

Extra directions for Lab 6: The Skew-T Strikes Back

*Figure 6 in the manual is completely incorrect. Use Figure 6 from below.

Figure 1

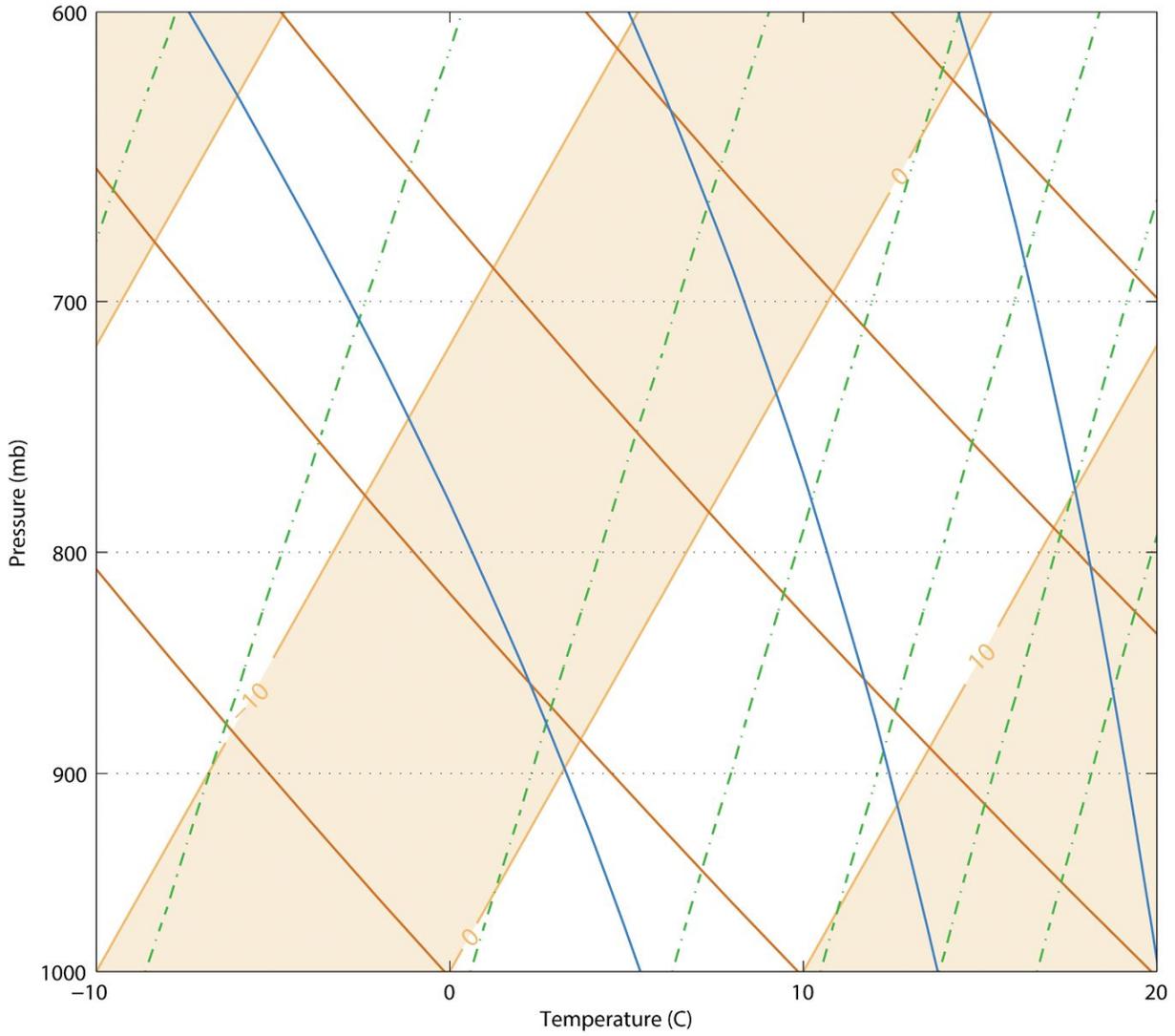


Figure 3

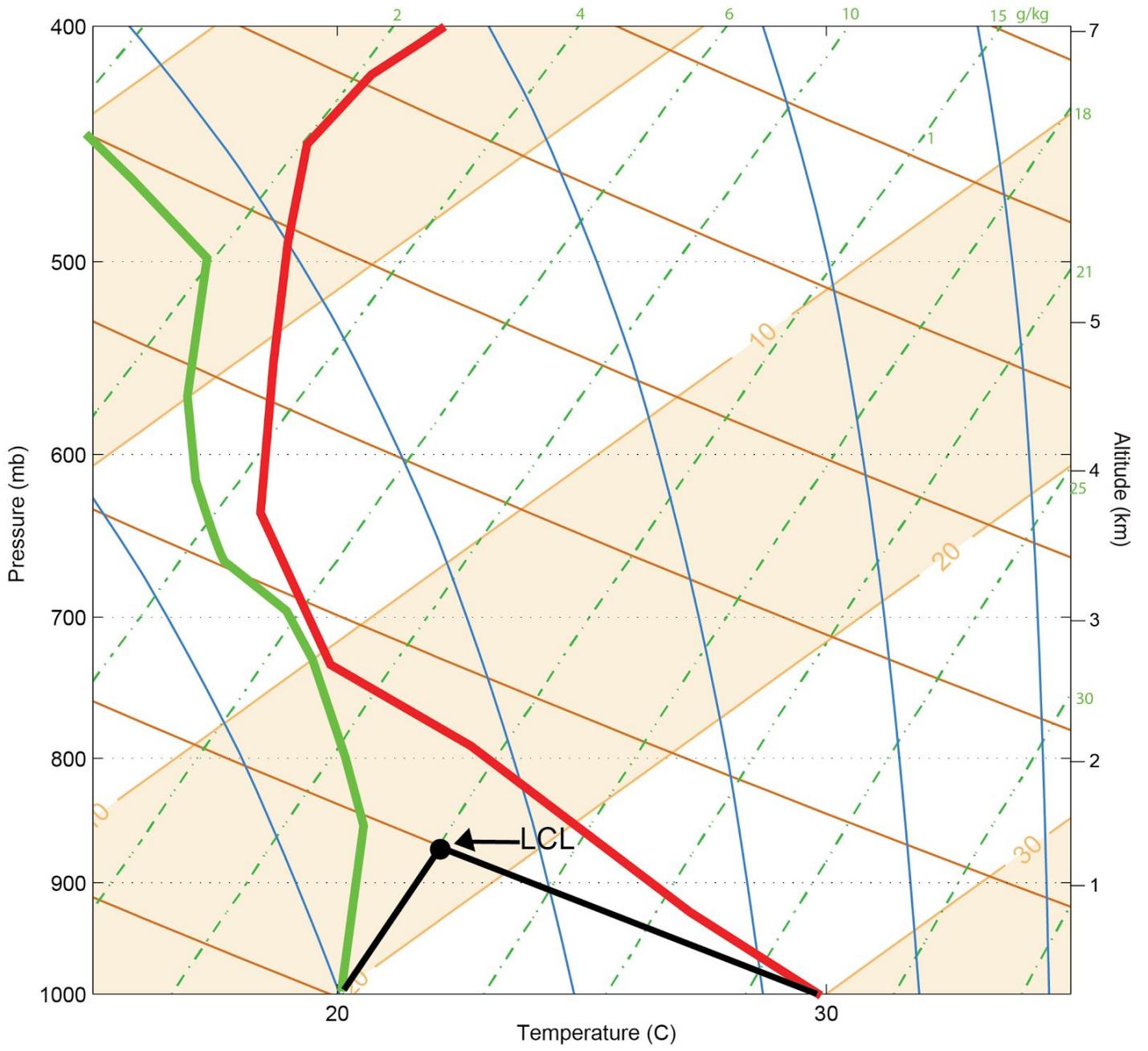


