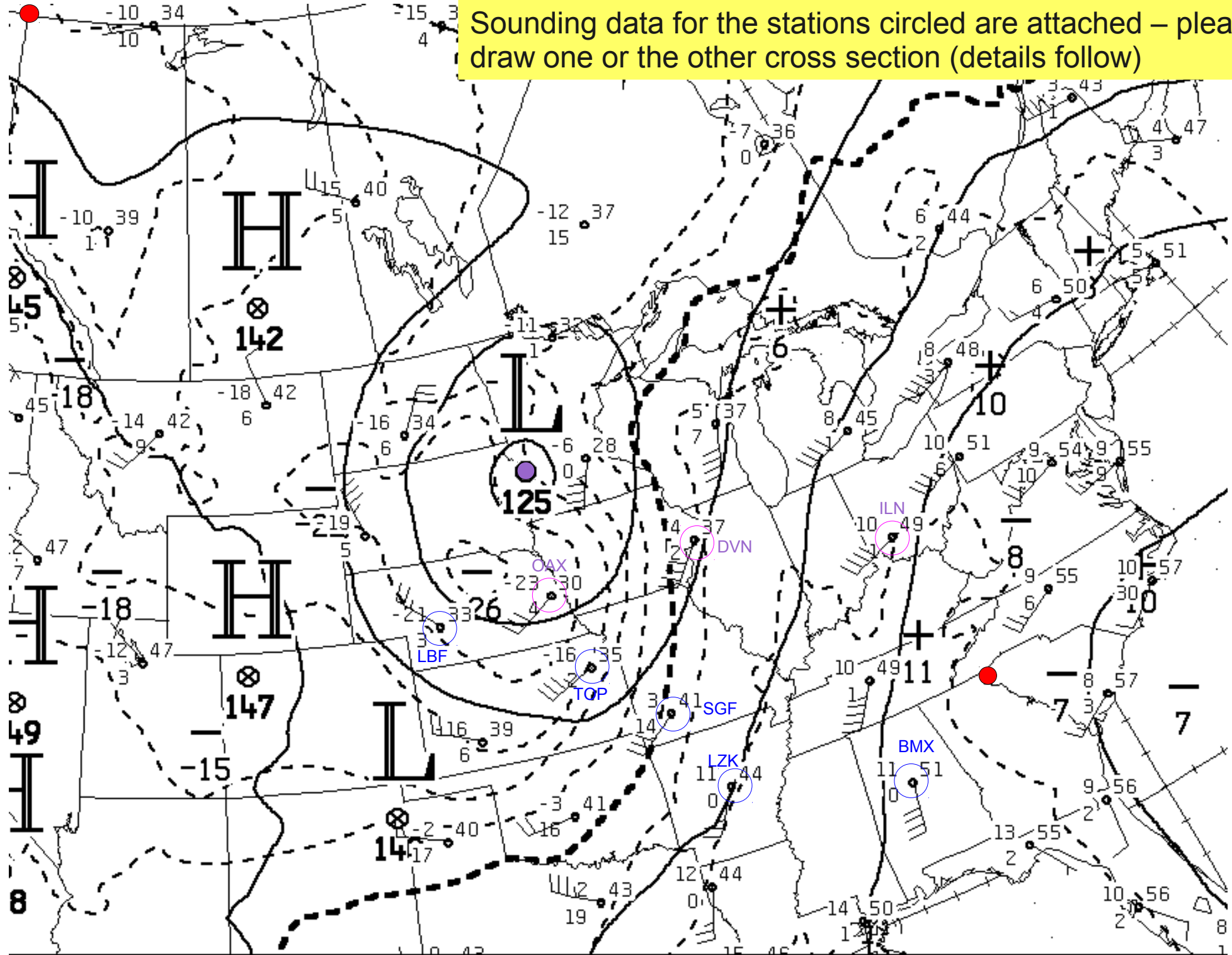


Exercises

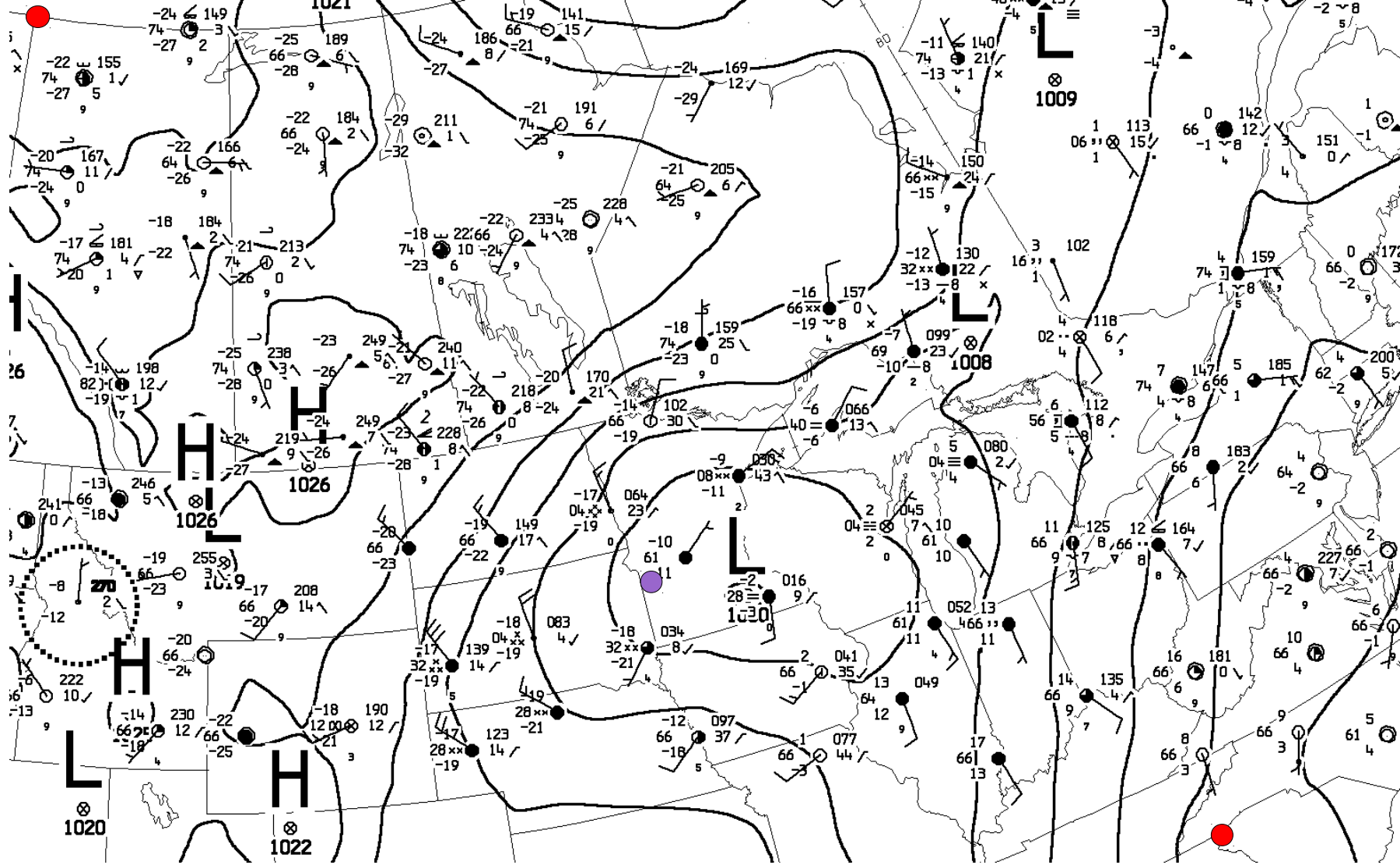
- Identify a front
- Plot a cross-section from soundings
- Compute static stability parameter

