Figure 11  Estimated annual cycle of air-sea $\Delta fCO_2$ for this Gulf of Maine study region (solid), for the Mid-Atlantic Bight (dotted), and the South Atlantic Bight (dashed) where the latter two results are derived from DeGrandpre et al. (2002) and Jiang et al. (2008) respectively.
Hourly versus ~monthly sampling
UNH/PMEL time series of atmospheric pCO$_2$
NASA-AIRS mid-tropospheric pCO₂ (blue), pCO₂ flask data, Barbados (red)
Figure 3. Cumulative net air-sea CO₂ fluxes during 2002 at 156°E at the equator. Flux from ambient $p$(CO₂) climatology and wind only gas transfer velocity (green), from ambient $p$(CO₂) and rain gas transfer velocity (blue), from $p$(CO₂) chemical dilution and rain gas transfer velocity, or interfacial flux (black solid), from raindrop wet deposition of DIC (black dash), and from the total rain (red).
Seasonal CO$_2$ flux anomaly (western Gulf of Maine)

Note: variability in winter

Mean +0.32 mol m⁻² y⁻¹
  +1.34 mol m⁻² y⁻¹ in 2007
- 0.75 mol m⁻² y⁻¹ in 2005
Table 4. The annual air-sea CO$_2$ fluxes from 1999 to 2008, both shelf-wide, and in grid box 1 comprising the CARIOCA mooring, in units of mol C m$^{-2}$ yr$^{-1}$. Negative values indicate an outgassing of CO$_2$ to the atmosphere. The 7 grid boxes covering the Scotian Shelf region have an area of 222,700 km$^2$; Box 1 has an area of 31,800 km$^2$ (see also Fig. 13).

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Shadwick et al, 2010
UNH CO₂ Deployment/ Observation Sites
Gulf of Maine 2004 - 2011
UNH primary study region within NERACOOS