Figure 4

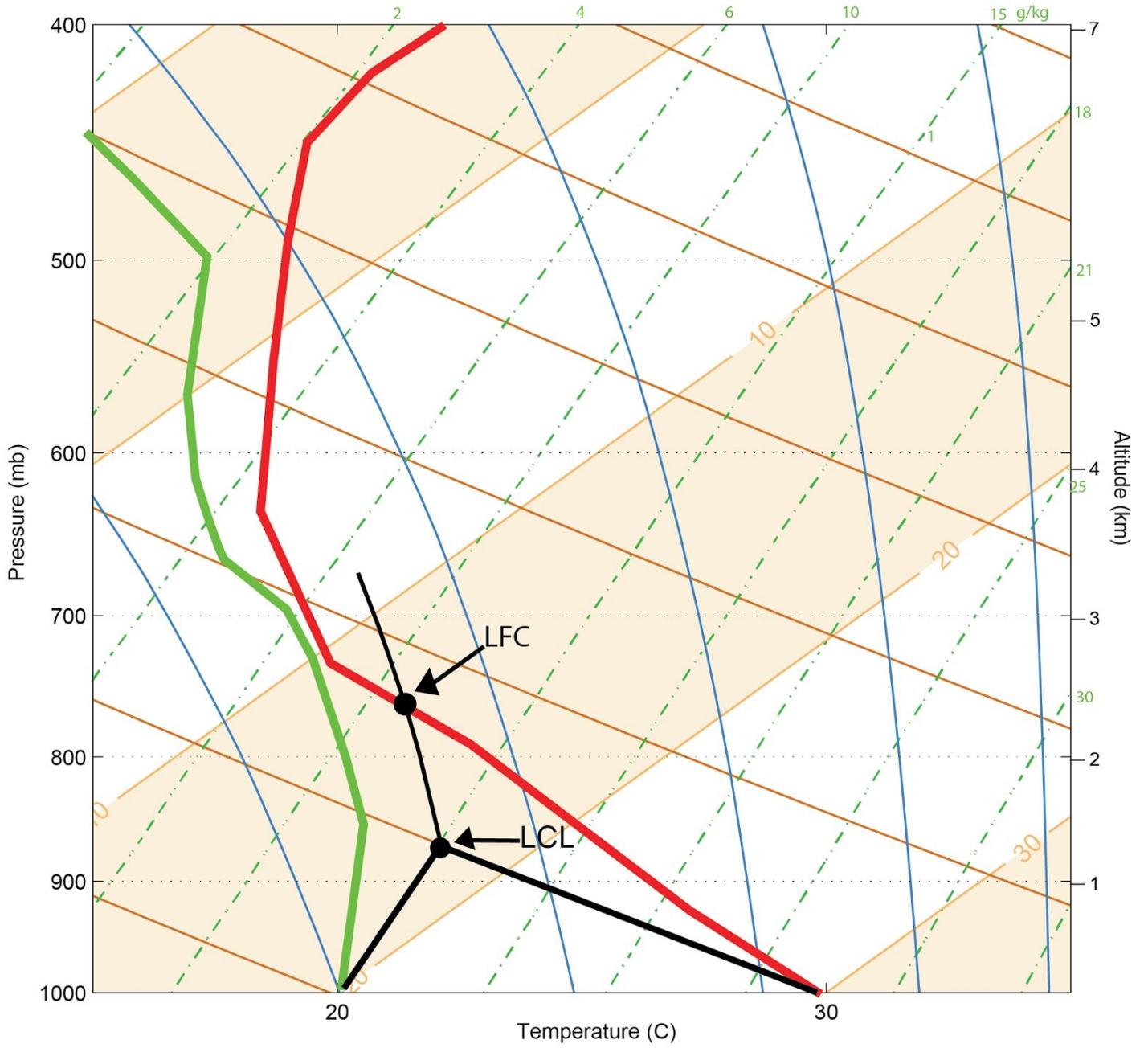


Figure 5