Sounding data for the stations circled are attached – please draw one or the other cross section (details follow)



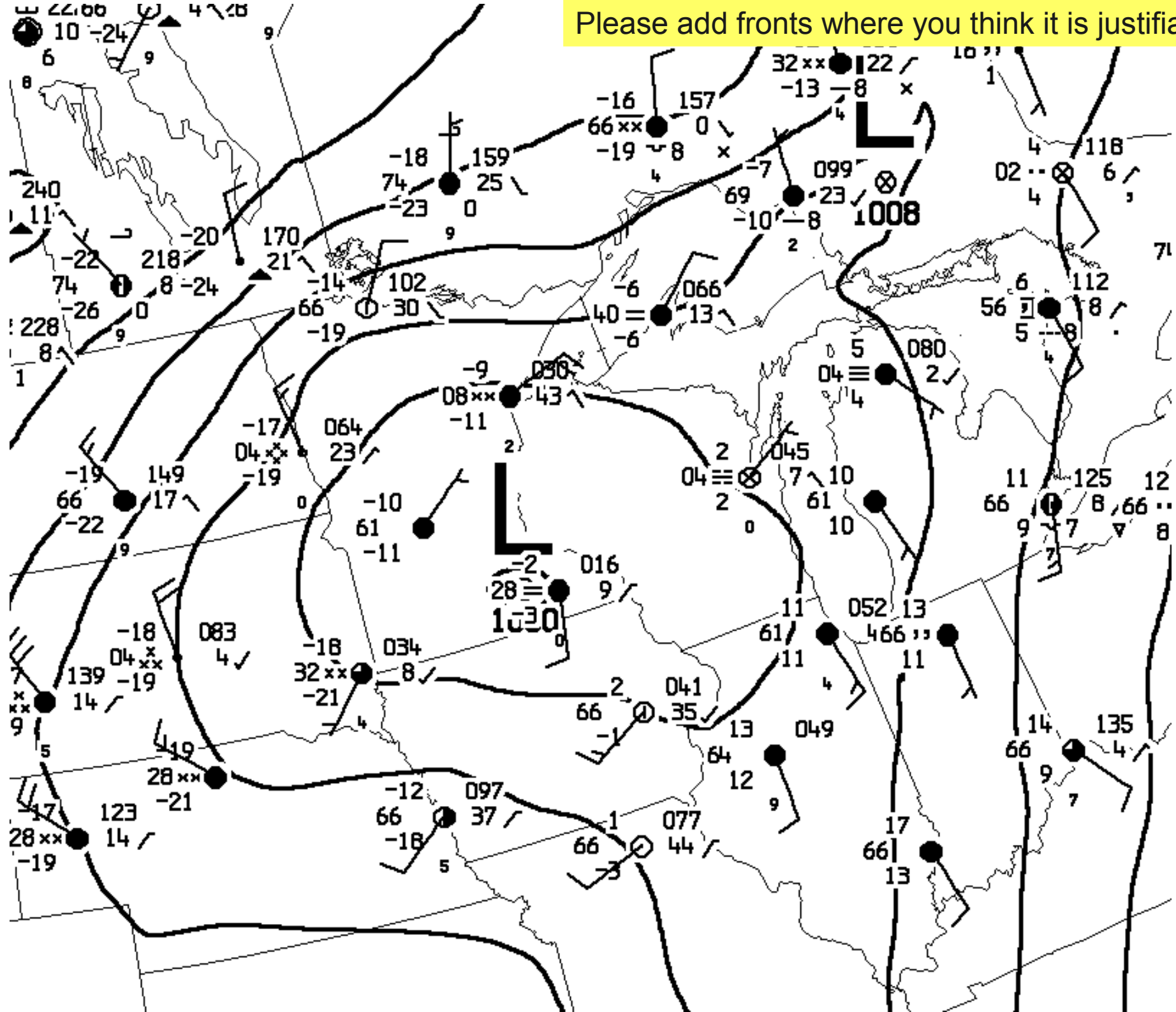
VOOZ SAT-SAM 01 JAN-JAN 11

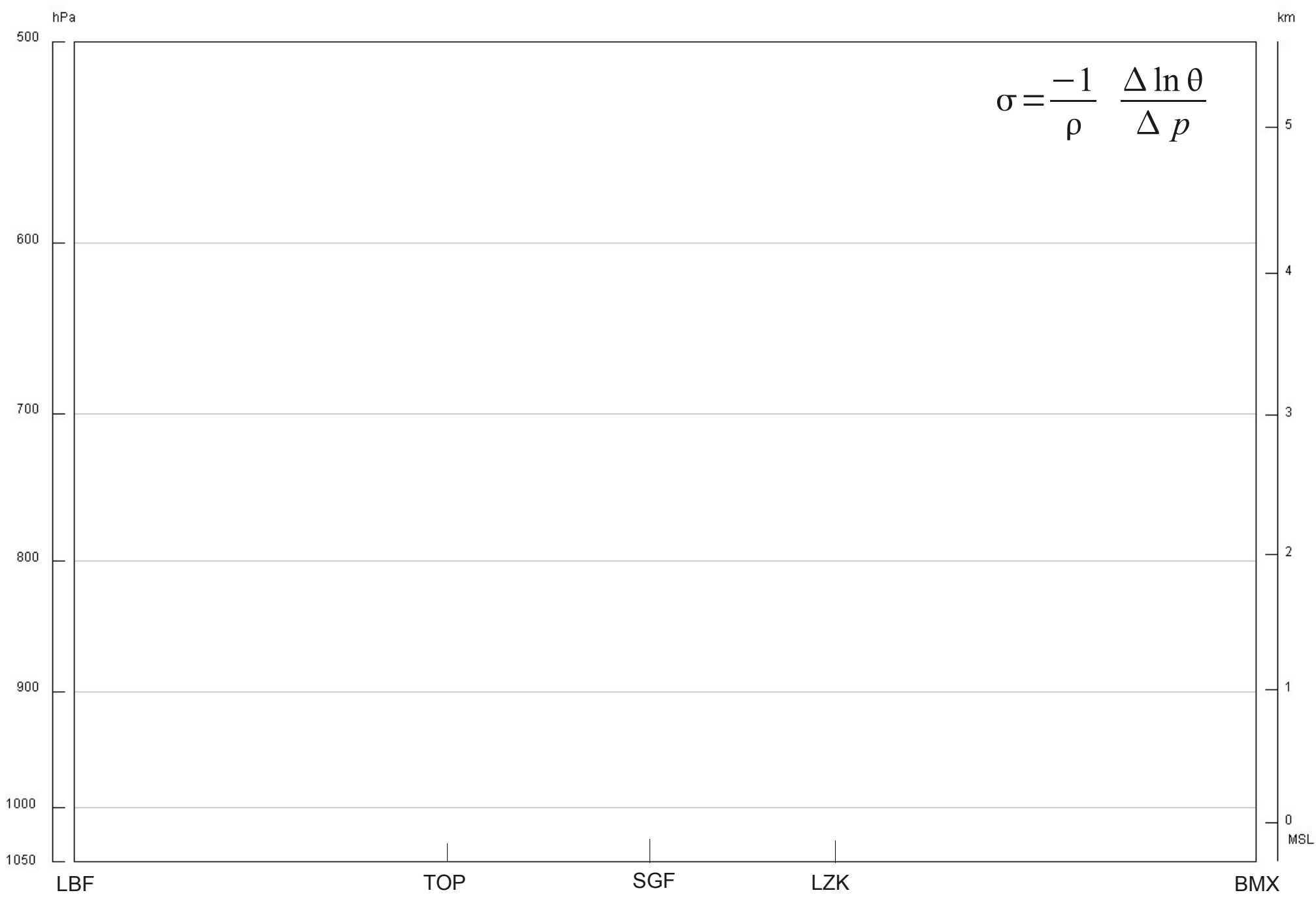
