

NOAA TECHNICAL MEMORANDUM NWS NSSFC-32



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SEVERE THUNDERSTORM CASES OF JULY 1990 THRU JUNE 1991

John E. Hales, Jr. and Hugh G. Crowther  
National Severe Storms Forecast Center  
Kansas City, Missouri 64106-2877

February 1992

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U.S. DEPARTMENT OF  
COMMERCE

National Oceanic and  
Atmospheric Administration

National Weather  
Service

National Weather Service  
National Severe Storms Forecast Center

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UNITED STATES  
DEPARTMENT OF COMMERCE  
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Secretary

National Oceanic and  
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Under Secretary

National Weather  
Service  
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# SEVERE THUNDERSTORM CASES OF JULY 1990 THROUGH JUNE 1991

by

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## ABSTRACT

Severe thunderstorm occurrences are relatively infrequent in much of the United States. As a result a forecaster only occasionally has an opportunity to forecast their development. This proves to be a problem as certainly one of the more important factors in forecasting severe thunderstorms is the level of experience of the forecaster. Realizing the importance that experience plays and difficulty involved for a meteorologist to study past cases, a summary was compiled of all the organized severe thunderstorm episodes for the period from July 1990 to June 1991. Included in each case were the times and locations of the severe weather reported along with specifics of the more noteworthy events. A composite of those parameters most frequently found to be associated with severe thunderstorms was included. Each case has a surface and 500mb analysis along with an infrared satellite photo. The objective was to give an overview to a forecaster as to what ingredients went into severe development with a more detailed analysis being left up to the individual.

## INTRODUCTION

More severe thunderstorms occur in the United States than in any other area of the world. Organized severe thunderstorm episodes can occur in any section of the country and in any month of the year. The synoptic conditions that result in the development of these storms vary widely across the country. Severe storm climatology shows the episode frequency decreasing with distance from the center of the country, however only the Pacific coastal states lack a significant number of cases for any great concern.

One of the more important tools in forecasting severe thunderstorm episodes is experience. The more opportunities a forecaster has in working a severe weather situation, the greater his skill and confidence becomes. Unfortunately, these episodes are infrequent enough that, with the exception of the most active areas in the central United States, an individual forecaster may only work a severe situation once or twice per year.

The usual technique for increasing ones experience base is to go back and examine the synoptic charts, particularly for cases with which the forecaster was not previously involved. This can be a rather difficult undertaking because charts of interest may not be

readily available and/or organized in a systematic manner. This is the case at the NSSFC, but it is often so to a much greater extent at the local field offices.

The purpose of this publication is to identify and organize those severe thunderstorm episodes that occurred across the nation for the period from July 1990 through June 1991 into a handy and easy to use format such that a forecaster can readily review those cases that may be of interest to him. The selection procedure of the cases was not very restrictive and included most of the organized severe thunderstorm episodes that occurred nationally. In those areas where storms are rather infrequent, such as west of the Rocky Mountains, the selection threshold was somewhat lower.

#### CASE FORMAT

The basic approach in compiling the cases was to provide the interested forecaster with a comprehensive, but not excessive number of charts. The following is a description of what each chart included.

Daily Activity Summary-A plotting of most all the severe reports along with depiction of the days organized convection is shown(solid line). A listing of any noteworthy individual event is included for each day. The criteria for listing a report would be most of the F2(Fujita 1981) or greater tornadoes, tornadoes/wind damage that result in death, a significant number of injuries and/or damage that generally exceeds \$100,000. Storms that resulted in damage in excess of about \$100,000 were included in the listing by category as used in Storm Data(U.S. Dept. of Commerce 1990 and 1991). Those reports were then located on the activity summary chart by number. Also included is a table listing the daily total of severe reports. Following the date there is included the time range of the organized severe occurrence. All times were in CST.

Composite Chart-The purpose of a composite is to represent on one chart those parameters important in producing severe thunderstorms. The basic composite is similar to that done in TR-200(eg., Miller, 1972) with some modifications. Instead of using the 850 Td, the mean mixing ratio(solid line g/kg) was incorporated as a better representation of the low level moisture supply. The relevant short wave trough(line of triangles) was taken from the 700 mb level rather than 500 mb. This was done for two reasons a) the 500 mb analysis being included in the study and b) a more frequent correlation of troughs at 700 mb with severe thunderstorm development. The polar and subtropical jet-stream is depicted by the maximum winds axis(broad solid line with arrowhead in kts) at the 250 mb level. The lifted index analysis(dashed line) used the lower 100 mb of moisture and a forecasted maximum surface temperature. Any areas of upper diffluence(zig zag line) and mid level drying(heavy dashed line), as well as the low level jet(line

with arrow in kts), as shown on the 850 mb analysis, are included.

500 mb Analysis-The NMC operational 500 mb analyses using the observation time most relevant to the severe thunderstorm development was included.

#### SUMMARY

The details of synoptic patterns that are associated with severe weather events are soon forgotten. However similar, a severe weather situation appears to an earlier occurrence, there are always important differences. Having available the pertinent synoptic conditions that were present in a past situation should enable a forecaster to better identify future storm producing patterns.

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1. JULY 1 NC SC KY TN WV PA NJ VA MD
2. JULY 2 MT NS WY UT
3. JULY 3 LA MS AL GA FL
4. JULY 4 KS IA WI MI NY PA VT CT
5. JULY 9 CO NE IA IL IN OH PA WV VA NJ
6. JULY 11 OR CO IA MN KY VA NC SC GA TN FL MD
7. JULY 16 ND MN WI MI IN
8. JULY 20 IL IN OH PA NY WV NH ME MA
9. JULY 23 ID WY CO KS AZ
10. JULY 23 MS AL GA FL
11. AUG 11 CA AZ CO WY NE ID
12. AUG 13 NY VT NH PA CT NJ MD VA
13. AUG 18 TX OK IA WI CO
14. AUG 20 WA ID MT
15. AUG 20 TX OK AR LA MS AL GA TN IN NC
16. AUG 21 KY TN AL GA SC NC AR OK TX
17. AUG 25 ND SD MN WI IA
18. AUG 27 NE MN MI OH NY PA NJ
19. AUG 28 SD IA IL IN MI OH PA NY NJ MA
20. AUG 29 AR KY TN PA NY MD VA NC SC GA AL
21. AUG 30 LA MS AL GA SC FL
22. SEP 1 AZ

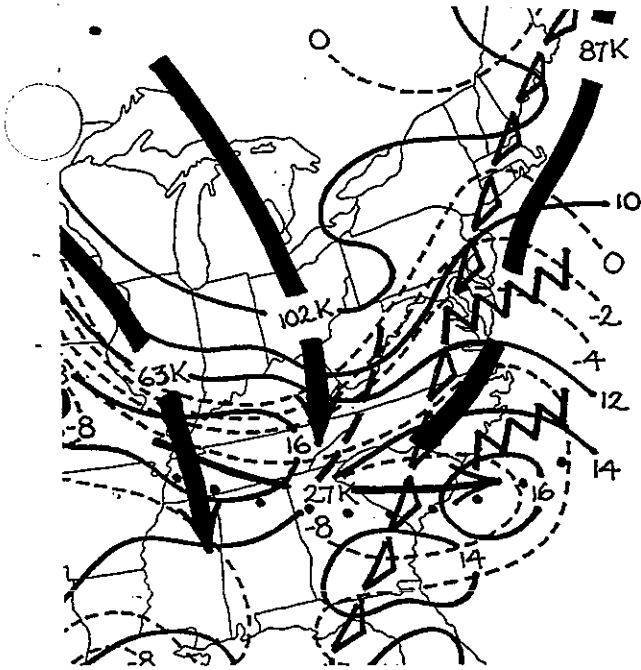
23. SEP 6 ND MN WI MI OH PA WV  
24. SEP 7 KS NE IA AR IL IN KY WV VA NC  
25. SEP 10 NM TX OK KS TN NC GA  
26. SEP 11 MN WI  
27. SEP 14 AZ  
28. SEP 14 MI NY PA OH IN WV NY  
29. SEP 25 UT  
30. OCT 3 IL IN TN MS AL  
31. OCT 17 WI IL IN MO AR TX  
32. OCT 18 NY MA CT PA NJ VA MD NC  
33. NOV 9 FL NC  
34. NOV 27 OK KS MO IL AR MS  
35. DEC 3 LA MS AL FL GA  
36. DEC 20 TX OK LA MS  
37. DEC 21 TX LA AR MS  
38. JAN 14 TX LA  
39. JAN 18 TX  
40. JAN 19 FL  
41. FEB 13 MO TN GA NC MS AR  
42. FEB 18 TX AR LA  
43. MAR 1 TX LA MS AL GA SC NC FL  
44. MAR 2 LA MS AL TN GA FL OH NY PA  
45. MAR 3 GA SC NC FL  
46. MAR 20 CA  
47. MAR 21 TX OK MO AR IL IN KY  
48. MAR 22 IA WI MI IL IN KY TN AL MS AR TX OK  
49. MAR 26 CA

50. MAR 26 KS NE OK TX IA MO IL WI MI IN OH  
 51. MAR 27 WI MI IL IN OH NY PA MO KY TN AL  
 52. MAR 28 TX LA MS AL GA  
 53. MAR 29 AL GA SC NC VA  
 54. APR 2 KS OK TX  
 55. APR 8 NE IA WI IL MO OK AR MS SC NC PA  
 56. APR 9 AR MS AL GA SC NC TN KY IN OH MI NY PA MD  
 57. APR 11 NE KS OK TX LA  
 58. APR 12 TX OK KS NE AR LA MS AL  
 59. APR 13 OK TX AR LA MS  
 60. APR 14 OK AR MS LA AL  
 61. APR 17 OK MO OK AR TX LA  
 62. APR 18 TX LA  
 63. APR 19 TX AR LA MS GA SC  
 64. APR 20 GA FL SC  
 65. APR 24 TX OK LA MS AR ID MD NJ  
 66. APR 25 TX OK FL  
 67. APR 26 SD NE IA KS MO OK AR TX LA MS  
 68. APR 27 IL TX AR LA MS AL GA  
 69. APR 28 KS NE IA WI MO OK AR TX LA MS AL GA SC PA  
 70. APR 29 NE IA MN WI IL TX LA MS AL GA SC NC FL  
 71. MAY 1 NY PA OH VA NC AL VA FL OR ID  
 72. MAY 2 WY CO NE KS OK TX  
 73. MAY 3 CO KS MO OK TX LA  
 74. MAY 4 KS MO IA IL OK TX AR LA MS GA  
 75. MAY 5 IL TX LA MS AL GA SC  
 76. MAY 6 PA WV MD VA NC NJ

77. MAY 7 TX OK  
 78. MAY 10 WY NE SD OK TX NM  
 79. MAY 11 MT SD WY NE CO KS OK TX NM  
 80. MAY 12 WY ND SD MN NE IA TX AL  
 81. MAY 14 WY SD ND MN IA NE OK IA IL IN KY  
 82. MAY 15 WY SD NE CO KS OK TX MO  
 83. MAY 16 CO NE KS MO OK TX FL OH IN MS  
 84. MAY 17 ID WY UT IA IL IN OH MO TX NY VT NH ME MA VA FL  
 85. MAY 18 ID MT WY CO  
 86. MAY 22 WY NE KS CO TX WI IN  
 87. MAY 23 CO NM KS OK TX  
 88. MAY 24 MT WY CO KS TX OK OH PA  
 89. MAY 26 SD WY CO KS MO OK  
 90. MAY 27 WY SD NE CO MN WI IA  
 91. MAY 28 TX NM KS CO WY NE SD MN WI MI OH  
 92. MAY 29 WY WA SD NE CO KS TX IA WI MI PA  
 93. MAY 30 WY NE SD ND MN KS IL IA MI OH NY PA MA CT NJ MD FL  
 94. MAY 31 CO NM TX KS NE SD MN IA WI IL IN MI OH NJ VT FL  
 95. JUN 1 CO WY NE KS OK TX IA MN WI IL KY WV VA NC SC GA FL  
 96. JUN 2 CO WY OK TX IA IN OH KY WV VA NC SC  
 97. JUN 4 NV SD NE KS OK TX MO TN GA AL MS LA  
 98. JUN 5 NM TX OH KS CO AR LA MS AL AZ  
 99. JUN 6 NM CO WY TX LA MS  
 100. JUN 9 WY CO NE SD ND MN TX NM  
 101. JUN 11 PA OH NY VT NM CT  
 102. JUN 12 OK TX MN UT NY VT ME MA CT RI NJ  
 103. JUN 13 ND SD NE MN WI IL OK MO AR TX