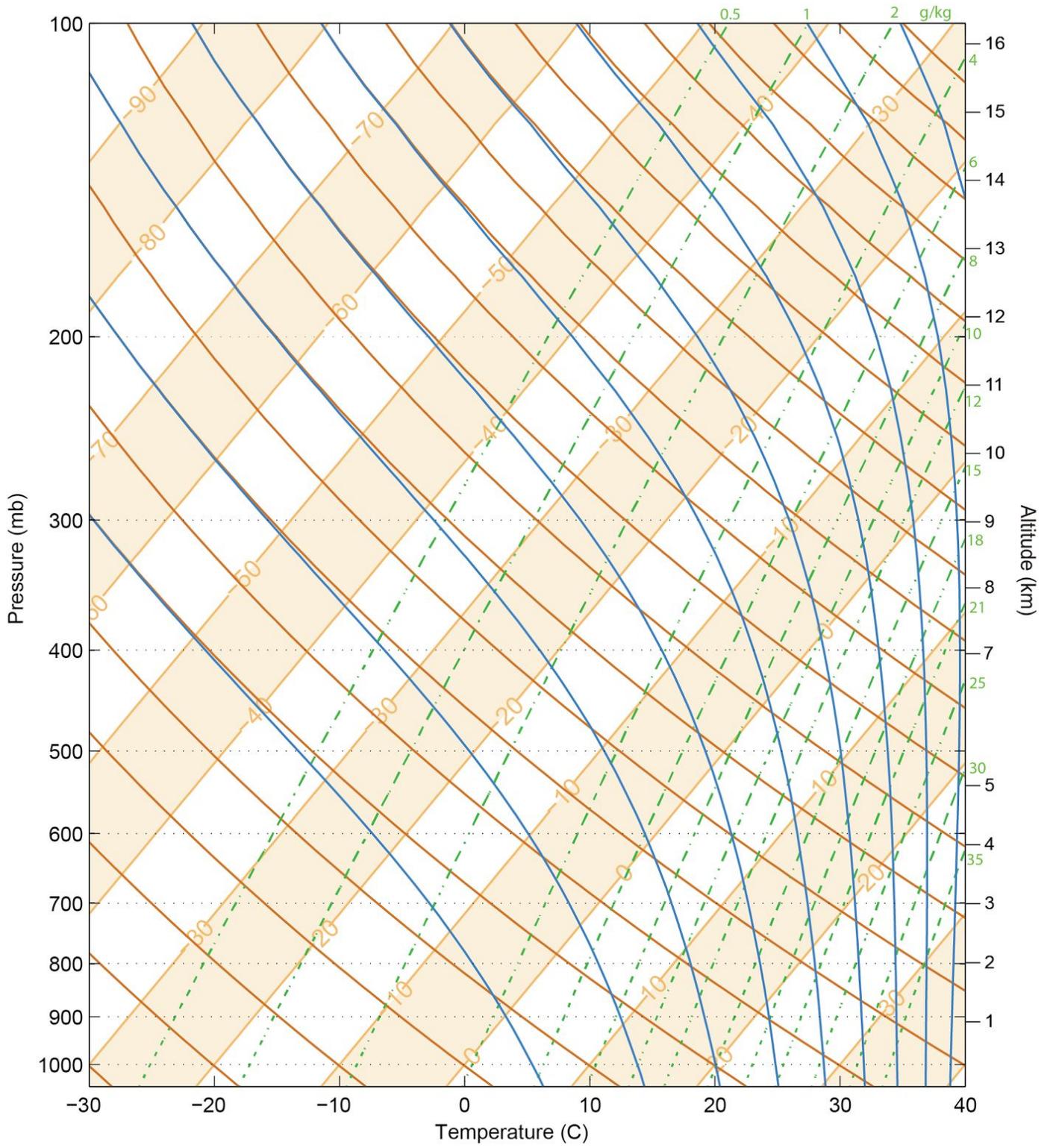
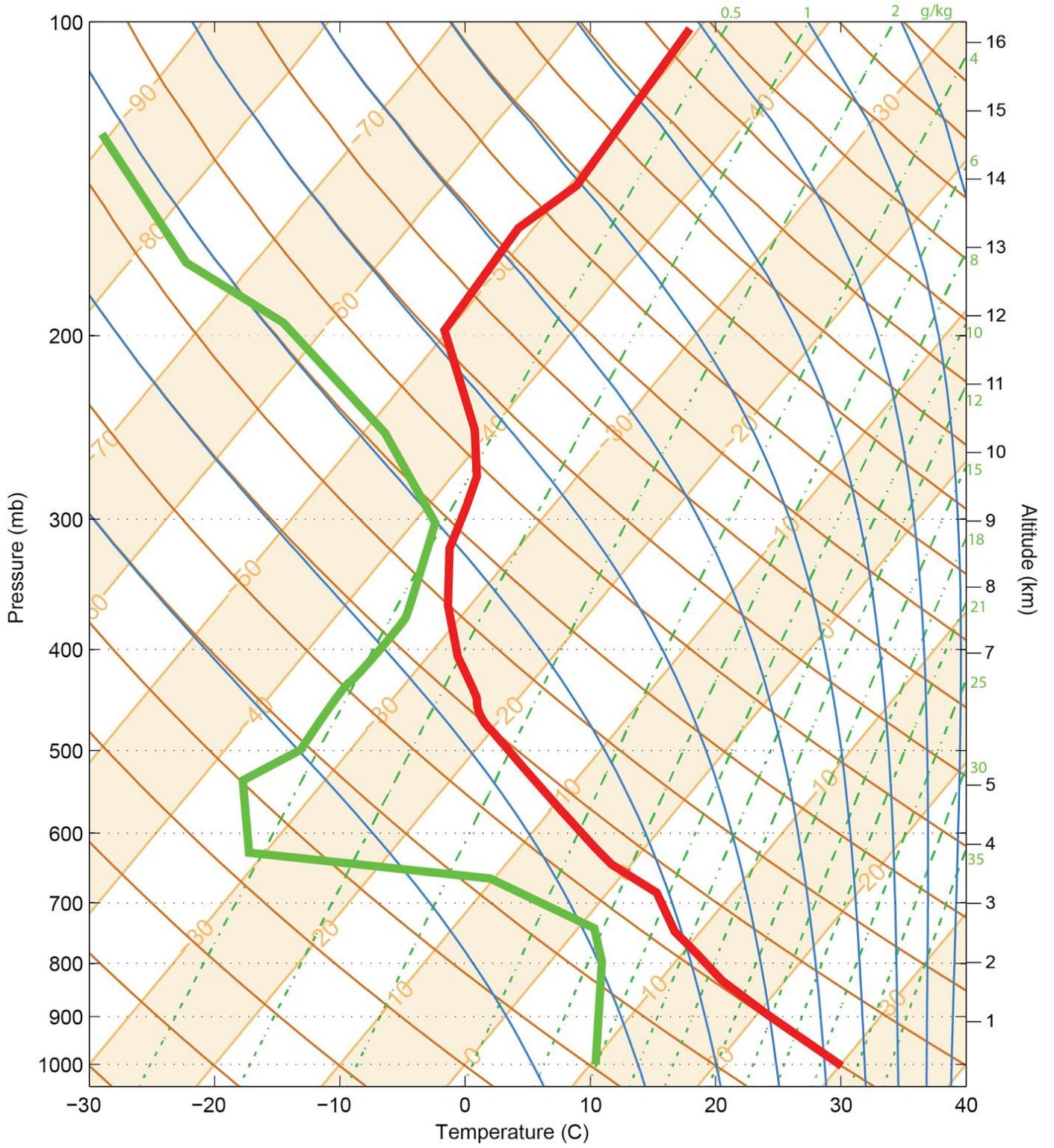