CMC ANALYSIS



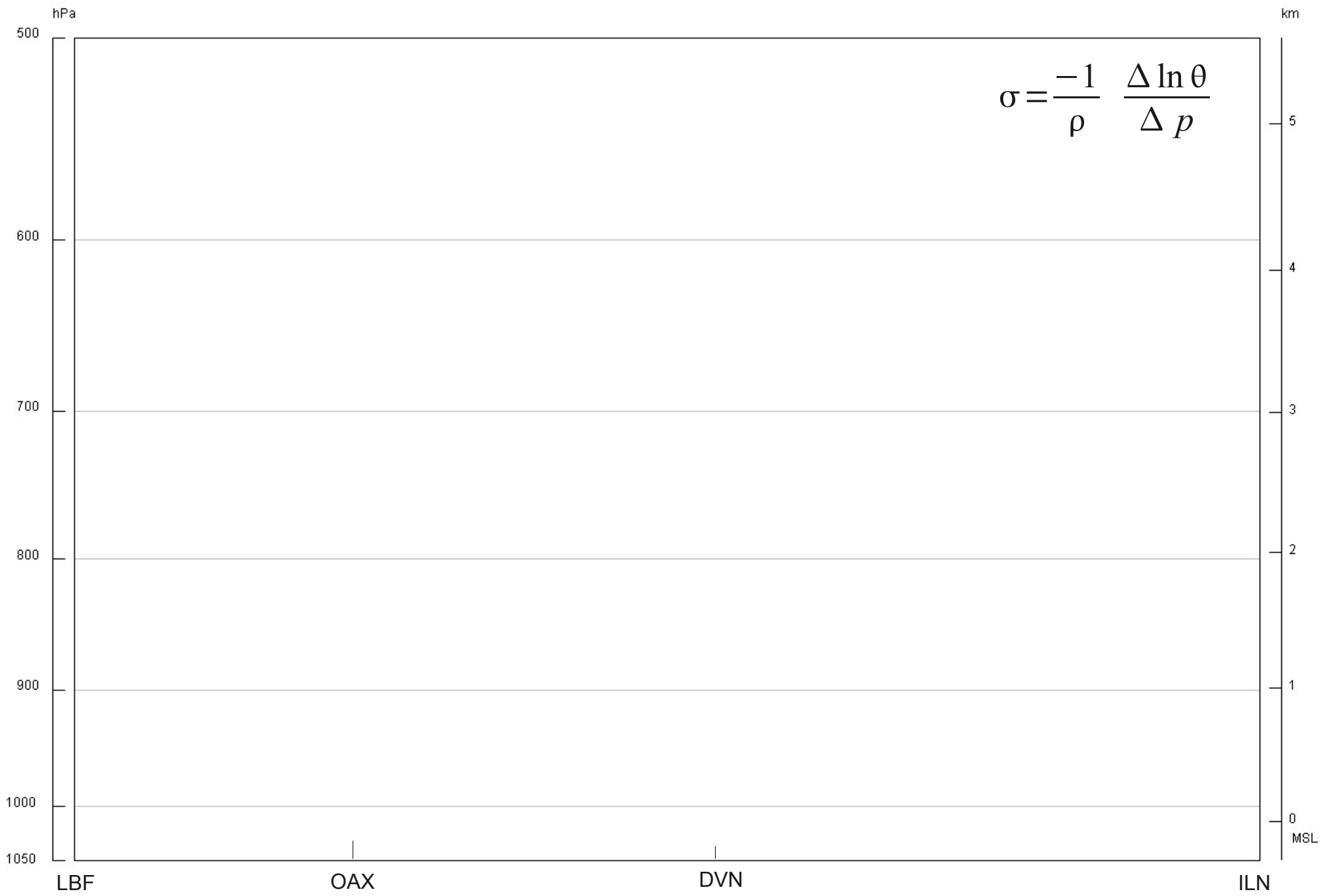
Showing the CMC surface analysis (for 00Z Sat 1 Jan., 2011) on the same scale as the 850 hPa chart – a blow-up of the storm is on the next page

