



Figure 4.8. Depth-averaged mean flow in Massachusetts Bay in winter calculated from numerical simulations carried out for the months November-February 1990-1992, when the water column is vertically well-mixed. The flow pattern is visualized by tracks of particles introduced along the dashed line to the east of Cape Ann. The white dots along the tracks indicate positions every 10 days. The black arrows show the vector current at every 2nd grid cell, and the background color is the current speed. The model results show a flow to the southeast of 0.05 - 0.1 m/s in the Gulf of Maine to the east of Massachusetts Bay (the Maine Coastal Current), some of which enters the Bay south of Cape Ann. Within Massachusetts Bay, the depth-averaged residual flow is strongest (about 0.05 m/s) along the western shore. See text for a description of the flow field.