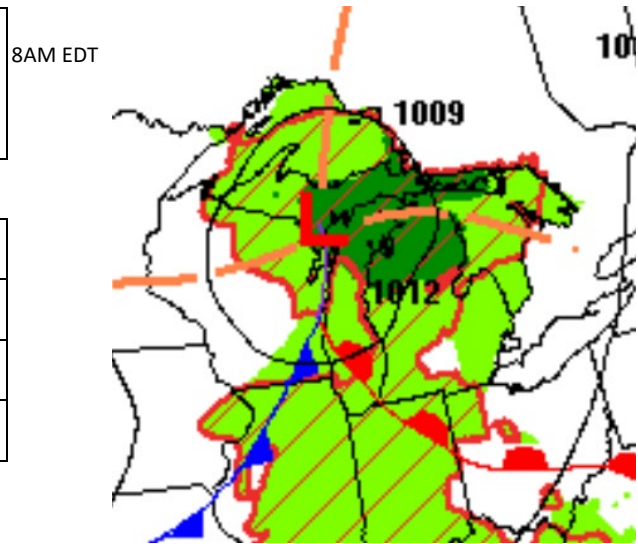


Local time is UTC - 4 hours  
 2023 magnetic variation is -6.5 degrees  
 Magnetic + variation = true

**United States Women's National Championships**  
**Tuesday July 20, 2023 AM**

KPH \* 1.85 = KNOTS

**Discussion:** Pinwheel low over Michigan upper peninsula - Wisconsin border with a warm front followed by a cold front extending to the south. Updated models (hrrr) suggest precipitation will be North of flying area. (about 85 NM at 8:00 EDT)



**Observations:** KARB -31NM E;KBTL-32NM WNW;KLAN-32NM NNW; KOEB-28NM SW

KJXN 200856Z AUTO 17004KT 10SM CLR 18/14 A2999
KARB 200900Z AUTO 00000KT 1/4SM FG CLR 14/14 A2999
KBTL 200853Z 19003KT 10SM CLR 19/16 A2998
KLAN 200853Z 18006KT 10SM CLR 20/14 A2998
KOEB 200855Z AUTO 00000KT 10SM CLR 18/17 A3000

Winds Aloft: Direction FROM and KNOTS	
3000	250 @ 15 knots
6000	260 @ 13 knots
9000	280 @ 21 knots

**Terminal:** KJXN -only 5 mile radius  
 KJXN 200540Z 2006/2106 16007KT P6SM BKN240 ; FM201700  
 23011KT P6SM VCSH BKN090

KNOTS TRUE ABOVE

KPH MAG BELOW

**RUC Winds**

7:00 PM

Alt MSL (ft)	Direction MAG TO	Speed KPH	Speed KNOTS
1070	37	9	5
1168	41	24	13
1332	45	30	16
1611	50	31	17
2011	53	31	17
2539	55	31	17
2546	56	31	17
3166	62	35	19
3878	70	39	21
4669	74	43	23
4911	74	43	23
5564	74	44	24
6578	72	37	20
7720	92	35	19
8996	102	52	28

8:00 PM

Direction MAG TO	Speed KPH	Speed KNOTS
46	11	6
50	22	12
52	28	15
58	31	17
64	33	18
72	37	20
73	37	20
78	39	21
81	43	23
80	46	25
78	44	24
75	43	23
80	35	19
101	41	22
96	52	28

**Pibal winds**

4:30 AM

Alt MSL (ft)	Direction TO	Speed KPH	Speed KNOTS
1107	12	12	6
1314	7	29	15
1514	15	38	20
1714	21	40	22
1913	27	36	19
2113	32	31	17
2313	31	31	17
2513	36	24	13
2713	35	23	12
2912	38	22	12
3112	38	21	11
3312	43	20	11
3512	41	27	15
3712	49	19	10
3911	45	27	15
4111	50	22	12
4311	49	27	15
4511	45	26	14
4711	52	27	15
4910	51	27	15
5110	49	27	14
5310	47	26	14
5510			
5710			
5910			

5:00

Direction TO	Speed KPH	Speed KNOTS
20	13	7
18	27	14
23	35	19
39	33	18
48	30	16
52	26	14
52	25	14
56	22	12
58	21	11
61	24	13
59	26	14
56	25	14
56	25	13
56	25	13
55	25	13
58	25	13
55	29	16
56	30	16
57	31	17
60	26	14
61	26	14
50	32	17
58	26	14
54	33	18
57	18	10