Please add fronts where you think it is justifiable





Using the sounding data for these 5 stations: (i) plot contours of potential temperature at 275, 285, 295, 305 K
(ii) plot wind barbs at 850, 700, 500 hPa for each station
(iii) compute the static stability parameter σ over BMX



Using the sounding data for these 4 stations: (i) plot contours of potential temperature at 275, 285, 295, 305 K
(ii) plot wind barbs at 850, 700, 500 hPa for each station
(iii) compute the static stability parameter σ over ILN

72562 LBF North Platte Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	109									
925.0	702									
907.0	849	-16.1	-18.3	83	1.00	310	9	264.3	267.2	264.5
895.0	949	-17.7	-20.0	82	0.88	307	12	263.7	266.2	263.8
863.2	1219	-19.9	-22.4	80	0.74	300	19	264.1	266.2	264.2
850.0	1334	-20.9	-23.5	80	0.68	310	23	264.2	266.2	264.4
794.2	1829	-25.0	-28.1	76	0.48	310	35	265.0	266.4	265.1
761.6	2134	-27.6	-30.9	73	0.39	320	41	265.4	266.6	265.5
760.0	2149	-27.7	-31.0	73	0.38	320	42	265.5	266.6	265.5
745.0	2293	-25.7	-28.5	77	0.49	320	49	269.2	270.7	269.2
732.0	2421	-25.7	-28.5	77	0.50	320	55	270.5	272.1	270.6
730.2	2438	-25.5	-28.3	78	0.51	320	56	270.9	272.5	271.0
715.0	2591	-23.9	-26.2	81	0.63	320	55	274.3	276.3	274.4
700.3	2743	-24.5	-27.0	80	0.60	320	55	275.3	277.2	275.4
700.0	2746	-24.5	-27.0	80	0.60	320	55	275.3	277.2	275.4
667.0	3096	-26.5	-29.5	76	0.50	314	56	276.9	278.5	277.0
657.0	3206	-23.9	-26.3	81	0.68	312	57	281.0	283.2	281.1
644.0	3352	-21.9	-24.0	83	0.86	310	57	284.9	287.6	285.1
643.9	3353	-21.9	-24.0	83	0.86	310	57	284.9	287.6	285.1
617.7	3658	-22.5	-24.9	81	0.82	310	43	287.6	290.2	287.8
602.0	3847	-22.9	-25.5	79	0.80	312	41	289.3	291.9	289.4
568.2	4267	-25.0	-27.3	82	0.72	315	37	291.6	294.0	291.7
549.0	4517	-26.3	-28.3	83	0.68	299	32	293.0	295.2	293.1
544.9	4572	-26.2	-28.4	81	0.68	295	31	293.8	296.0	293.9
537.0	4677	-25.9	-28.7	77	0.67	290	32	295.3	297.6	295.4
528.0	4799	-26.5	-31.4	63	0.53	284	32	296.0	297.8	296.1
522.3	4877	-27.1	-32.0	63	0.50	280	33	296.3	298.0	296.4
516.0	4965	-27.7	-32.7	62	0.48	280	30	296.5	298.2	296.6
500.6	5182	-29.4	-34.4	62	0.41	280	24	297.0	298.4	297.1
500.0	5190	-29.5	-34.5	62	0.41	285	25	297.0	298.4	297.1

