

## National Weather Service Weather Forecast Office Hastings, NE

Heat bursts are caused by decaying thunderstorms and only develop in an extremely unique environment. The rare setup for a heat burst is dry air directly beneath a weakening elevated thunderstorm. When a thunderstorm is weakening air within the thunderstorm begins to sink. If this sinking air is very dry and high enough it will begin to accelerate toward the ground since it is more dense. Any remaining precipitation will fall through this dry air and quickly evaporate. As the air continues downward, it warms rapidly due to compression.

A heat burst is noted by a rapid increase in temperature, a drop in the dew point temperature and an increase in winds. Here are some readings that occurred this morning.

### Lexington Airport

Time	Temp	Dew Pt.	Wind
3:10 am	70	63	Southwest 8 mph
4:30 am	86	48	South 32 mph gusting to 42 mph
5:30 am	81	52	South 25 mph gusting to 32 mph

The peak temperature was 87 degrees at 4:22 am

### Holdrege Airport

Time	Temp	Dew Pt.	Wind
3:50 am	72	61	Southwest 10 mph
4:10 am	82	54	Southwest 27 mph gusting to 41 mph
4:30 am	82	52	Southwest 31 mph gusting to 42 mph
4:50 am	81	54	South 23 mph gusting to 36 mph

### Hastings Airport

Time	Temp	Dew Pt.	Wind
4:53 am	77	62	South 15 mph gusting to 24 mph
5:53 am	91	44	South 17 mph gusting to 38 mph
6:53 am	84	53	South 21 mph gusting to 35 mph
7:53 am	82	53	South 24 mph gusting to 38 mph

Peak temperature was 94 degrees at 5:47 am  
Peak wind gust was from the south at 52 mph at 7:24 am

### Kearney Airport

Time	Temp	Dew Pt.	Wind
4:15 am	70	63	South 15 mph
4:55 am	88	50	Southwest 35 mph gusting to 52 mph
5:55 am	82	52	South 28 mph gusting to 38 mph

The peak temperature was 93 degrees.

### Grand Island Airport

Time	Temp	Dew Pt.	Wind
6:02 am	79	59	Southwest 6 mph
6:53 am	85	51	South 23 mph gusting to 35 mph
8:13 am	81	59	Southwest 8

Peak temperature was 87 degrees at 7:59 am  
Peak Wind Gust was from the South at 40 mph at 6:30 am

The greatest temperature change was at Kearney, where readings went from 70 degrees to 93 degrees between 4 and 5 am. The highest wind gust was 52 mph at both the Hastings and Kearney airports.

Composed by Steve Kisner / Warning Coordination Meteorologist

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