

71934 YSM Fort Smith Observations at 12Z 24 Jan 2014

Three crossings of the -10 degree isotherm

PRES hPa	HGHT m	TEMP C	DWPT C	RELH %	MIXR g/kg	DRCT deg	SKNT knot	THTA K	THTE K	THTV K
1000.0	132									
991.0	204	-9.3	-10.7	90	1.71	340	3	264.5	269.3	264.8
978.0	305	-10.1	-11.6	89	1.62	5	10	264.8	269.2	265.0
939.8	610	-12.4	-14.2	87	1.37	10	19	265.4	269.2	265.6
929.0	698	-13.1	-14.9	86	1.30	10	19	265.6	269.2	265.8
925.0	731	-12.9	-15.0	84	1.30	10	19	266.1	269.8	266.3
917.0	797	-12.1	-13.5	89	1.48	10	19	267.6	271.8	267.8
903.2	914	-10.6	-11.8	91	1.73	10	20	270.3	275.2	270.6
895.0	984	-9.7	-10.7	92	1.90	8	21	271.9	277.3	272.2
894.0	992	-9.9	-10.8	93	1.89	7	21	271.8	277.2	272.1
873.0	1176	-7.7	-8.5	94	2.32	1	23	275.9	282.6	276.3
868.2	1219	-8.0	-9.0	93	2.24	0	24	276.1	282.5	276.4
867.0	1230	-8.1	-9.1	93	2.22	359	24	276.1	282.5	276.4
850.0	1384	-7.5	-7.8	98	2.51	340	25	278.3	285.5	278.7
835.0	1523	-6.7	-7.0	98	2.72	335	26	280.5	288.4	281.0
834.9	1524	-6.7	-7.0	98	2.72	335	26	280.5	288.4	281.0
802.8	1829	-7.8	-8.0	98	2.61	330	35	282.6	290.2	283.0
771.9	2134	-8.8	-9.0	98	2.51	330	38	284.6	292.0	285.1
764.0	2214	-9.1	-9.3	98	2.49	329	42	285.2	292.5	285.6
742.3	2438	-8.4	-8.6	98	2.71	325	55	288.3	296.4	288.8
729.0	2579	-7.9	-8.1	98	2.86	325	62	290.3	298.9	290.8
713.7	2743	-8.3	-8.7	97	2.78	325	70	291.6	300.0	292.1
700.0	2894	-8.7	-9.3	95	2.71	325	72	292.8	301.1	293.3
686.2	3048	-9.3	-10.8	89	2.46	325	76	293.8	301.4	294.3
668.0	3256	-10.1	-12.8	81	2.15	325	74	295.2	301.9	295.6
659.6	3353	-11.0	-14.4	76	1.92	325	73	295.2	301.2	295.5
652.0	3442	-11.9	-15.8	73	1.72	325	73	295.2	300.6	295.5
633.8	3658	-13.2	-15.9	80	1.75	325	74	296.1	301.6	296.4
601.0	4062	-15.7	-16.2	96	1.81	322	75	297.8	303.5	298.1
584.8	4267	-17.9	-19.8	85	1.37	320	75	297.5	301.9	297.8
582.0	4303	-18.3	-20.4	84	1.30	320	76	297.5	301.7	297.7
575.0	4393	-19.3	-24.0	66	0.96	321	79	297.3	300.5	297.5
572.0	4432	-19.7	-30.7	37	0.52	321	80	297.3	299.1	297.4
561.0	4576	-20.9	-36.9	22	0.29	323	84	297.6	298.6	297.6
554.0	4668	-21.7	-35.7	27	0.33	323	87	297.7	298.8	297.7
538.5	4877	-22.5	-35.7	29	0.34	325	93	299.1	300.3	299.2
535.0	4925	-22.7	-35.7	30	0.34	325	95	299.5	300.7	299.5
530.0	4994	-22.5	-31.5	44	0.52	324	97	300.5	302.3	300.6
521.0	5119	-23.5	-38.5	24	0.26	323	102	300.8	301.7	300.8
515.0	5204	-23.9	-34.9	36	0.39	322	105	301.3	302.6	301.4
507.0	5318	-23.7	-30.7	53	0.59	321	109	302.9	304.9	303.0
500.0	5420	-23.7	-29.7	58	0.66	320	113	304.1	306.4	304.2
495.5	5486	-23.7	-29.7	58	0.66	320	115	304.9	307.2	305.0
494.0	5508	-23.7	-29.7	58	0.66	320	115	305.1	307.4	305.3
492.0	5538	-23.7	-28.7	63	0.73	320	115	305.5	308.0	305.6
486.0	5628	-24.5	-31.5	52	0.57	320	115	305.6	307.6	305.7
481.0	5703	-24.5	-30.5	58	0.63	320	116	306.5	308.7	306.6
476.0	5779	-25.1	-36.1	35	0.37	320	116	306.7	308.0	306.7
461.0	6012	-25.9	-32.9	52	0.52	320	117	308.5	310.3	308.6
455.6	6096	-26.3	-35.0	44	0.43	320	117	309.0	310.5	309.1
439.0	6365	-27.7	-41.7	25	0.23	320	123	310.5	311.4	310.6