104. JUN 14 WY ND SD NE CO KS OK TX MO IA WI MI MN  
105. JUN 15 OK KS MO IL IN MI OH NY PA VT  
106. JUN 16 CO KS TX NY CT NJ PA MD DE VA NC SC FL  
107. JUN 17 SD MN NE KS OK NC DE FL  
108. JUN 18 WY CO NE SD MN IA WI KS OK TX OH FL  
109. JUN 19 MT NE SD MN IA CO KS OK  
110. JUN 21 MT WY NE CO KS MO OK TX MS WI  
111. JUN 22 MT WY CO KS OK TX AR MS VA NC  
112. JUN 23 ND SD MT WY TX OK  
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114. JUN 25 MT ID WY ND SD MN AL  
115. JUN 29 MT WY SD CO  
116. JUN 30 ND SD NE KS MN OH PA NJ



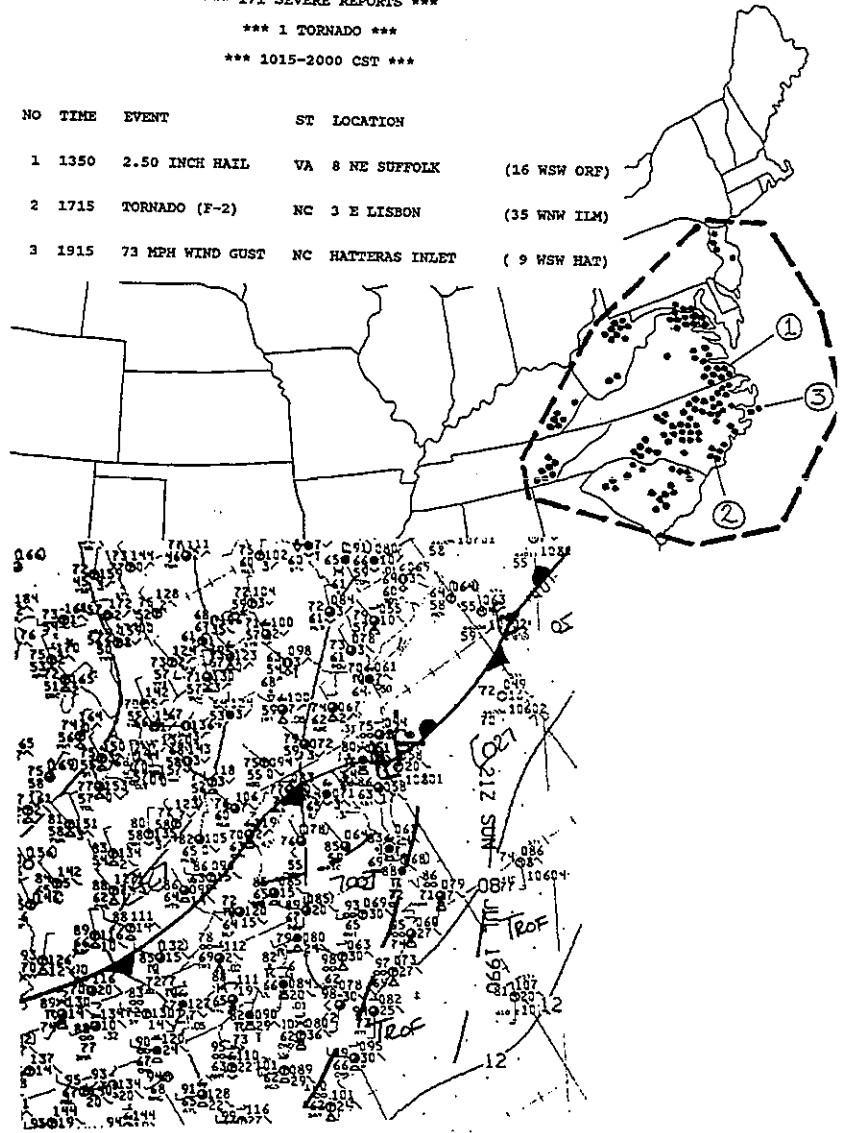


Composite 6PM CST July 1, 1990

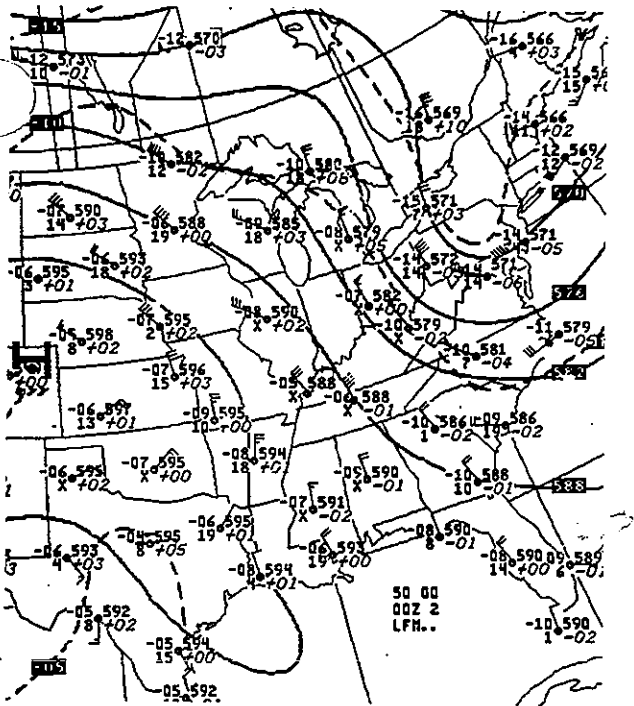
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 JULY 1ST, 1990  
 \*\*\*\*\*

\*\*\* 171 SEVERE REPORTS \*\*\*  
 \*\*\* 1 TORNADO \*\*\*  
 \*\*\* 1015-2000 CST \*\*\*

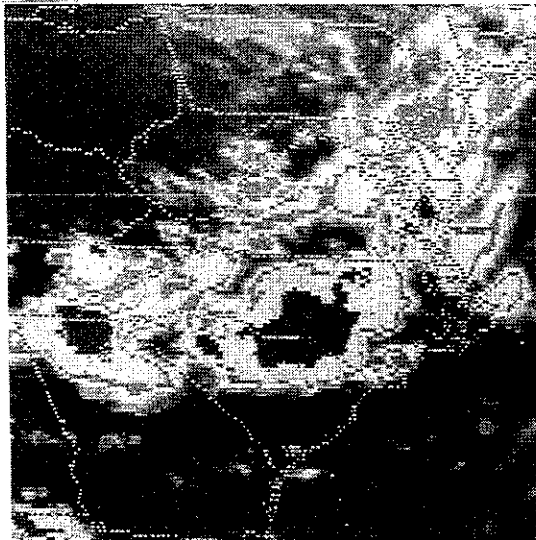
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1	1350	2.50 INCH HAIL	VA	8 NE SUFFOLK	(16 WSW ORF)
2	1715	TORNADO (F-2)	NC	3 E LISBON	(35 WNW ILM)
3	1915	73 MPH WIND GUST	NC	HATTERAS INLET	(9 WSW HAT)



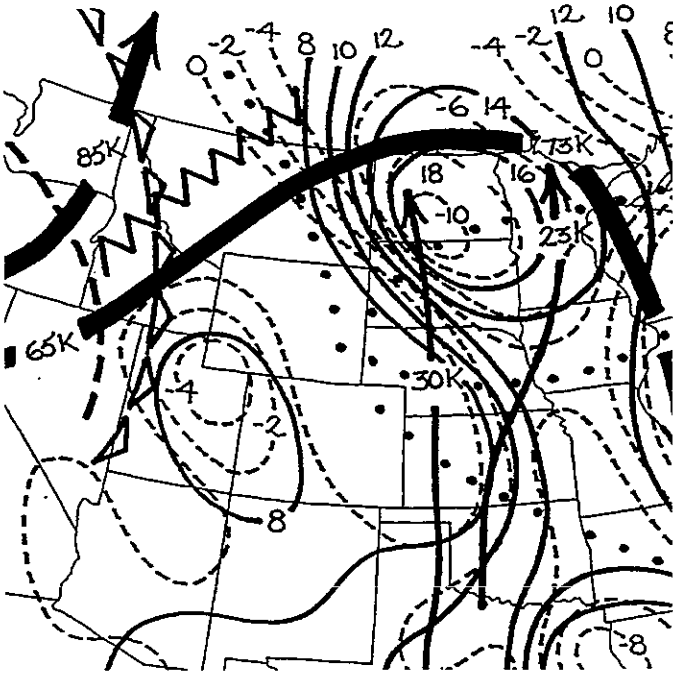
Surface 3PM CST July 1, 1990



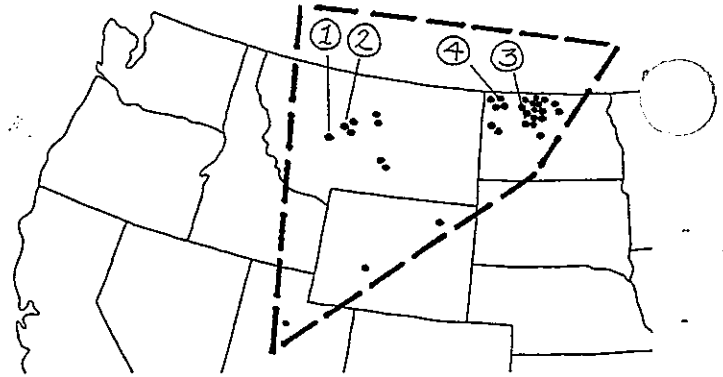
500 MB 6PM CST July 1, 1990



9 GOES 4PM CST July 1, 1990



Composite 6PM CST July 2, 1990



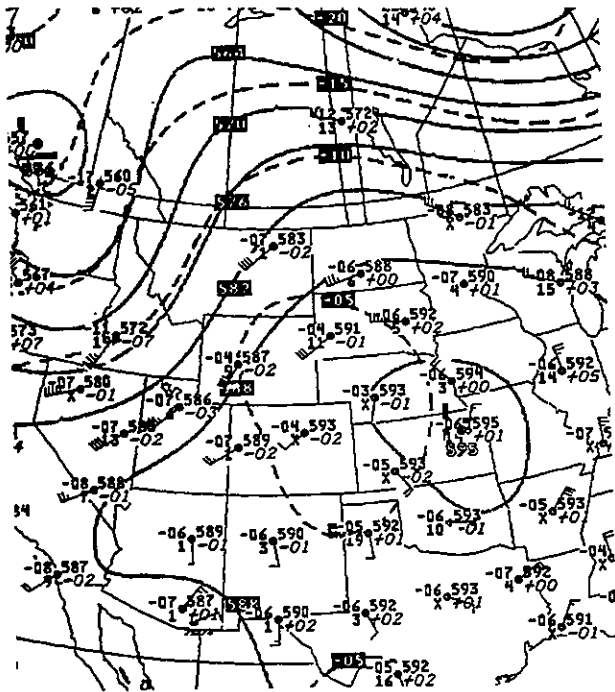
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 JULY 2ND-3RD, 1990  
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\*\*\* 49 SEVERE REPORTS \*\*\*