Figure 6



Sounding Data for Question 15

You only need pressure, temperature, and dew point columns.

PRES hPa	HGHT m	TEMP C	DWPT C	RELH %	MIXR g/kg	DRCT deg
1000.0	79					
925.0	729					
850.0	1424					
822.0	1703	-0.9	-5.9	69	3.01	15
811.0	1810	-1.3	-8.3	59	2.53	11
778.0	2134	-4.3	-9.3	68	2.44	0
748.2	2438	-7.1	-10.3	78	2.35	0
719.5	2743	-9.8	-11.2	90	2.26	0
715.0	2792	-10.3	-11.4	92	2.25	0
700.0	2954	-11.3	-12.4	92	2.12	0
663.8	3353	-14.1	-15.4	90	1.75	355
637.3	3658	-16.3	-17.7	89	1.50	10
612.0	3962	-18.4	-20.0	87	1.29	25
587.6	4267	-20.5	-22.3	86	1.10	10
564.2	4572	-22.7	-24.6	85	0.93	0
562.0	4602	-22.9	-24.8	84	0.92	0
541.2	4877	-24.5	-27.1	79	0.77	5
524.0	5112	-25.9	-29.0	75	0.67	355
500.0	5450	-28.3	-31.2	76	0.57	340
456.3	6096	-32.7	-36.0	72	0.39	0
418.0	6716	-36.9	-40.6	68	0.27	113
400.0	7020	-39.5	-43.7	64	0.20	170
366.0	7620	-45.2	-49.3	63	0.12	215
363.0	7675	-45.7	-49.8	63	0.11	218
349.5	7925	-48.0	-53.3	54	0.08	230
341.0	8087	-49.5	-55.5	49	0.06	231
303.3	8839	-57.0	-63.9	41	0.02	235
300.0	8910	-57.7	-64.7	40	0.02	230
289.0	9144	-59.7	-66.7	40	0.02	275
287.0	9188	-60.1	-67.1	39	0.02	250
286.0	9209	-59.7	-66.7	40	0.02	254
283.0	9276	-56.9	-64.9	36	0.02	267
275.4	9449	-55.0	-64.9	28	0.02	300
275.0	9458	-54.9	-64.9	28	0.02	300
270.0	9575	-55.3	-66.3	24	0.02	301
261.0	9792	-52.9	-65.9	19	0.02	303
252.0	10018	-51.9	-65.9	17	0.02	305
250.0	10070	-51.9	-65.9	17	0.02	305
238.9	10363	-51.6	-67.3	14	0.02	305
237.0	10415	-51.5	-67.5	13	0.02	305
225.0	10752	-49.5	-65.5	14	0.03	308
217.5	10973	-50.2	-68.1	10	0.02	310
217.0	10988	-50.3	-68.3	10	0.02	309
215.0	11049	-49.5	-67.5	10	0.02	304
207.6	11278	-49.7	-68.2	10	0.02	285
200.0	11520	-49.9	-68.9	9	0.02	285
190.0	11854	-50.7	-69.7	9	0.02	294
189.1	11887	-50.6	-69.7	9	0.02	295
182.0	12135	-49.7	-69.7	8	0.02	289
172.2	12497	-49.8	-70.4	7	0.02	280
166.0	12736	-49.9	-70.9	7	0.02	276
164.3	12802	-49.1	-70.9	6	0.02	275
164.0	12815	-48.9	-70.9	6	0.02	275
159.0	13019	-48.5	-70.5	6	0.02	279
150.0	13400	-50.5	-75.5	4	0.01	285

Question 2:

Cross out the word “environmental.”

Question 5:

Google is your friend.

Question 6:

Third row should be “-30 °C at 300 mb.”

Question 9:

Use the sounding in Figure 6 from above, not Figure 5.

Question 11:

This is a continuation of Question 9. Use Figure 6.

Question 15:

Ignore what’s written in the manual. Use the data provided above from the sounding above to plot the temperature and dew point lines roughly every 50 mb (822, 748, 700, 637, 587, 500, 456, 400, 349.5, 300, 250, 200, 150 mb). Find the LCL, LFC, and EL