

Red Sea Drifters: Overview

Near-surface GPS drifters in the Red Sea

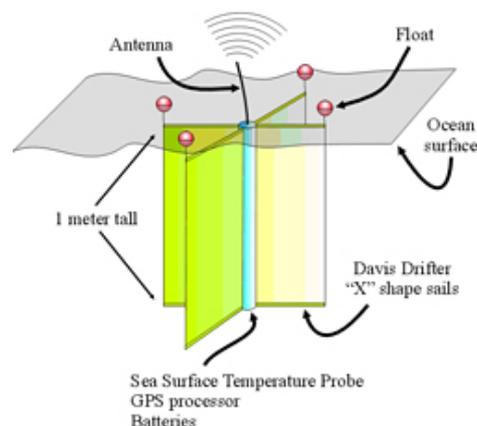
We are deploying Davis-type satellite-tracked surface drifters in the Red Sea during the semi-annual large-scale and small-scale KAUST hydrographic cruises for three years 2008-2010 in order to investigate the near-surface Lagrangian currents in the Red Sea. These drifter deployments will focus on the small-scale KAUST coastal region, but drifters will also be deployed over the entire eastern Red Sea. The research cruises will collect important hydrographic and biologic data on the Red Sea ecosystem, but to date there have been very few direct measurements of currents. Satellite-tracked drifters provide a simple yet powerful tool to track the motion of near-surface water on time scales ranging from the tidal/inertial band to monthly and longer. The deployment of drifters on KAUST cruises will yield Lagrangian current data of intrinsic interest and help place the other KAUST measurements in the context of the regional circulation. The combined drifter and hydrographic data will provide the first detailed look at the near-surface flow in this important section of the Red Sea. In particular, the KAUST Lagrangian measurements should identify (a) the source region(s) of the coastal current flowing along the coral reefs adjacent to the new KAUST campus and marine science institute and (b) if organized cross-shelf flows occur that help create a gyre-like circulation over the shelf as suggested by regional modeling.

Sponsors

This project was funded by [King Abdullah University of Science and Technology \(KAUST\)](#).



[Real-time Data](#)



[Enlarge Image](#)

Diagram of a GPS Drifter.



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GPS Drifter.

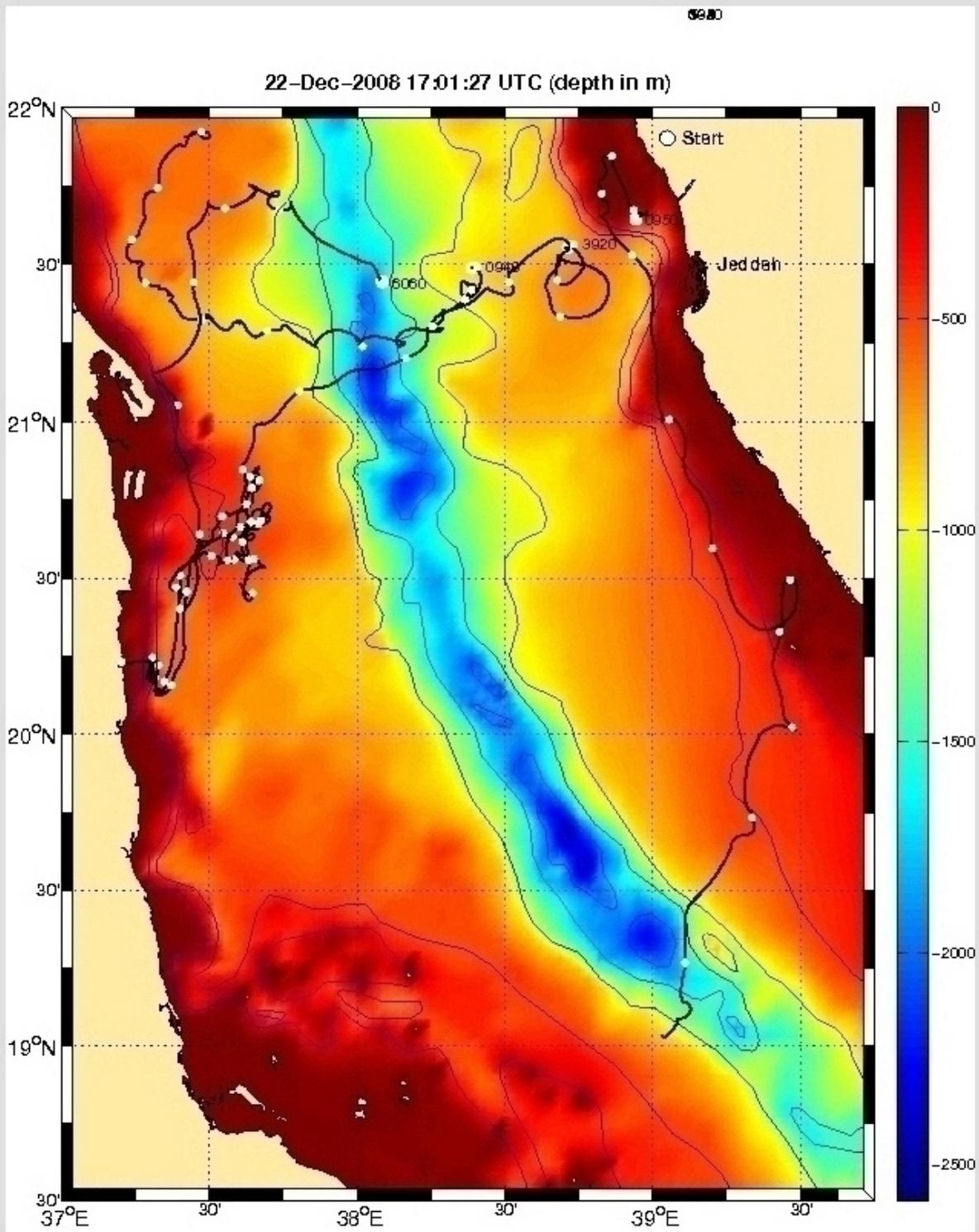


Figure 1. Most recent drifter tracks in the Red Sea. Solid white circles every 2 days.

Figure 2. Drifter SST C

Figure 3. Speed - Drifter 530940

Figure 4. April 2008 Mean Drifter velocity.

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