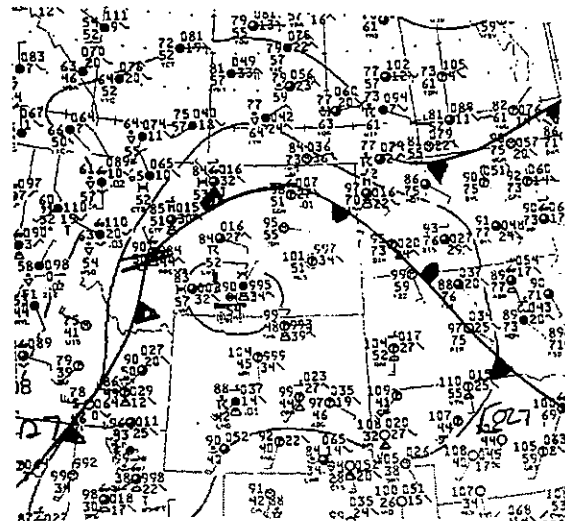
\*\*\* 8 TORNADOES \*\*\*

\*\*\* 1355-0130 CST \*\*\*

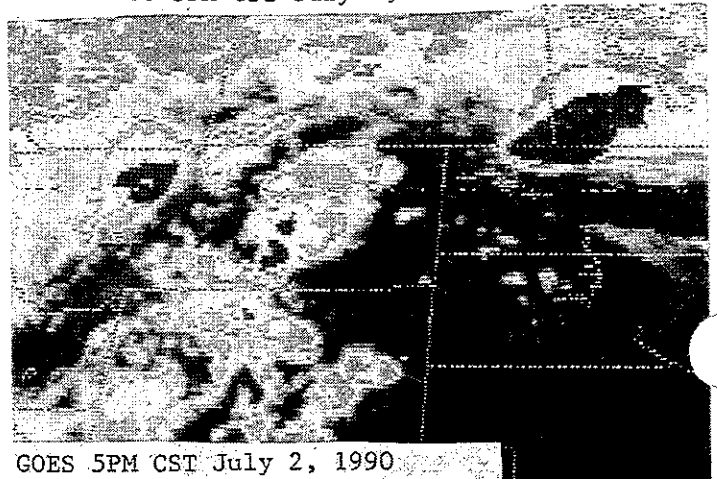
NO	TIME	EVENT	ST	LOCATION
1	1630	86 MPH WIND GUST one injury, more than five million dollars damage	MT	GREAT FALLS ( GTF)
2	1730	80 MPH WIND GUST 1.25 INCH HAIL more than five million dollars crop damage	MT	GERALDINE (53 ENE GTF)
3	1959	2.75 INCH HAIL	ND	RYDER (13 NNE P24)
4	2315	TORNADO (F-0) one injury	ND	6 SW WATFORD CITY (35 SSE ISN)



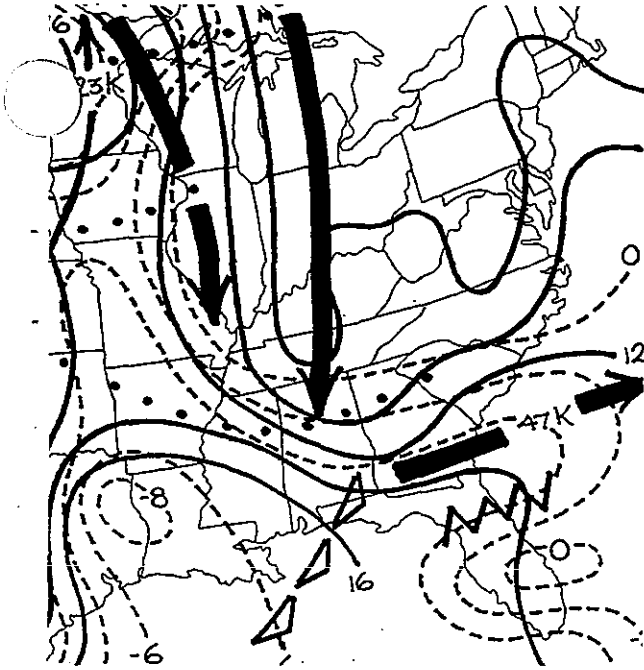
500 MB 6PM CST July 2, 1990



Surface 3PM CST July 2, 1990



GOES 5PM CST July 2, 1990



Composite 6PM CST July 2, 1990

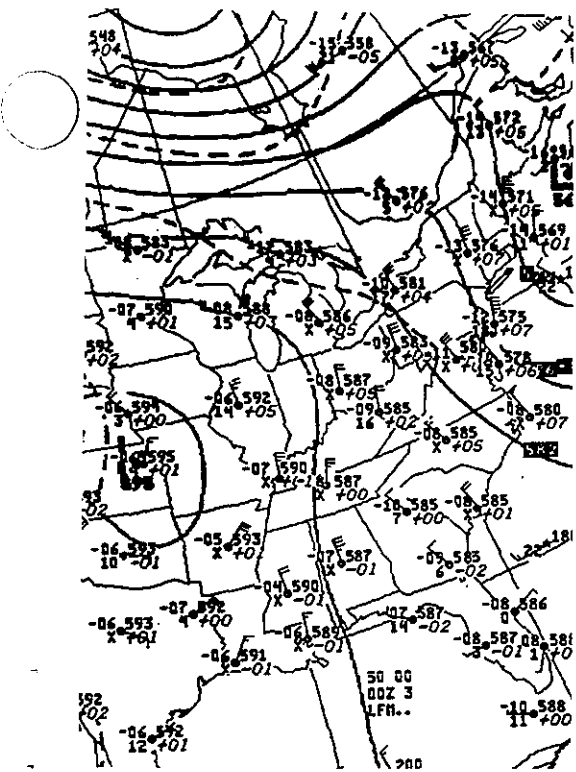
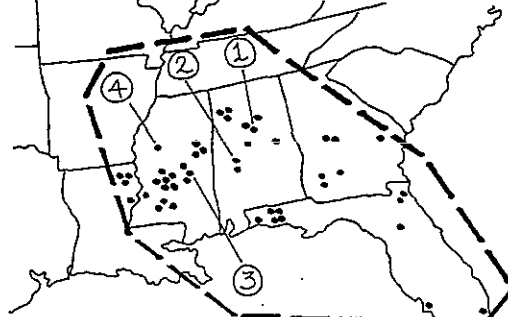
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\*\*\* 61 SEVERE REPORTS \*\*\*

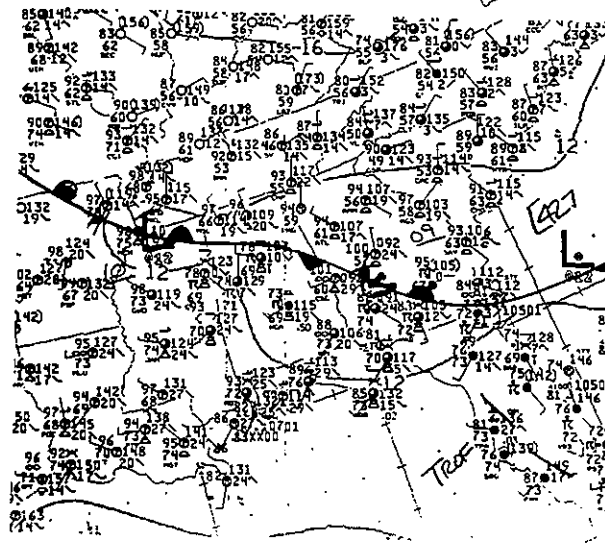
\*\*\* 2 TORNADOES \*\*\*

\*\*\* 0820-2147 CST \*\*\*

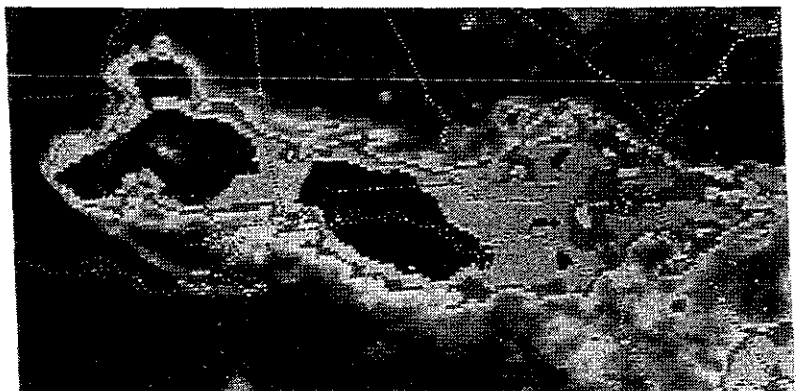
NO	TIME	EVENT	ST	LOCATION	
1	1405	WIND DAMAGE five injuries	AL	HOMWOOD	( 6 S BHM)
2	1415	WIND DAMAGE five injuries	AL	NORTHPORT	( 1 ESE TCL)
3	1600	WIND DAMAGE eight injuries, 0.8 million dollars damage	MS	PHILADELPHIA	(36 NW MEI)
4	1810	80 MPH WIND GUST	MS	GREENWOOD	( GWO)



500 MB 6PM CST July 2, 1990



Surface 3PM CST July 2, 1990

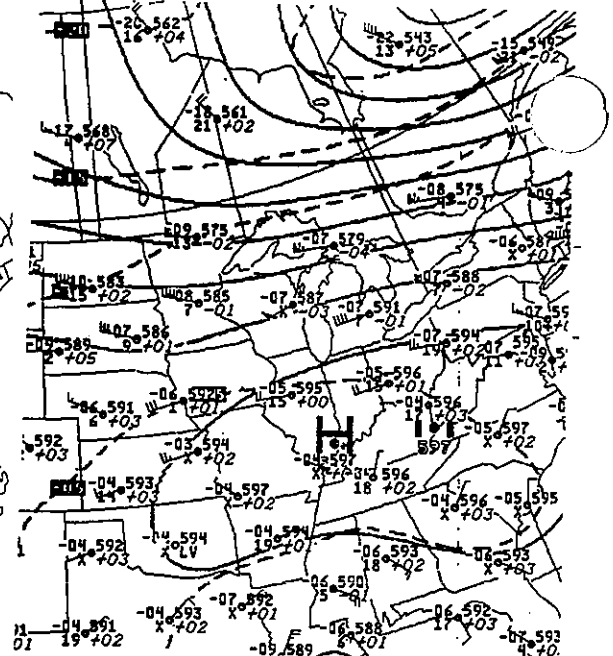
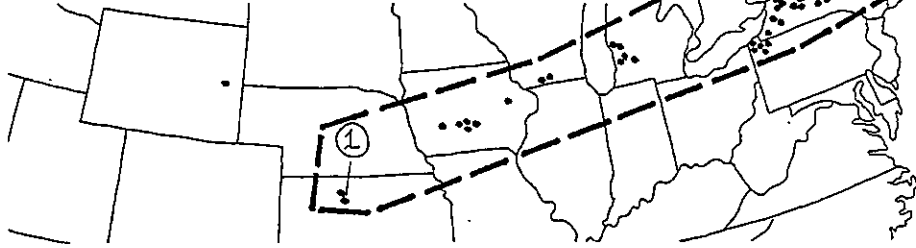