72456 TOP Topeka Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	96									
978.0	270	-5.5	-12.5	58	1.50	245	8	269.4	273.6	269.6
972.0	318	-5.9	-13.9	53	1.35	246	10	269.4	273.3	269.6
940.0	580	-8.5	-15.5	57	1.22	254	21	269.4	272.9	269.6
936.4	610	-8.8	-15.6	58	1.22	255	22	269.4	272.9	269.6
925.0	705	-9.7	-15.7	62	1.22	260	22	269.4	272.9	269.6
900.0	914	-11.6	-16.2	69	1.21	260	23	269.5	273.0	269.7
864.7	1219	-14.5	-16.9	82	1.18	245	31	269.6	273.1	269.8
850.0	1350	-15.7	-17.2	88	1.17	245	33	269.7	273.1	269.9
846.0	1386	-16.1	-17.5	89	1.15	243	37	269.6	273.0	269.8
839.0	1448	-14.3	-16.1	86	1.30	239	44	272.2	276.0	272.4
835.0	1485	-13.3	-17.2	72	1.20	237	49	273.6	277.1	273.8
832.0	1512	-10.9	-18.9	52	1.04	236	52	276.4	279.5	276.6
830.7	1524	-9.8	-18.4	49	1.09	235	53	277.7	281.0	277.9
830.0	1531	-9.1	-18.1	48	1.11	235	53	278.5	281.9	278.7
824.0	1587	-8.3	-18.3	44	1.10	234	53	279.9	283.3	280.1
798.7	1829	-7.9	-18.8	41	1.09	230	52	282.8	286.1	283.0
796.0	1855	-7.9	-18.9	41	1.09	229	53	283.1	286.5	283.3
767.9	2134	-8.7	-21.8	34	0.87	215	63	285.1	287.9	285.3
756.0	2255	-9.1	-23.1	31	0.79	211	64	286.0	288.5	286.2
741.0	2410	-7.9	-23.9	26	0.75	206	65	289.0	291.4	289.1
738.3	2438	-8.1	-24.1	26	0.75	205	65	289.1	291.5	289.2
720.0	2633	-9.1	-25.1	26	0.70	215	68	290.0	292.3	290.2
709.8	2743	-8.4	-24.4	26	0.75	220	69	292.0	294.5	292.1
700.0	2851	-7.7	-23.7	26	0.81	225	76	293.9	296.6	294.1
694.0	2918	-7.5	-23.5	27	0.83	226	78	294.9	297.6	295.0
655.8	3353	-10.5	-25.6	28	0.73	230	89	296.3	298.7	296.4
630.2	3658	-12.7	-27.0	29	0.67	230	94	297.2	299.5	297.4
618.0	3808	-13.7	-27.7	30	0.64	228	97	297.7	299.9	297.8
587.0	4198	-15.3	-29.3	29	0.58	221	106	300.2	302.2	300.4
581.6	4267	-15.9	-29.7	30	0.56	220	108	300.3	302.3	300.4
562.0	4524	-18.1	-31.1	31	0.51	218	110	300.7	302.5	300.8
536.0	4877	-19.0	-32.8	29	0.46	215	112	303.7	305.3	303.8
528.0	4988	-19.3	-33.3	28	0.44	215	113	304.7	306.2	304.8
500.0	5390	-22.5	-35.5	30	0.37	215	117	305.6	306.9	305.6

72440 SGF Springfield Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	74									
963.0	387	8.0	-6.0	36	2.55	275	13	284.2	291.7	284.6
959.0	422	7.8	-9.2	29	2.00	273	15	284.3	290.3	284.7
937.6	610	6.4	-10.6	28	1.83	265	29	284.8	290.3	285.1
937.0	615	6.4	-10.6	28	1.83	265	29	284.8	290.3	285.1
925.0	722	5.4	-11.6	28	1.71	265	29	284.8	290.0	285.1
903.4	914	4.0	-11.1	32	1.82	265	23	285.3	290.8	285.6
879.0	1136	2.4	-10.6	38	1.95	243	23	285.9	291.8	286.2
870.0	1219	2.6	-9.6	40	2.13	235	23	286.9	293.3	287.3
857.0	1341	2.8	-8.2	44	2.41	232	27	288.4	295.7	288.8
850.0	1407	3.2	-10.8	35	1.98	230	29	289.5	295.6	289.8
830.0	1600	3.2	-30.8	6	0.36	235	42	291.5	292.7	291.5
823.0	1668	3.8	-41.2	2	0.13	236	46	292.8	293.3	292.8
815.0	1748	4.6	-23.4	11	0.72	238	52	294.5	296.9	294.6
811.0	1788	4.6	-11.4	30	1.98	239	54	294.9	301.1	295.2
806.9	1829	4.6	-8.7	38	2.47	240	57	295.3	303.0	295.8
805.0	1848	4.6	-7.4	41	2.74	239	57	295.5	303.9	296.0
777.0	2134	2.3	-6.8	51	2.98	230	55	296.1	305.2	296.6
748.4	2438	-0.1	-6.1	64	3.25	220	54	296.7	306.6	297.2
748.0	2442	-0.1	-6.1	64	3.26	220	54	296.7	306.6	297.2
722.0	2725	-0.9	-6.9	64	3.17	211	57	298.8	308.6	299.4
720.4	2743	-1.1	-7.0	64	3.16	210	57	298.8	308.6	299.4
700.0	2971	-3.1	-8.1	68	2.98	215	59	299.0	308.3	299.6
641.3	3658	-8.8	-12.9	72	2.22	220	64	300.2	307.2	300.6
640.0	3674	-8.9	-13.0	72	2.21	220	64	300.2	307.2	300.6
617.0	3957	-10.1	-14.9	68	1.96	213	72	302.0	308.3	302.3
601.0	4160	-9.1	-21.1	37	1.19	208	77	305.4	309.4	305.6
592.8	4267	-9.9	-21.9	37	1.12	205	80	305.6	309.4	305.9
585.0	4369	-10.7	-22.7	37	1.06	205	84	305.9	309.5	306.1
575.0	4501	-11.5	-20.5	47	1.31	205	88	306.5	310.9	306.7
570.0	4568	-11.5	-24.5	33	0.93	205	91	307.2	310.4	307.4
569.7	4572	-11.5	-24.6	33	0.92	205	91	307.2	310.4	307.4
563.0	4663	-12.1	-27.1	28	0.74	205	91	307.6	310.2	307.8
547.4	4877	-13.5	-30.0	24	0.58	205	92	308.4	310.4	308.5
531.0	5109	-15.1	-33.1	20	0.45	205	93	309.2	310.8	309.3
505.0	5486	-18.7	-34.7	23	0.40	205	95	309.3	310.8	309.4
500.0	5560	-19.1	-35.1	23	0.39	205	95	309.7	311.1	309.8