422.0	6648	-28.5	-39.5	34	0.30	320	129	313.0	314.1	313.1
400.0	7030	-31.7	-38.7	50	0.34	320	137	313.7	315.0	313.8
367.6	7620	-36.9	-41.8	60	0.27	325	140	314.5	315.5	314.5
358.0	7804	-38.5	-42.8	64	0.25	325	142	314.7	315.6	314.7
332.0	8320	-41.5	-46.5	58	0.18	325	148	317.4	318.1	317.5
300.0	9000	-46.9	-50.6	66	0.12	325	156	319.1	319.6	319.2
297.0	9066	-47.5	-50.9	68	0.12	325	158	319.2	319.7	319.2
293.5	9144	-48.0	-51.5	68	0.11	325	160	319.5	320.0	319.6
262.0	9881	-53.1	-56.8	64	0.07	329	170	322.6	322.9	322.7
254.8	10058	-54.5	-59.0	58	0.05	330	173	323.1	323.3	323.1
251.0	10155	-55.3	-60.2	54	0.05	330	173	323.4	323.6	323.4
250.0	10180	-55.5	-60.5	54	0.04	330	172	323.4	323.6	323.4
233.0	10629	-56.5	-66.5	27	0.02	330	150	328.5	328.6	328.5
231.6	10668	-56.7	-66.8	27	0.02	330	148	328.8	328.9	328.8
220.6	10973	-58.3	-69.6	22	0.01	320	143	330.9	330.9	330.9
214.0	11166	-59.3	-71.3	20	0.01	320	146	332.2	332.3	332.2
210.2	11278	-59.8	-71.8	19	0.01	320	148	333.2	333.2	333.2
206.0	11404	-60.3	-72.3	19	0.01	320	146	334.3	334.3	334.3
200.0	11590	-57.5	-72.5	13	0.01	325	132	341.6	341.6	341.6
196.0	11718	-56.5	-74.5	9	0.01	326	128	345.1	345.2	345.1
194.0	11783	-52.5	-72.5	7	0.01	327	126	352.5	352.6	352.5
191.0	11884	-50.5	-71.5	7	0.01	328	123	357.3	357.4	357.3
184.0	12127	-51.5	-74.5	5	0.01	331	117	359.5	359.6	359.5
178.0	12342	-50.3	-73.3	5	0.01	333	110	364.9	365.0	364.9
173.8	12497	-51.4	-74.9	4	0.01	335	106	365.7	365.7	365.7
165.8	12802	-53.4	-78.2	3	0.01	325	88	367.2	367.2	367.2
164.0	12872	-53.9	-78.9	3	0.00	325	88	367.5	367.5	367.5
161.0	12991	-51.9	-75.9	4	0.01	325	87	372.8	372.9	372.8
155.0	13237	-51.5	-75.5	4	0.01	325	85	377.6	377.6	377.6
150.9	13411	-50.7	-74.7	4	0.01	325	84	381.9	381.9	381.9
150.0	13450	-50.5	-74.5	4	0.01	325	85	382.9	382.9	382.9
142.0	13809	-48.7	-73.7	4	0.01	325	89	392.0	392.1	392.0
131.2	14326	-50.2	-74.5	4	0.01	325	94	398.4	398.5	398.4
119.4	14935	-51.9	-75.5	4	0.01	335	70	406.0	406.1	406.0
114.0	15240	-52.8	-75.9	4	0.01	330	74	409.9	409.9	409.9
112.0	15353	-53.1	-76.1	4	0.01	331	75	411.3	411.4	411.3
109.0	15529	-50.7	-75.7	4	0.01	332	76	419.0	419.1	419.0
106.0	15711	-50.3	-75.3	4	0.01	333	77	423.1	423.2	423.2
100.0	16090	-51.3	-76.3	4	0.01	335	79	428.3	428.4	428.3
99.0	16154	-51.4	-76.3	4	0.01	335	79	429.4	429.4	429.4
94.5	16459	-51.8	-76.1	4	0.01	335	62	434.3	434.4	434.3
86.1	17061	-52.7	-75.7	5	0.02	325	63	444.2	444.3	444.2
86.0	17069	-52.7	-75.7	5	0.02	325	63	444.4	444.5	444.4
78.3	17678	-52.5	-76.0	4	0.02	340	63	456.9	457.0	456.9
72.0	18218	-52.4	-76.2	4	0.02	335	70	468.2	468.4	468.2
71.2	18288	-52.3	-76.2	4	0.02	335	70	469.7	469.9	469.7
70.0	18400	-52.3	-76.3	4	0.02	340	63	472.1	472.3	472.1
65.4	18837	-54.1	-79.1	3	0.01	340	52	477.5	477.6	477.5
64.8	18898	-54.0	-79.0	3	0.01	340	50	479.0	479.1	479.0
59.0	19507	-52.8	-77.4	4	0.02	345	52	494.8	494.9	494.8
56.2	19812	-52.2	-76.6	4	0.02	330	59	502.9	503.0	502.9
51.2	20422	-51.0	-75.1	4	0.03	335	64	519.5	519.7	519.5
50.0	20570	-50.7	-74.7	4	0.03	340	62	523.5	523.8	523.6
44.5	21336	-48.9	-72.9	4	0.04	340	61	545.6	546.0	545.6
42.5	21641	-48.2	-72.2	5	0.05	345	58	554.6	555.0	554.6
39.5	22119	-47.1	-71.1	5	0.07	333	44	569.1	569.6	569.1
38.7	22250	-47.7	-71.7	5	0.06	330	40	570.9	571.4	570.9
36.0	22730	-49.7	-73.7	4	0.05	335	42	577.6	578.1	577.7