GOES 7PM CST July 2, 1990

\*\*\*\*\*  
 JULY 4TH-5TH, 1990  
 \*\*\*\*\*

\*\*\* 62 SEVERE REPORTS \*\*\*  
 \*\*\* 1 TORNADO \*\*\*  
 \*\*\* 1654-0130 CST \*\*\*

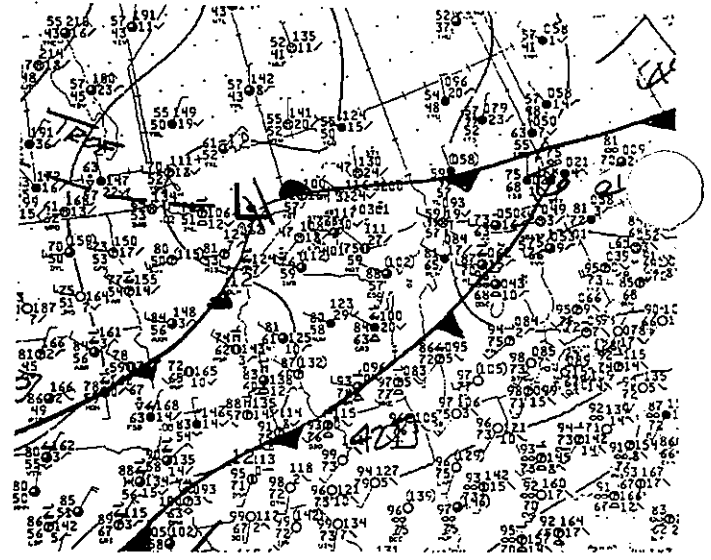
NO	TIME	EVENT	ST	LOCATION
1	2012	2.00 INCH HAIL	KS	2 S STOCKTON (29 E HLC)



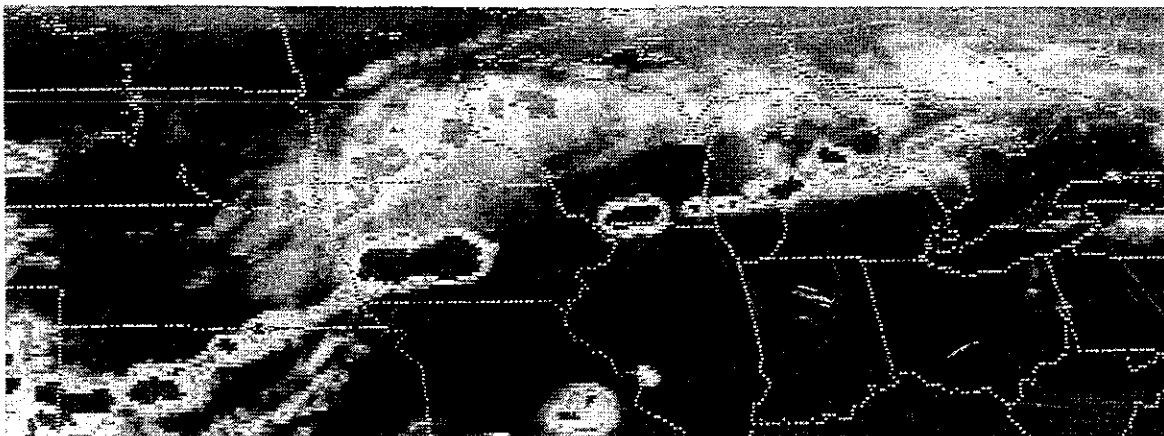
500MB 6PM CST July 4, 1990



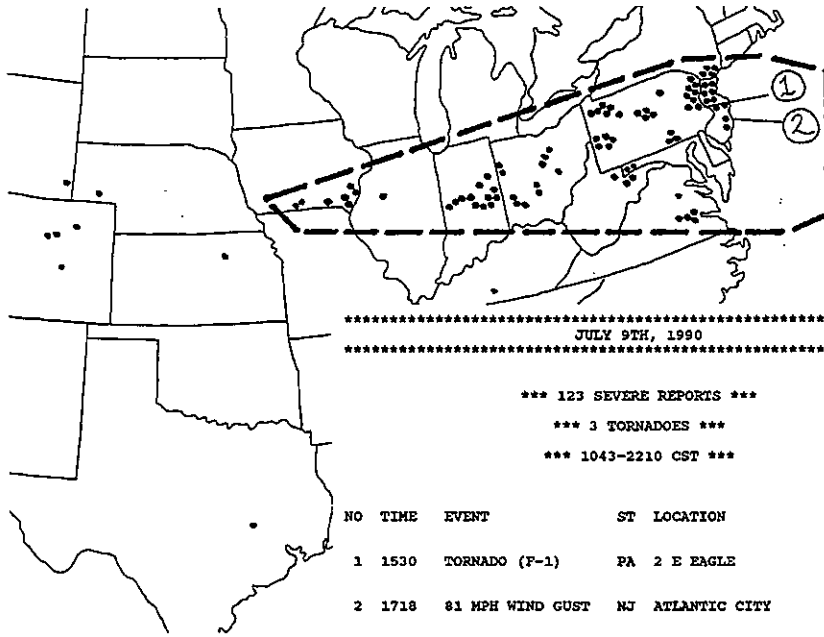
Composite 6PM CST July 4, 1990



Surface 3PM CST July 4, 1990



GOES 6PM CST July 4, 1990



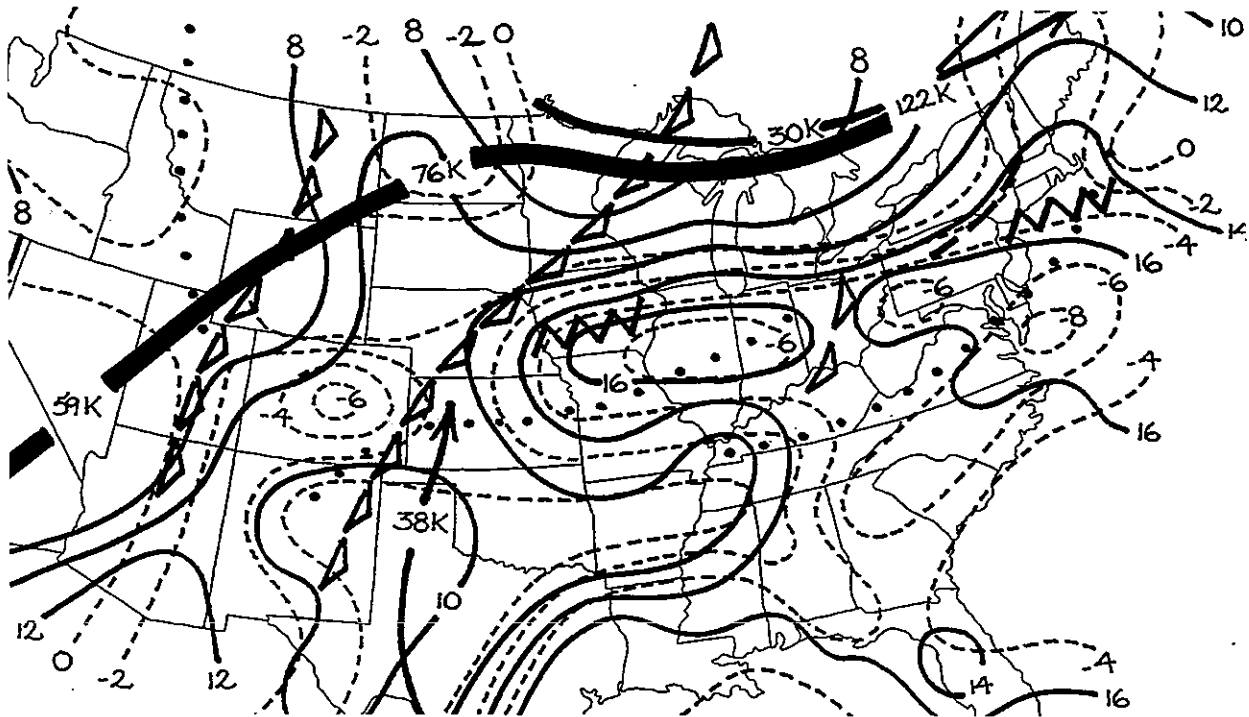
\*\*\*\*\*  
 JULY 9TH, 1990  
 \*\*\*\*\*

\*\*\* 123 SEVERE REPORTS \*\*\*

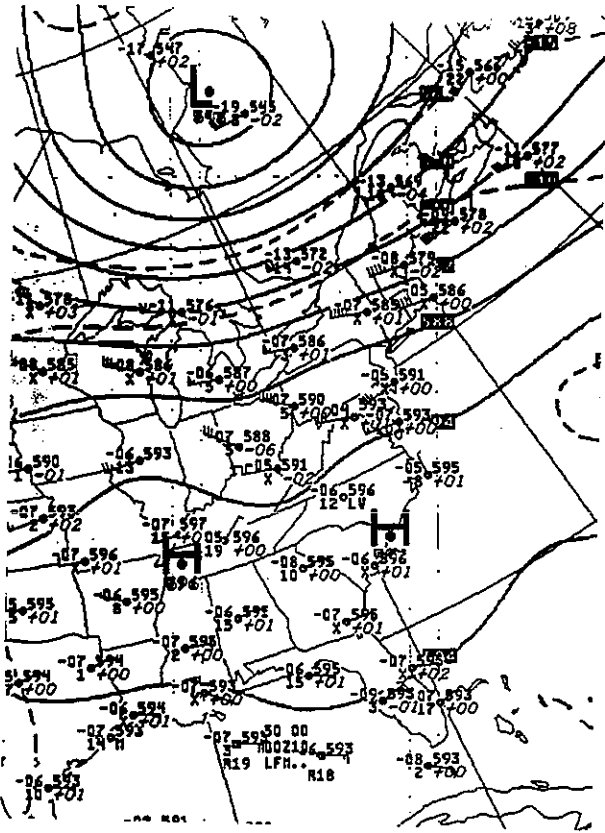
\*\*\* 3 TORNADOES \*\*\*

\*\*\* 1043-2210 CST \*\*\*

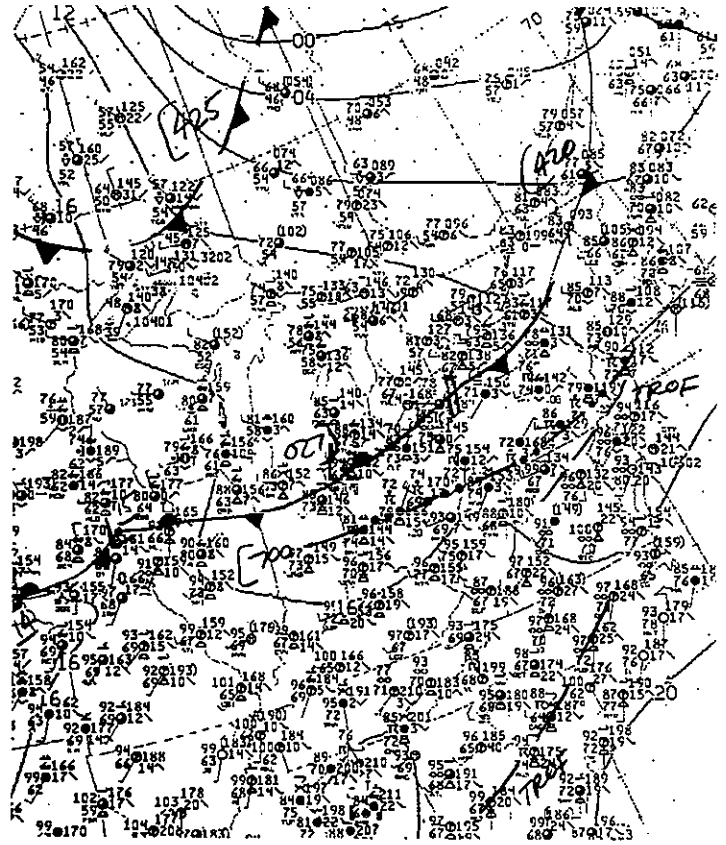
NO	TIME	EVENT	ST	LOCATION	
1	1530	TORNADO (F-1)	PA	2 E EAGLE	(25 NW PHL)
2	1718	81 MPH WIND GUST	NJ	ATLANTIC CITY	( ACY)