72340 LZK North Little Rock Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	69									
988.0	172	13.6	7.6	67	6.67	315	6	287.7	306.8	288.9
972.0	309	12.6	4.6	58	5.50	310	13	288.1	303.9	289.0
942.0	572	12.6	-5.4	28	2.73	301	25	290.7	298.9	291.1
937.7	610	13.4	-4.5	28	2.92	300	27	291.9	300.8	292.4
935.0	634	14.0	-4.0	28	3.05	297	26	292.7	302.0	293.3
925.0	725	14.6	-1.4	33	3.75	285	23	294.2	305.5	294.9
924.0	734	14.6	-1.4	33	3.75	284	23	294.3	305.6	295.0
911.0	853	13.6	-1.4	35	3.81	265	20	294.5	306.0	295.2
906.0	900	13.4	2.4	47	5.05	257	19	294.8	309.8	295.6
905.0	909	13.4	5.4	58	6.25	256	19	294.8	313.3	295.9
904.5	914	13.4	5.7	60	6.37	255	19	294.9	313.6	296.0
897.0	984	13.2	9.4	78	8.32	246	20	295.4	319.7	296.9
872.2	1219	11.8	11.0	95	9.53	215	23	296.3	324.1	298.0
866.0	1279	11.4	11.4	100	9.87	214	24	296.5	325.3	298.2
850.0	1435	10.8	10.8	100	9.66	210	26	297.4	325.7	299.2
810.4	1829	8.5	8.4	100	8.60	215	33	299.0	324.5	300.6
781.0	2134	6.7	6.5	99	7.84	210	35	300.3	323.7	301.7
752.8	2438	4.8	4.7	99	7.15	215	43	301.5	323.0	302.8
740.0	2580	4.0	3.8	99	6.84	215	45	302.1	322.7	303.3
725.2	2743	3.0	2.3	95	6.26	215	48	302.7	321.7	303.8
700.0	3030	1.2	-0.4	89	5.34	215	51	303.8	320.2	304.8
692.0	3123	1.0	-1.3	85	5.05	216	52	304.6	320.2	305.5
667.0	3418	-1.5	-2.7	92	4.73	221	55	305.0	319.7	305.8
651.0	3612	-2.7	-4.9	85	4.10	224	57	305.7	318.6	306.5
647.2	3658	-3.2	-5.1	87	4.07	225	58	305.7	318.5	306.5
633.0	3834	-4.9	-5.7	94	3.97	224	62	305.7	318.2	306.4
625.0	3934	-4.7	-6.3	89	3.84	223	65	307.0	319.2	307.8
619.0	4010	-4.5	-10.5	63	2.79	222	67	308.1	317.1	308.6
608.0	4152	-4.5	-17.5	36	1.60	221	70	309.7	315.1	310.0
599.2	4267	-5.3	-20.7	29	1.23	220	73	310.1	314.3	310.3
597.0	4296	-5.5	-21.5	27	1.16	220	73	310.1	314.1	310.4
576.1	4572	-7.8	-23.8	26	0.98	220	76	310.6	314.0	310.8
553.9	4877	-10.3	-26.3	26	0.81	220	77	311.1	314.0	311.3
534.0	5160	-12.7	-28.7	25	0.67	218	74	311.6	314.0	311.7
527.0	5261	-13.5	-35.5	14	0.35	218	73	311.8	313.1	311.9
500.0	5660	-15.1	-55.1	2	0.04	215	69	314.6	314.8	314.6

72230 BMX Shelby County Airport Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	131									
995.0	178	20.0	12.0	60	8.93	140	5	293.6	319.4	295.1
980.2	305	18.9	11.9	64	9.00	145	23	293.7	319.8	295.3
945.7	610	16.2	11.7	74	9.18	150	27	294.0	320.6	295.7
925.0	798	14.6	11.5	82	9.29	155	30	294.2	321.1	295.9
912.3	914	13.8	11.4	85	9.34	155	32	294.5	321.6	296.2
880.0	1218	11.6	11.0	96	9.45	165	38	295.3	322.8	297.0
879.9	1219	11.6	11.0	96	9.45	165	38	295.4	322.8	297.0
855.0	1459	10.8	10.6	99	9.47	186	40	296.9	324.6	298.6
850.0	1508	10.8	10.7	99	9.59	190	40	297.4	325.6	299.2
839.0	1617	11.2	11.2	100	10.05	195	43	299.0	328.6	300.8
818.0	1829	10.0	9.7	98	9.33	205	48	299.8	327.5	301.5
812.0	1890	9.6	9.3	98	9.13	205	48	300.1	327.2	301.7
810.0	1911	9.4	8.3	93	8.55	205	49	300.1	325.5	301.6
806.0	1952	9.4	3.4	66	6.10	205	49	300.5	318.9	301.6
800.0	2014	9.0	1.0	57	5.17	205	49	300.7	316.5	301.7
788.4	2134	8.6	0.6	57	5.08	205	50	301.5	317.1	302.4
763.0	2405	7.6	-0.4	57	4.89	196	48	303.3	318.4	304.2
759.9	2438	7.3	-0.5	58	4.89	195	48	303.4	318.5	304.3
732.0	2743	4.8	-1.1	65	4.84	200	48	303.9	318.9	304.8
700.0	3108	1.8	-1.9	76	4.78	195	44	304.4	319.3	305.3
687.0	3259	0.8	-2.1	81	4.80	192	41	305.0	319.9	305.9
679.0	3353	0.5	-2.2	82	4.82	190	39	305.6	320.6	306.5
672.0	3436	0.2	-2.3	83	4.83	193	39	306.2	321.3	307.1
661.0	3569	0.4	-4.6	69	4.13	197	39	307.9	321.0	308.7
653.7	3658	0.0	-5.9	64	3.79	200	39	308.4	320.5	309.1
637.0	3865	-0.9	-8.9	55	3.08	207	36	309.7	319.7	310.3
614.0	4157	-3.1	-11.1	54	2.68	216	32	310.4	319.2	310.9
605.5	4267	-3.5	-15.2	40	1.94	220	30	311.2	317.7	311.6
605.0	4274	-3.5	-15.5	39	1.90	220	30	311.3	317.7	311.6
594.0	4418	-4.5	-16.5	39	1.78	225	35	311.8	317.8	312.1
591.0	4458	-4.7	-16.7	39	1.76	226	37	312.0	317.9	312.3
590.0	4471	-4.7	-13.7	49	2.26	227	37	312.1	319.7	312.6
588.0	4498	-4.9	-12.9	53	2.42	228	38	312.2	320.2	312.7
587.0	4512	-4.9	-9.9	68	3.09	228	39	312.4	322.5	312.9
586.0	4525	-5.1	-10.1	68	3.04	228	39	312.3	322.2	312.9
582.5	4572	-5.5	-11.3	64	2.78	230	41	312.3	321.5	312.9
569.0	4755	-7.1	-16.1	49	1.92	242	36	312.6	319.0	312.9
567.0	4783	-7.5	-15.5	53	2.03	244	35	312.4	319.2	312.8
566.0	4797	-7.7	-13.7	62	2.36	245	34	312.3	320.2	312.8
560.1	4877	-8.5	-13.8	66	2.36	250	32	312.3	320.2	312.8
547.0	5061	-10.3	-14.0	74	2.38	247	35	312.3	320.2	312.8
533.0	5260	-10.5	-11.9	89	2.90	243	38	314.4	324.0	314.9
500.0	5750	-13.1	-14.7	88	2.46	235	46	317.0	325.3	317.5

