



FIGURE 2.11. North-south (meridional) components of atmospheric circulation showing streamlines of mass transport, in  $10^{10} \text{ kg s}^{-1}$ . From Hartmann (1994). Clear areas are where transport at the top of the troposphere is to the north, shaded areas where transport at the top of the troposphere is to the south: (A) December, January, and February; (B) June, July, and August; and (C) annual average. Summer and winter are dominated by one Hadley cell, with the Intertropical Convergence (ITC) zone indicated. The annual average comprises two Hadley cells and other cells as idealized in Figure 2.12.