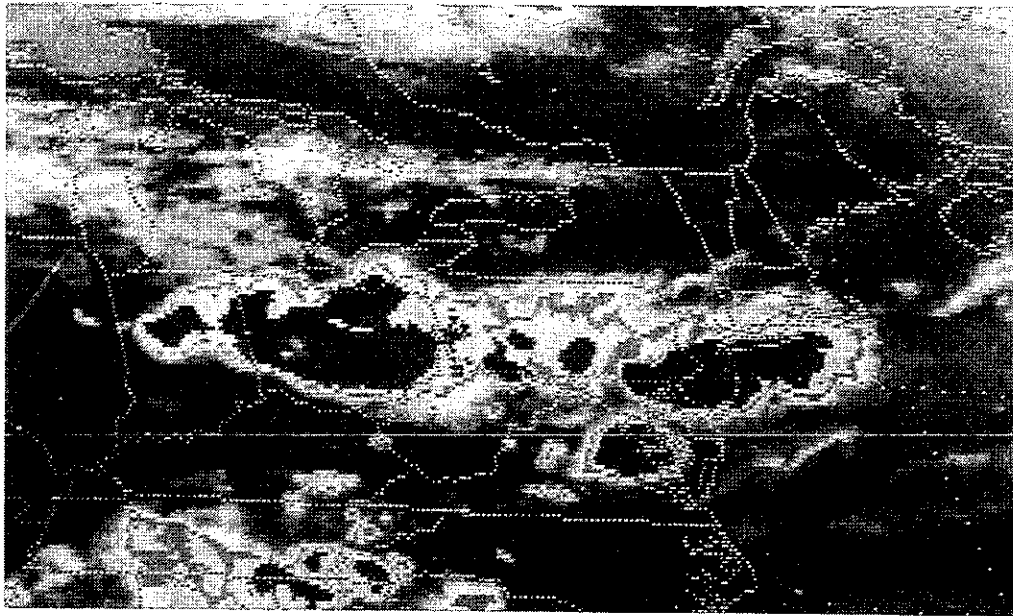
Composite 6PM CST July 9, 1990



500MB 6PM CST July 9, 1990



Surface 3PM CST July 9, 1990

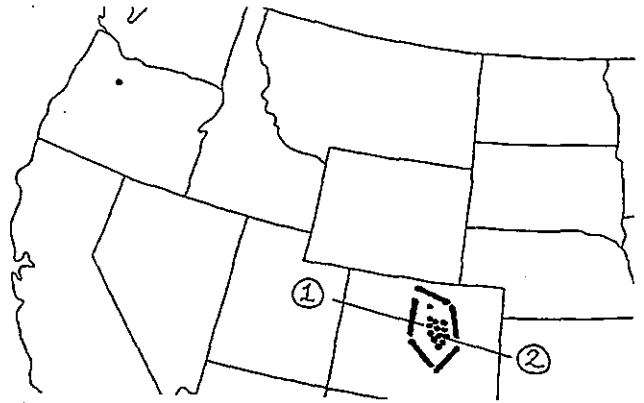
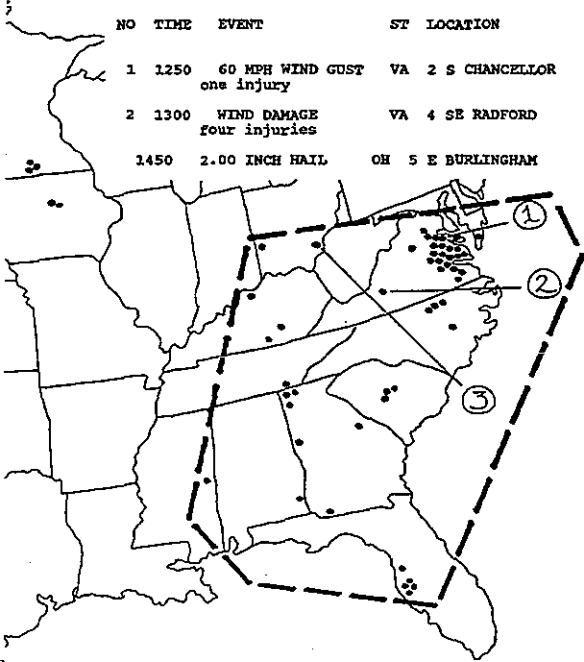


GOES 5PM CST July 9, 1990

\*\*\*\*\*  
 JULY 11TH, 1990  
 \*\*\*\*\*

\*\*\* 72 SEVERE REPORTS \*\*\*  
 \*\*\* 3 TORNADOES \*\*\*  
 \*\*\* 1109-1900 CST \*\*\*

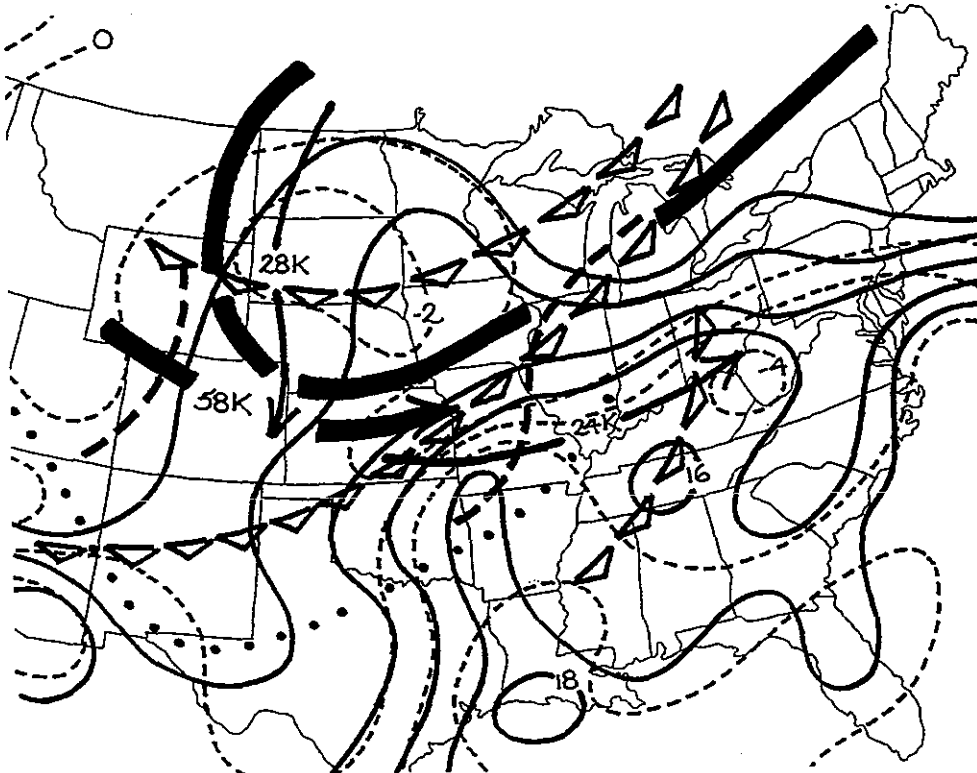
NO	TIME	EVENT	ST	LOCATION	
1	1250	60 MPH WIND GUST one injury	VA	2 S CHANCELLOR	(22 SW NYG)
2	1300	WIND DAMAGE four injuries	VA	4 SE RADFORD	(27 WSW ROA)
	1450	2.00 INCH HAIL	OH	5 E BURLINGHAM	(25 WSW PKB)



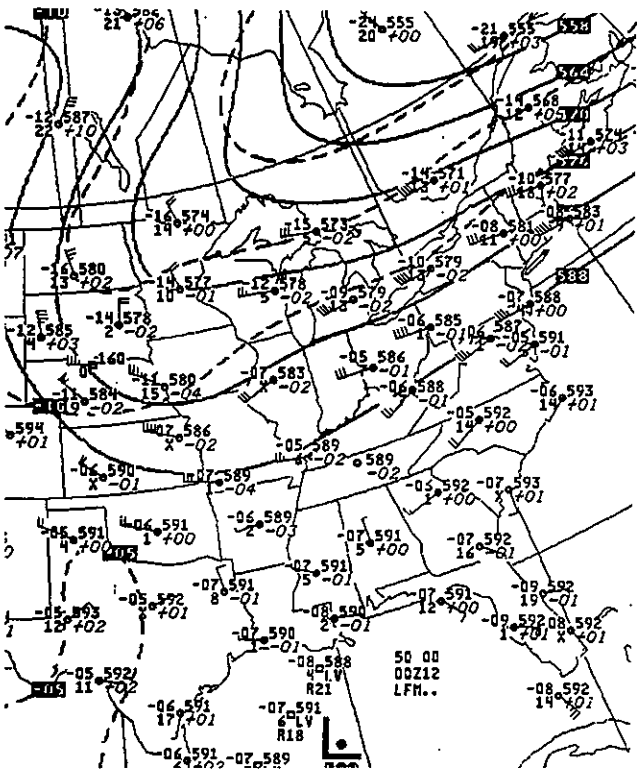
\*\*\*\*\*  
 JULY 11TH, 1990  
 \*\*\*\*\*

\*\*\* 16 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 1250-1600 CST \*\*\*  
 \*\*\* 625 million dollars hail damage in eastern Colorado \*\*\*

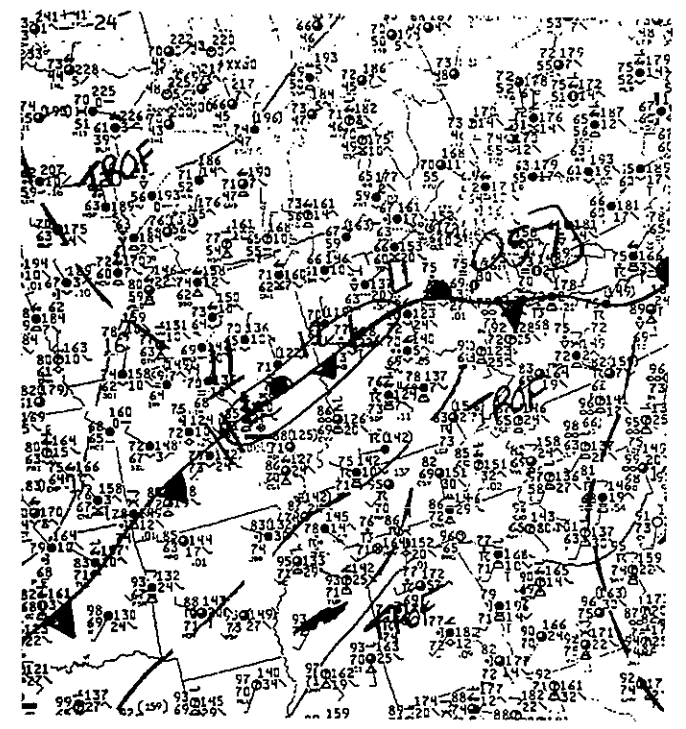
NO	TIME	EVENT	ST	LOCATION	
1	1410	2.75 INCH HAIL	CO	ARVADA	(12 WNW DEN)
2	1430	1.75 INCH HAIL forty-seven injuries	CO	NORTHWEST DENVER	( DEN)