72558 OAX Omaha Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	80									
965.0	350	-13.3	-18.0	68	0.97	240	17	262.5	265.2	262.7
961.0	382	-14.1	-19.0	66	0.89	240	18	262.0	264.6	262.1
932.7	610	-16.2	-23.1	55	0.65	240	26	262.1	264.0	262.2
931.0	624	-16.3	-23.3	55	0.63	240	26	262.1	264.0	262.2
925.0	673	-16.7	-22.7	60	0.67	240	27	262.2	264.2	262.3
895.6	914	-19.1	-24.2	64	0.60	235	31	262.2	264.0	262.3
878.0	1062	-20.5	-25.2	66	0.57	235	31	262.2	263.9	262.3
859.5	1219	-21.8	-26.1	68	0.53	235	32	262.4	264.0	262.5
850.0	1301	-22.5	-26.6	69	0.51	235	32	262.6	264.1	262.6
824.5	1524	-24.0	-27.7	72	0.48	245	41	263.2	264.7	263.3
820.0	1564	-24.3	-27.9	72	0.47	242	40	263.4	264.8	263.4
812.0	1635	-23.9	-27.6	71	0.49	236	38	264.5	266.0	264.6
799.0	1754	-21.3	-25.0	72	0.63	226	35	268.5	270.4	268.6
790.9	1829	-20.5	-24.6	70	0.66	220	33	270.2	272.2	270.3
774.0	1990	-18.7	-23.7	65	0.73	217	45	273.8	276.0	273.9
767.0	2058	-16.5	-23.5	55	0.75	216	50	276.9	279.2	277.0
759.3	2134	-16.0	-23.6	52	0.75	215	55	278.2	280.5	278.3
743.0	2297	-14.9	-23.9	46	0.75	212	59	281.1	283.5	281.2
733.0	2400	-12.3	-22.3	43	0.88	211	61	285.1	287.8	285.2
729.4	2438	-12.0	-23.4	38	0.80	210	62	285.8	288.3	285.9
728.0	2453	-11.9	-23.9	36	0.77	210	62	286.1	288.5	286.2
706.0	2687	-13.1	-27.1	30	0.59	210	66	287.2	289.2	287.4
700.8	2743	-13.6	-27.6	30	0.57	210	67	287.3	289.1	287.4
700.0	2752	-13.7	-27.7	30	0.56	210	68	287.3	289.1	287.4
660.0	3195	-17.7	-29.7	34	0.50	215	70	287.6	289.3	287.7
620.0	3658	-20.6	-32.6	33	0.40	220	72	289.5	290.9	289.6
605.0	3839	-21.7	-33.7	33	0.37	223	71	290.3	291.5	290.3
595.0	3962	-22.1	-36.1	27	0.30	225	70	291.2	292.2	291.2
595.0	3962	-22.1	-36.1	27	0.30	225	70	291.2	292.2	291.2
570.5	4267	-24.7	-39.9	23	0.21	210	67	291.7	292.4	291.7
554.0	4481	-26.5	-42.5	21	0.16	213	71	292.0	292.6	292.0
524.4	4877	-26.8	-45.3	16	0.13	220	79	296.2	296.7	296.2
518.0	4965	-26.9	-45.9	15	0.12	219	84	297.2	297.6	297.2
502.6	5182	-25.7	-45.6	14	0.13	215	95	301.2	301.7	301.2
500.0	5220	-25.5	-45.5	14	0.13	215	93	301.9	302.4	301.9

