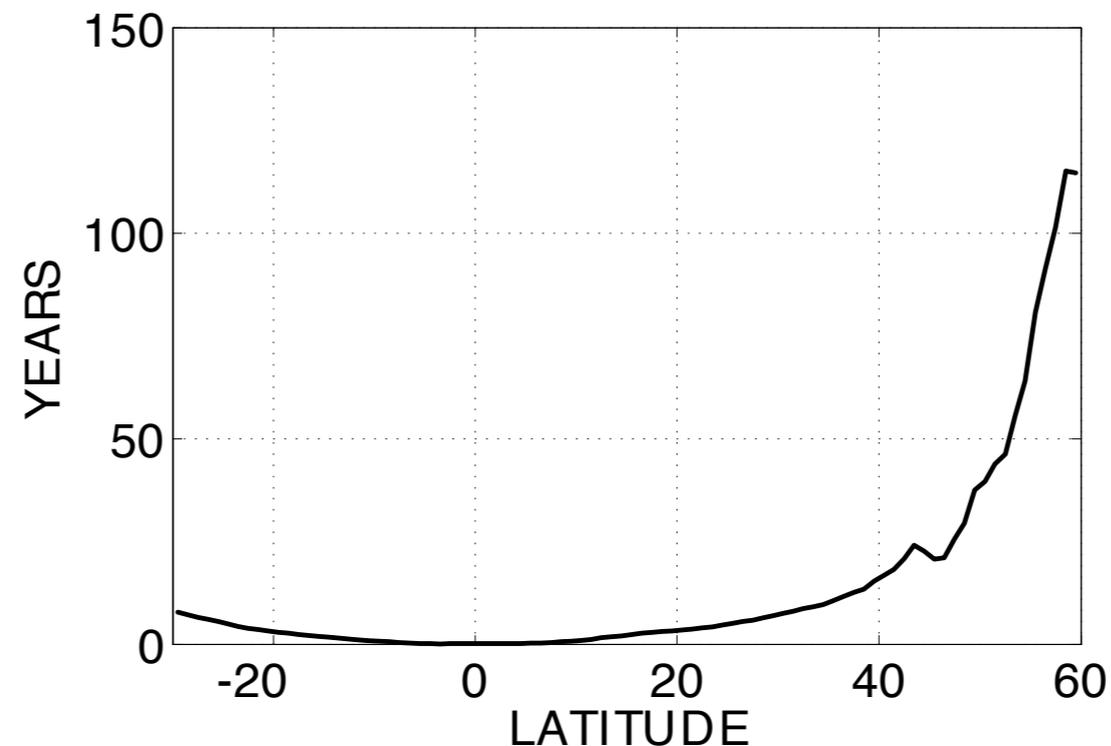


Figure 9: The time required for a first-mode baroclinic Rossby wave signal to cross the North Atlantic Ocean. Computed as $L(y) / (\beta(y) R_d^2(y))$, where $L(y)$ is the ocean width, and $R_d(y)$ is the zonal average first baroclinic mode deformation radius value from Chelton et al. (1998). Despite the poleward narrowing of the ocean, the reduction in both β and R_d greatly increases the adjustment time with latitude. Note that equilibrium times would be far longer.