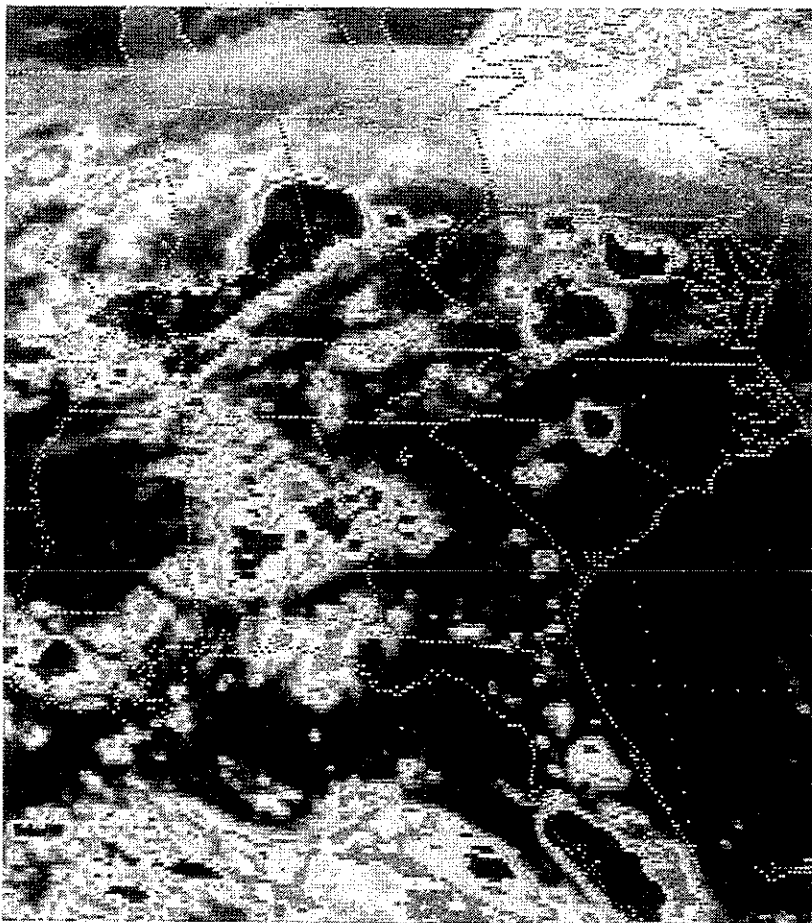
Composite 6PM CST July 11, 1990



500MB 6PM CST July 11, 1990

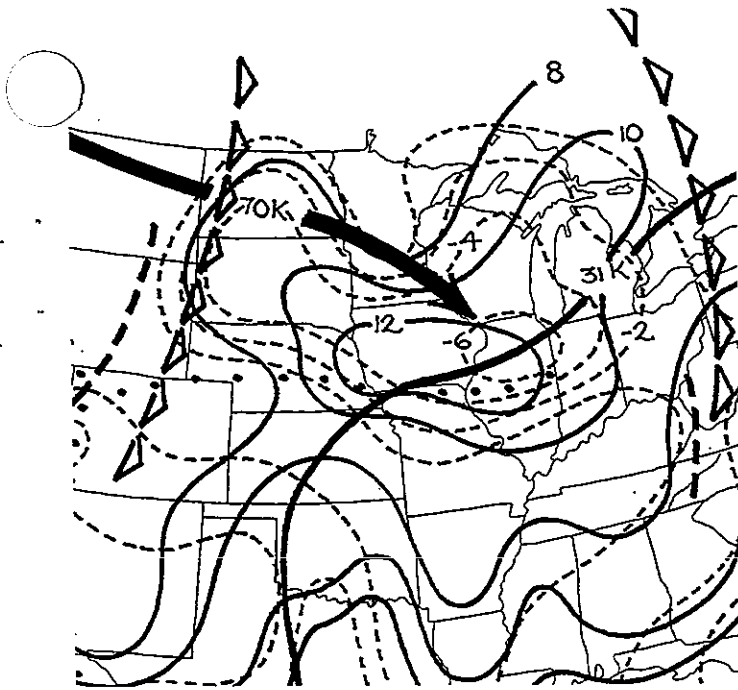


Surface 3PM CST July 11, 1990

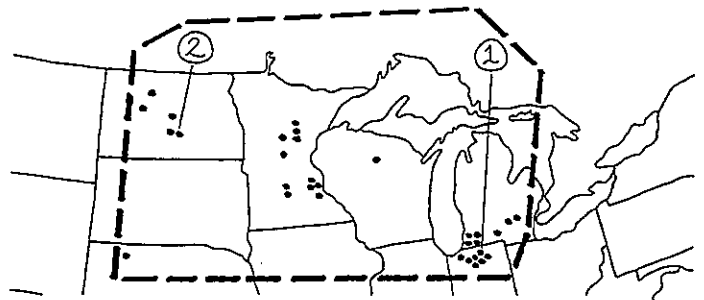


GOES 2PM CST July 11, 1990





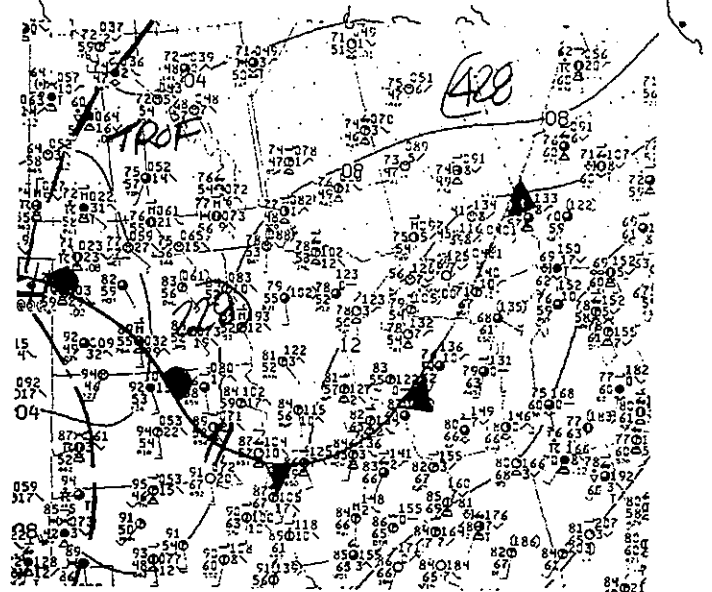
Composite 6PM CST July 16, 1990



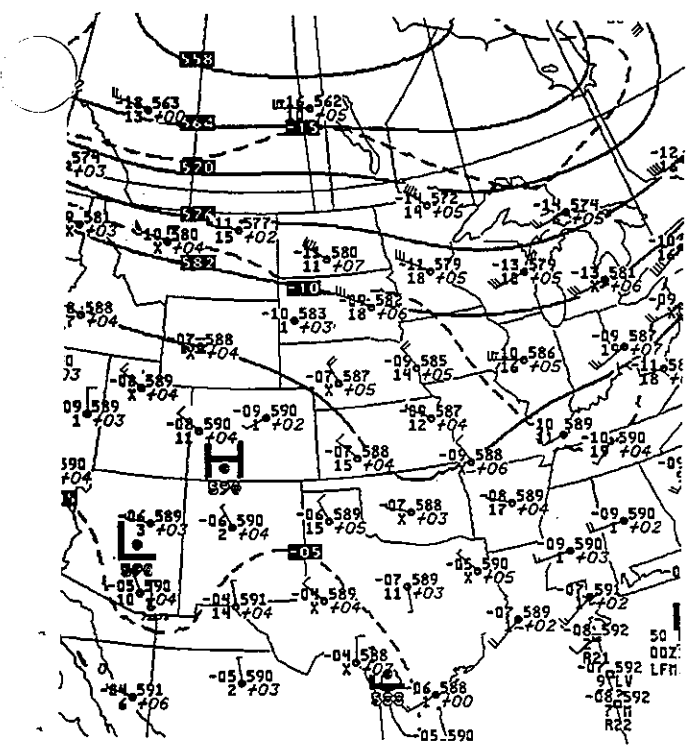
\*\*\*\*\*  
 JULY 16TH-17TH, 1990  
 \*\*\*\*\*

\*\*\* 31 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 1315-0355 CST \*\*\*

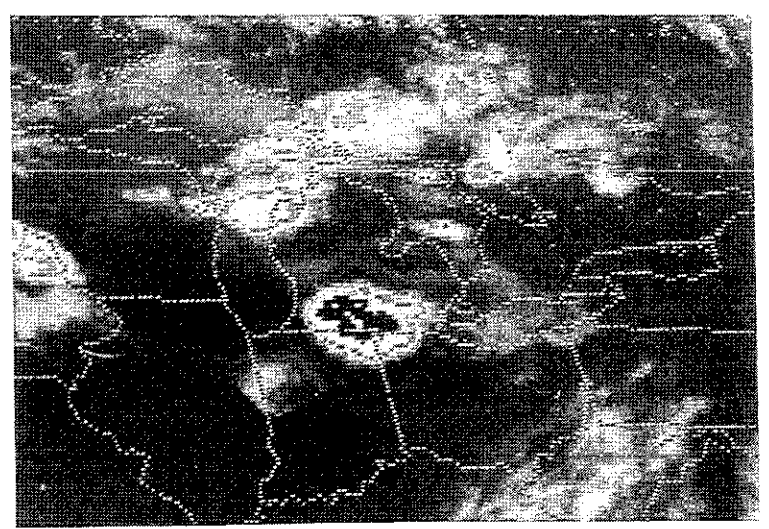
NO	TIME	EVENT	ST	LOCATION	
1	1819	TORNADO (F-1)	MI	BARRON LAKE	(11 NE SBN)
	1845			CLAVIN CENTER	(21 ENE SBN)
2	2330	TORNADO (F-1) two injuries	ND	3 N LEHR	(50 SW JMS)