74455 DVN Davenport Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	25									
975.0	229	10.4	8.7	89	7.29	200	6	285.6	306.1	286.9
974.0	238	11.4	8.2	81	7.05	200	6	286.7	306.6	287.9
973.0	246	11.6	7.3	75	6.63	200	7	287.0	305.8	288.1
970.0	273	11.8	8.4	80	7.18	200	8	287.4	307.8	288.7
958.0	378	11.4	9.4	88	7.78	200	14	288.1	310.1	289.4
937.0	565	10.8	9.0	89	7.74	200	24	289.3	311.4	290.6
932.0	610	10.5	8.6	88	7.59	200	26	289.4	311.0	290.7
925.0	674	10.0	8.1	88	7.38	215	30	289.5	310.6	290.8
914.0	773	9.0	7.3	89	7.06	219	31	289.5	309.7	290.7
900.0	901	8.2	4.7	79	5.98	224	32	289.9	307.2	291.0
898.6	914	8.1	4.7	79	5.97	225	32	289.9	307.2	291.0
865.8	1219	5.2	3.6	90	5.77	220	36	290.0	306.7	291.0
855.0	1322	4.2	3.3	94	5.70	220	37	290.1	306.6	291.1
850.0	1370	4.0	2.2	88	5.30	220	38	290.3	305.8	291.2
836.0	1505	3.2	1.2	87	5.02	220	43	290.9	305.5	291.7
813.0	1732	4.4	-10.6	33	2.11	220	52	294.5	301.0	294.8
803.3	1829	4.6	-16.3	20	1.34	220	56	295.7	300.0	295.9
795.0	1914	4.8	-21.2	13	0.89	221	58	296.8	299.7	296.9
789.0	1976	4.6	-20.4	14	0.96	222	60	297.2	300.4	297.4
773.7	2134	3.6	-17.8	19	1.22	225	64	297.8	301.8	298.0
755.0	2333	2.4	-14.6	27	1.64	225	67	298.6	303.9	298.9
745.1	2438	1.4	-14.6	29	1.67	225	69	298.6	304.0	298.9
717.2	2743	-1.5	-14.4	37	1.76	225	67	298.8	304.4	299.1
700.0	2937	-3.3	-14.3	42	1.81	220	63	298.8	304.6	299.1
696.0	2982	-3.7	-13.7	46	1.92	219	63	298.9	305.0	299.2
650.0	3517	-7.3	-15.3	53	1.80	212	63	300.7	306.5	301.0
638.3	3658	-7.7	-16.3	50	1.69	210	63	301.8	307.3	302.1
612.0	3985	-8.5	-18.5	44	1.46	213	77	304.5	309.4	304.8
590.0	4267	-10.5	-17.1	58	1.70	215	90	305.4	310.9	305.7
586.0	4319	-10.9	-16.9	61	1.75	215	91	305.5	311.3	305.8
576.0	4451	-10.9	-23.9	33	0.97	215	94	307.0	310.3	307.2
564.0	4612	-12.1	-22.1	43	1.16	215	97	307.5	311.4	307.7
544.6	4877	-14.1	-26.1	36	0.84	215	103	308.2	311.1	308.3
535.0	5013	-15.1	-28.1	32	0.71	214	102	308.5	311.0	308.7
528.0	5112	-15.7	-33.7	20	0.42	213	101	309.0	310.5	309.1
511.0	5358	-16.9	-36.9	16	0.32	211	99	310.4	311.6	310.5
500.0	5520	-18.3	-39.3	14	0.25	210	98	310.7	311.6	310.7

72426 ILN Wilmington Observations at 00Z 01 Jan 2011

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1000.0	126									
977.0	317	14.8	10.0	73	7.95	180	7	289.9	312.6	291.3
958.0	485	14.8	8.8	67	7.47	183	18	291.5	313.0	292.8
944.1	610	13.9	7.1	63	6.73	185	26	291.8	311.4	293.0
942.0	629	13.8	6.8	63	6.62	187	27	291.9	311.1	293.1
925.0	784	12.6	6.6	67	6.65	200	33	292.2	311.5	293.4
910.7	914	11.7	6.6	71	6.77	205	34	292.6	312.3	293.8
883.0	1172	10.0	6.7	80	7.02	209	34	293.4	313.8	294.6
878.0	1219	10.0	7.0	82	7.19	210	34	293.8	314.8	295.1
850.0	1489	9.8	8.5	92	8.26	250	39	296.4	320.6	297.9
847.0	1518	9.8	8.4	91	8.23	242	40	296.7	320.9	298.2
846.4	1524	9.8	8.4	91	8.21	240	40	296.7	320.8	298.2
815.8	1829	8.3	6.0	86	7.25	250	36	298.3	319.8	299.6
790.0	2095	7.0	4.0	81	6.49	241	39	299.7	319.1	300.8
786.3	2134	6.7	3.9	82	6.46	240	39	299.8	319.1	300.9
761.0	2402	4.6	2.9	89	6.23	236	35	300.3	319.1	301.4
757.6	2438	4.4	2.6	88	6.12	235	35	300.4	318.9	301.5
729.6	2743	2.4	-0.1	84	5.24	230	37	301.5	317.5	302.5
700.0	3078	0.2	-3.0	79	4.40	230	37	302.7	316.3	303.5
691.0	3182	-0.7	-3.7	80	4.23	230	37	302.8	315.9	303.6
676.3	3353	-1.5	-6.4	69	3.52	230	36	303.7	314.8	304.4
660.0	3548	-2.5	-9.5	59	2.83	227	39	304.8	313.8	305.3
650.9	3658	-3.0	-13.7	43	2.05	225	40	305.5	312.1	305.8
648.0	3694	-3.1	-15.1	39	1.84	225	40	305.7	311.7	306.0
609.0	4183	-6.3	-21.3	29	1.15	229	43	307.5	311.4	307.7
602.5	4267	-6.6	-19.2	36	1.40	230	44	308.0	312.8	308.3
601.0	4286	-6.7	-18.7	38	1.46	230	44	308.2	313.1	308.4
583.0	4524	-8.1	-20.1	37	1.34	234	47	309.2	313.8	309.5
576.0	4617	-8.7	-15.7	57	1.96	236	48	309.6	316.1	310.0
564.0	4781	-9.9	-16.9	57	1.81	238	50	310.1	316.1	310.4
562.0	4808	-10.1	-21.1	40	1.27	239	50	310.1	314.5	310.4
557.0	4877	-10.4	-22.4	37	1.14	240	51	310.5	314.5	310.8
547.0	5016	-11.1	-25.1	31	0.92	240	53	311.4	314.6	311.5
535.2	5182	-12.4	-30.6	20	0.56	240	55	311.8	313.8	311.9
504.0	5640	-15.9	-45.9	6	0.12	240	48	312.9	313.4	312.9
500.0	5700	-16.5	-45.5	6	0.13	240	47	312.9	313.4	312.9