

## Addendum Items for Chapter 2

### Page 5, Figure 2.1

The color version of this figure online at <http://www.jsg.utexas.edu/climate-dynamics-book/> has contours labeled; the color bar was omitted in press.

### Page 6, line 2

Note that an “isobar” is a *contour* of constant pressure, not a *surface* of constant pressure. A surface of constant pressure would be termed an isobaric surface.

### Page 7, Figure 2.3a, and many other figures

Note that, according to Figure 2.1, the surface pressure over Antarctica and most topographical features is less than 900 hPa. In other words, the geopotential height in these locations is negative – the surface is “underground”. In these regions, many of the reanalyses (see page 4) extrapolate data to produce values – it’s called “data in rock”.

### Pages 15 – 20, Figures 2.9 – 2.12

As stated in the text on pg. 14, the vertical axis is pressure in hPa.

### Pages 26 – 27, Figures 2.17 – 2.18

The vertical axis is depth in m.

### Page 26, Figure 2.17b.

The cross-section is at 30°W. [The figure caption below is correct, and the figure title above (40°W) is incorrect.]

### Page 31, fifth paragraph, last line.

The reference should be to Chapter 8, not Chapter 5.

### Page 34, Table 2.1

Many of the exponents are incorrect. Here is the corrected Table 2.1.

Location	Percentage of Global Water	Volume of Water (km <sup>3</sup> )	Mass of Water (kg)
Oceans	97	$1.37 \times 10^9$	$1.37 \times 10^{21}$
Ice	2	$2.8 \times 10^7$	$2.8 \times 10^{19}$
Groundwater	0.7	$9.4 \times 10^6$	$9.4 \times 10^{18}$
Lakes	$1 \times 10^{-2}$	$1.25 \times 10^5$	$1.25 \times 10^{17}$
Soils	$5 \times 10^{-3}$	$6.5 \times 10^4$	$6.5 \times 10^{16}$
Atmosphere	$1 \times 10^{-3}$	$1.3 \times 10^4$	$1.3 \times 10^{16}$
Rivers and streams	$1 \times 10^{-4}$	$1.7 \times 10^3$	$1.7 \times 10^{15}$
Biosphere	$4 \times 10^{-5}$	$6 \times 10^2$	$6 \times 10^{14}$

Page 36, Figure 2.26 caption

Contour interval is 1 mm/day.

Page 40, Figure 2.31

The figure caption for Figure 2.31 indicates that this is the specific humidity distribution at 900 hPa, but it is really the specific humidity distribution at 1000 hPa, representing the surface air.

Page 41, Equation 2.8

6.112 not 0.6112

Page 41, Figure 2.32

The first three values for °F are incorrect. They should be -22, -4, and 14.

Page 43, second paragraph: Ice core records from Antarctica now go back to 800,000 years.