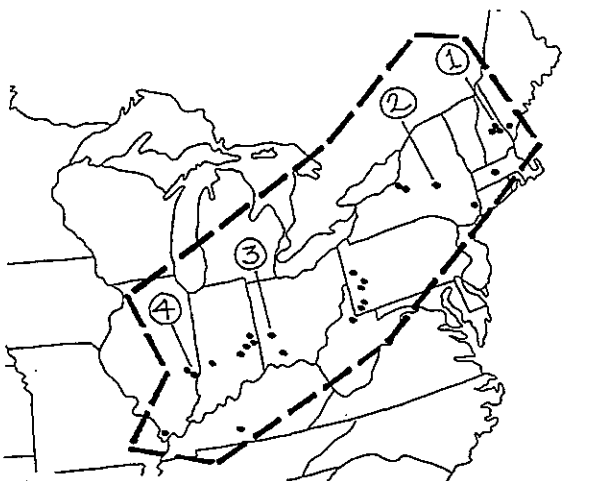
Surface 6PM CST July 16, 1990



500MB 6PM CST July 16, 1990

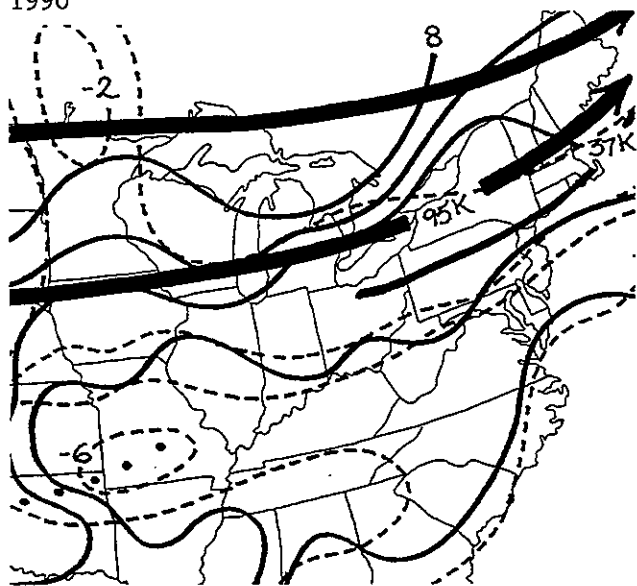


GOES 8PM CST July 16, 1990



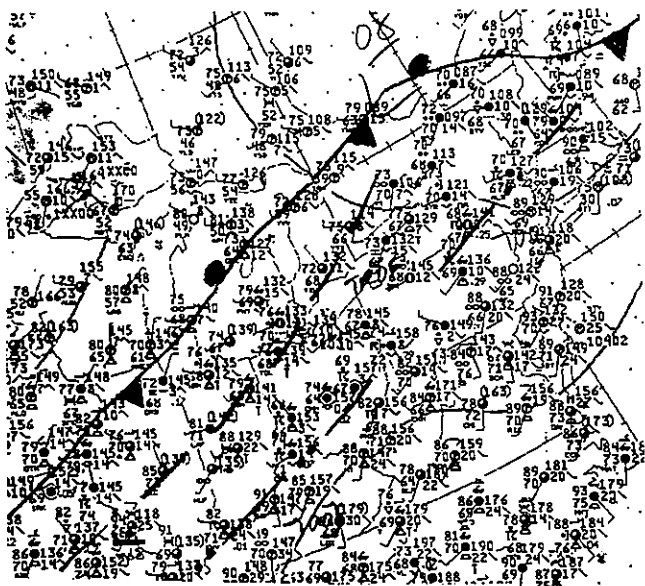
JULY 20TH, 1990

\*\*\* 42 SEVERE REPORTS \*\*\*  
 \*\*\* 1005-1900 CST \*\*\*

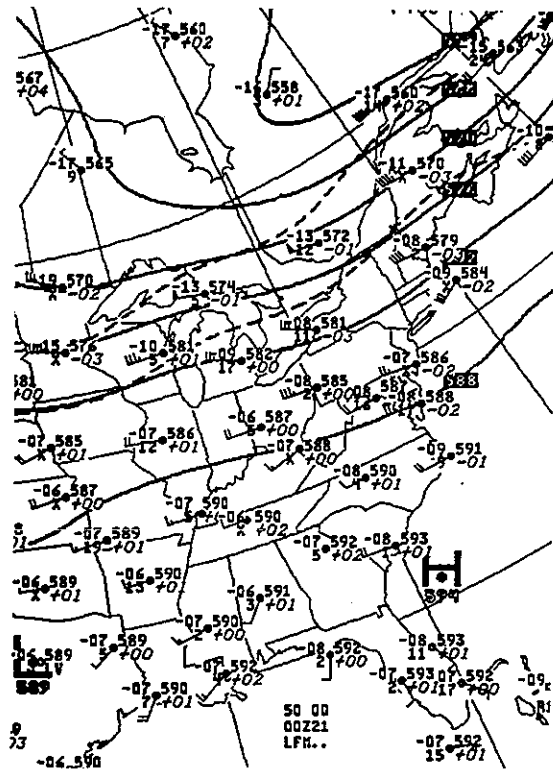


Composite 6PM CST July 20, 1990

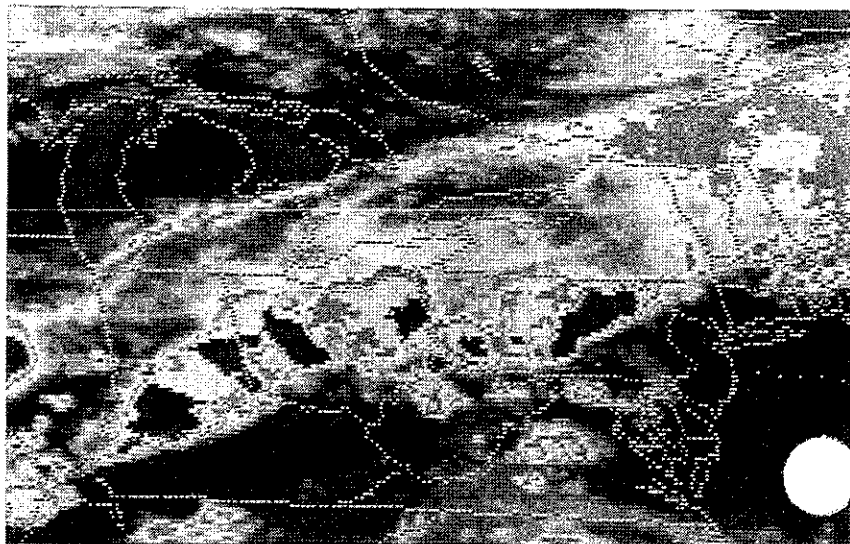
NO	TIME	EVENT	ST	LOCATION
1	1140	WIND DAMAGE more than half a million dollars damage	NH	LAKE WINNIPESAUKEE ( 5 NE LCI)
2	1310	WIND DAMAGE one injury	NY	PITTSFIELD (36 SSE UCR)
3	1430	68 MPH WIND GUST	OH	DAYTON ( DAY)
4	1757	2.75 INCH HAIL	IL	ROBINSON (38 SW HUP)



Surface 3PM CST July 20, 1990



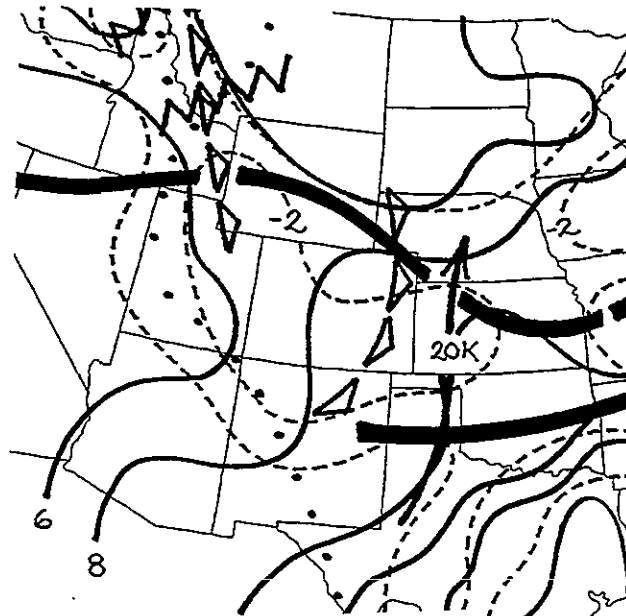
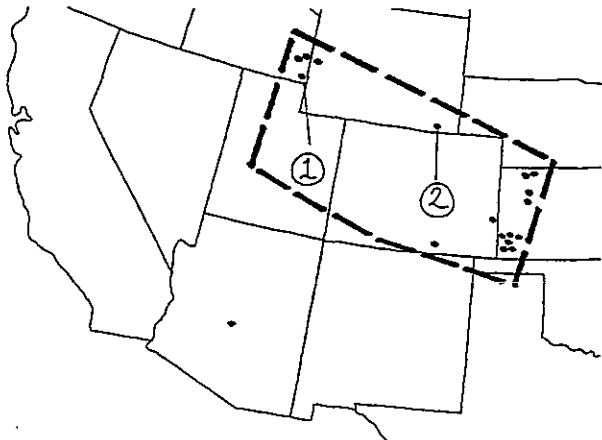
500MB 6PM CST July 20, 1990



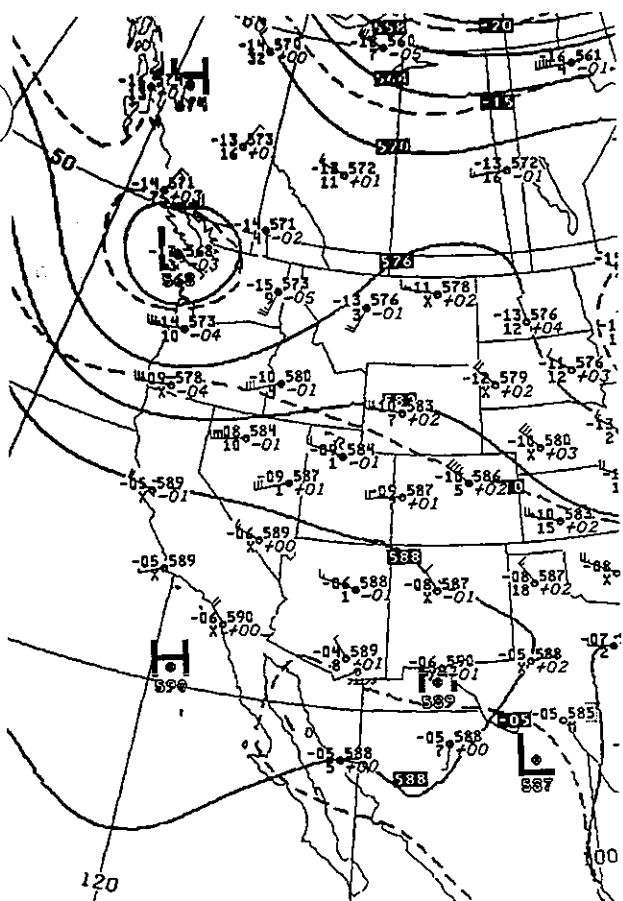
\*\*\*\*\*  
 JULY 23RD, 1990  
 \*\*\*\*\*

\*\*\* 20 SEVERE REPORTS \*\*\*  
 \*\*\* 1436-2050 CST \*\*\*

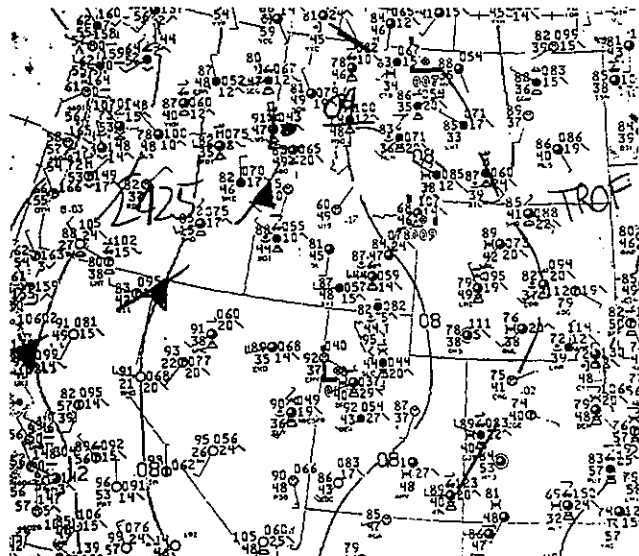
NO	TIME	EVENT	ST	LOCATION	
1	1456	75 MPH WIND GUST	ID	MONTPELIER	(52 E MLD)
2	1658	2.00 INCH HAIL	WY	3 NNE CHEYENNE	(3 NNE CYS)



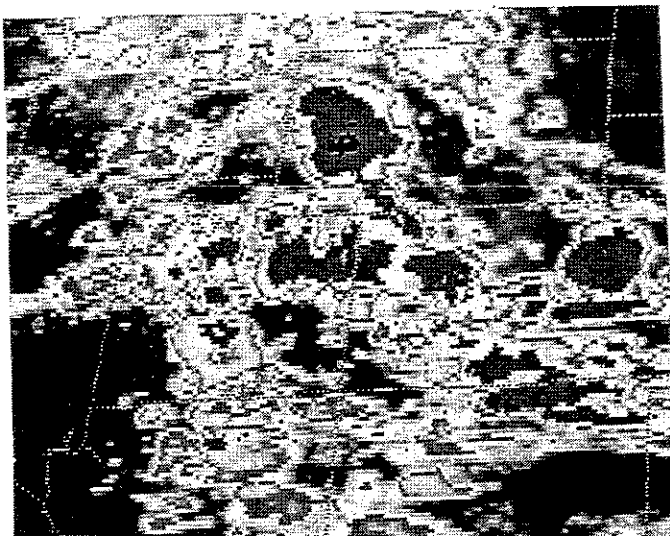
Composite 6PM CST July 23, 1990



500MB 6PM CST July 23, 1990



Surface 3PM CST July 23, 1990



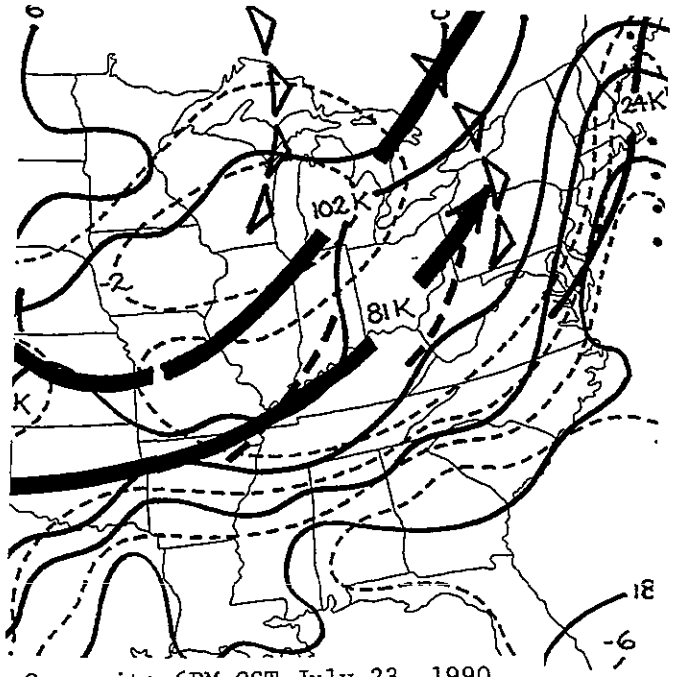
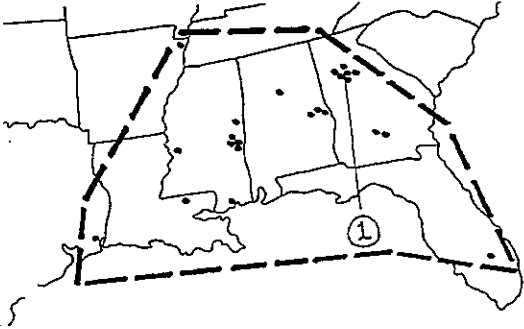
19 GOES 5PM CST July 23, 1990