30.7	23774	-51.1	-74.2	5	0.05	345	42	600.9	601.3	600.9
30.0	23920	-51.3	-74.3	5	0.05	340	44	604.2	604.6	604.2
27.9	24384	-51.8	-74.8	5	0.05	330	47	615.3	615.8	615.4
25.9	24871	-52.3	-75.3	5	0.05	332	49	627.2	627.7	627.3
23.1	25603	-49.9	-73.3	5	0.08	335	52	654.8	655.5	654.8
21.1	26213	-47.9	-71.6	5	0.11	350	59	678.6	679.7	678.6
20.1	26518	-46.8	-70.8	5	0.13	0	48	690.8	692.1	690.8
20.0	26560	-46.7	-70.7	5	0.14	355	48	692.5	693.8	692.5
17.9	27302	-43.5	-69.5	4	0.18	338	39	724.9	726.7	724.9
17.6	27432	-44.0	-69.9	4	0.18	335	37	727.2	729.0	727.3
16.8	27737	-45.3	-70.9	4	0.16	325	31	732.8	734.4	732.8
16.0	28042	-46.6	-71.8	4	0.15	335	29	738.3	739.9	738.4
15.3	28346	-47.9	-72.8	4	0.13	345	34	743.9	745.3	744.0
14.6	28651	-49.1	-73.8	4	0.12	335	35	749.5	750.8	749.6
13.3	29267	-51.7	-75.7	4	0.10	343	41	760.9	762.0	760.9
11.6	30175	-49.4	-76.8	3	0.10	355	50	799.9	801.0	799.9
11.1	30480	-48.6	-77.1	2	0.10	0	44	813.4	814.5	813.4
10.0	31140	-46.9	-77.9	2	0.09	355	44	843.4	844.5	843.4
9.8	31274	-47.3	-77.3	2	0.10	358	46	846.8	848.0	846.8
9.6	31394	-46.1	-76.5	2	0.12	0	47	855.5	857.0	855.6
9.3	31624	-43.9	-74.9	2	0.16	0	46	872.5	874.5	872.5
8.0	32614	-47.7	-77.9	2	0.12	0	39	895.3	896.9	895.4
7.7	32881	-48.7	-78.7	2	0.11	356	45	901.5	903.0	901.6
7.3	33223	-48.0	-79.7	1	0.10	350	52	917.6	919.0	917.7
7.0	33528	-47.4	-80.4	1	0.09	0	46	932.4	933.7	932.5
7.0	33510	-47.5	-80.5	1	0.09	355	47	931.4	932.6	931.4
6.4	34138	-44.7	-76.2	2	0.19	350	44	968.7	971.4	968.8
6.2	34318	-43.9	-74.9	2	0.24			979.6	983.0	979.8

Station information and sounding indices

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Station identifier: YSM
Station number: 71934
Observation time: 140124/1200
Station latitude: 60.03
Station longitude: -111.93
Station elevation: 204.0
Showalter index: 15.93
Lifted index: 28.77
LIFT computed using virtual temperature: 28.86
SWEAT index: 163.00
K index: 7.80
Cross totals index: 15.90
Vertical totals index: 16.20
Totals totals index: 32.10
Convective Available Potential Energy: 0.00
CAPE using virtual temperature: 0.00
Convective Inhibition: 0.00
CINS using virtual temperature: 0.00
Bulk Richardson Number: 0.00
Bulk Richardson Number using CAPV: 0.00
Temp [K] of the Lifted Condensation Level: 260.02
Pres [hPa] of the Lifted Condensation Level: 935.25
Mean mixed layer potential temperature: 265.06
Mean mixed layer mixing ratio: 1.50
1000 hPa to 500 hPa thickness: 5288.00
Precipitable water [mm] for entire sounding: 10.05

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Description of the [data columns](#) or [sounding indices](#).

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Questions about the weather data provided by this site can be addressed to [Larry Oolman \(ldoolman@uwyo.edu\)](mailto:Larry.Oolman@uwyo.edu)