\*\*\*\*\*  
 JULY 23RD, 1990  
 \*\*\*\*\*

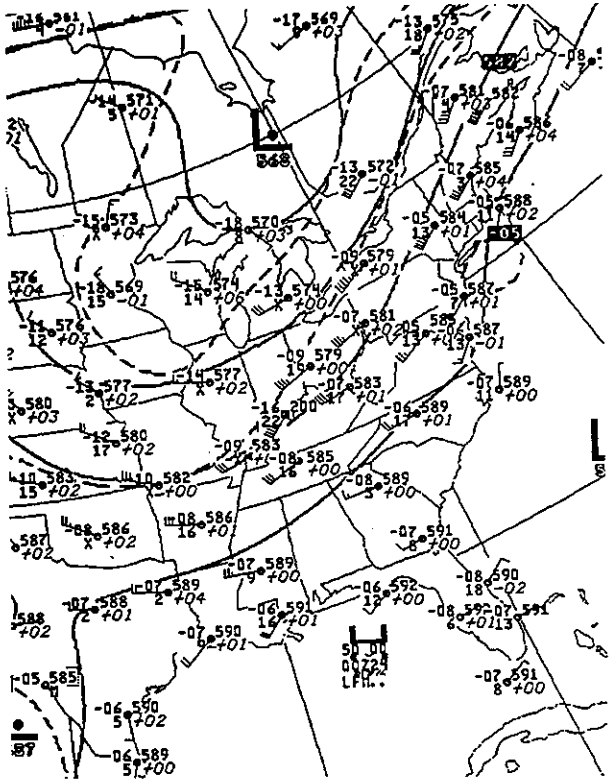
\*\*\* 22 SEVERE REPORTS \*\*\*  
 \*\*\* 1110-1948 CST \*\*\*

NO TIME EVENT ST LOCATION ( 9 ENE ATL)

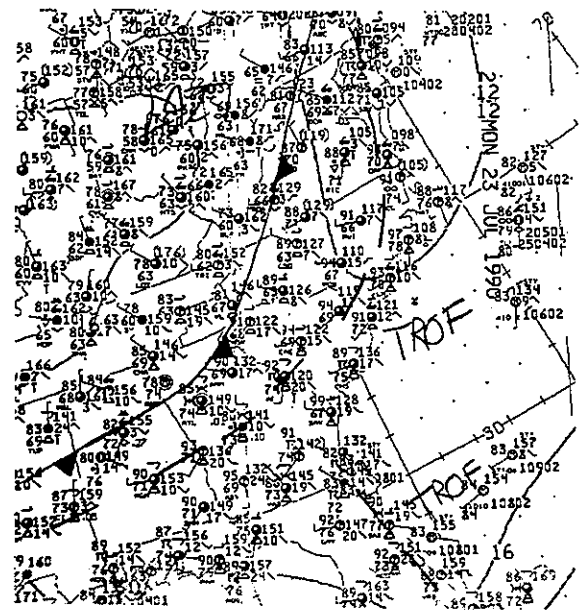
1 1528 73 MPH WIND GUST GA DE KALB COUNTY



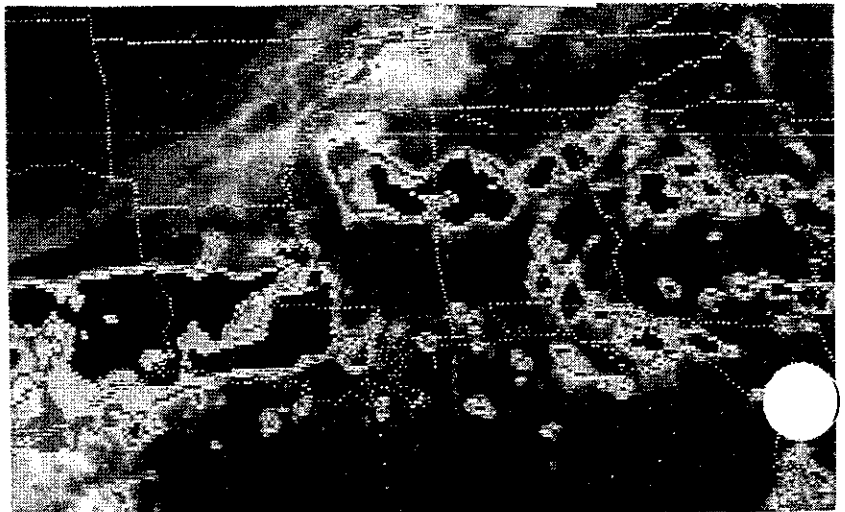
Composite 6PM CST July 23, 1990



500MB 6PM CST July 23, 1990



Surface 3PM CST July 23, 1990

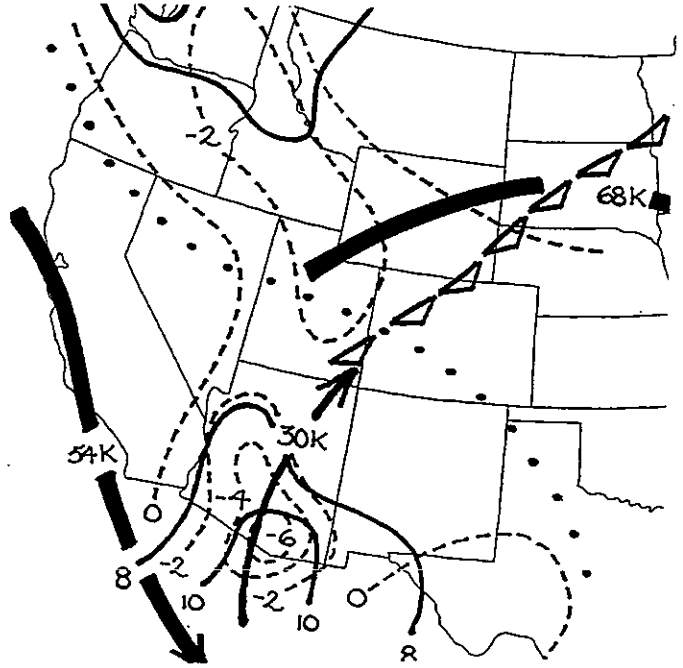
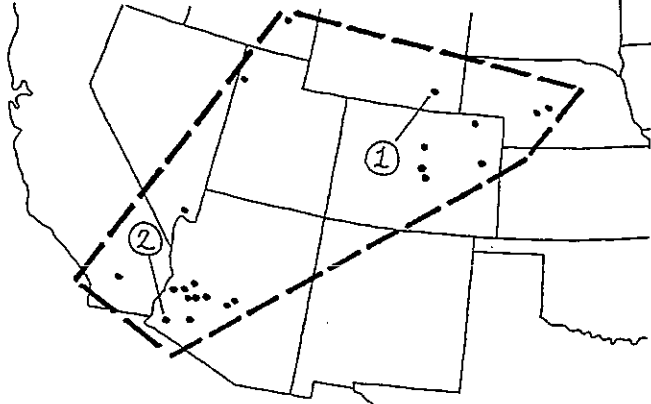


GOES 2PM CST July 23, 1990

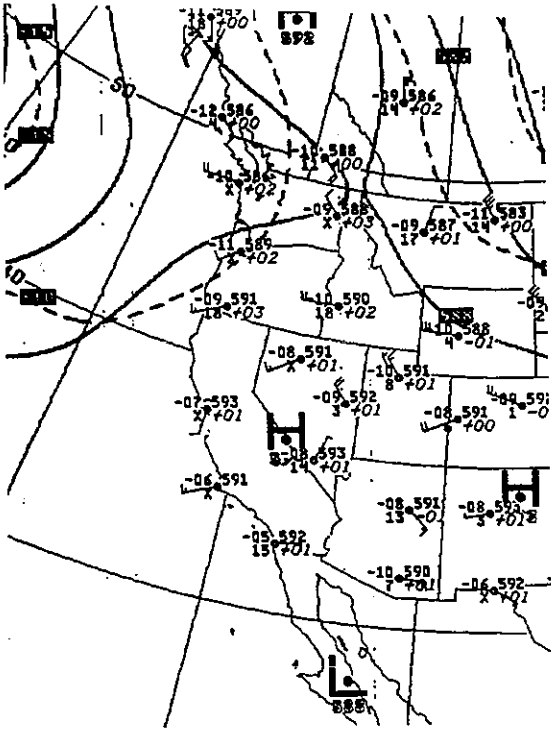
\*\*\*\*\*  
 AUGUST 11TH, 1990  
 \*\*\*\*\*

\*\*\* 19 SEVERE REPORTS \*\*\*  
 \*\*\* 1425-2135 CST \*\*\*

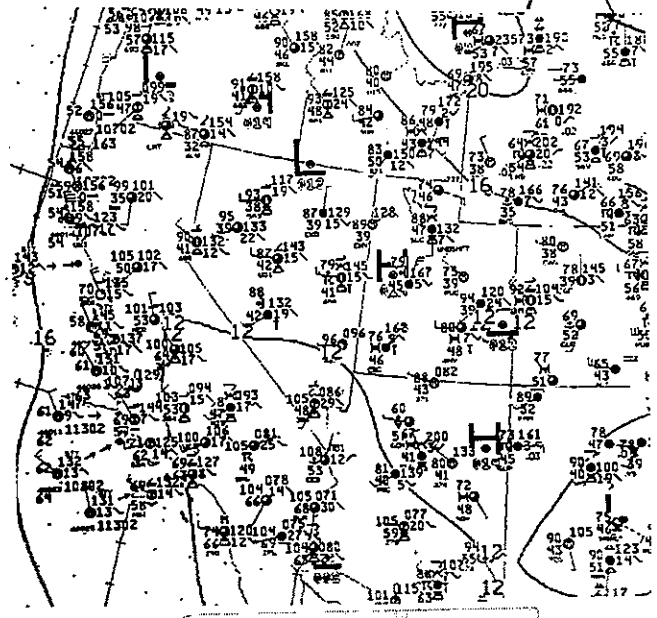
NO	TIME	EVENT	ST	LOCATION	
1	1425	2.00 INCH HAIL	WY	CHUGWATER	(41 N CYS)
2	2100	80 MPH WIND GUST more than half a million dollars damage	AZ	WELLTON	(27 E YUM)



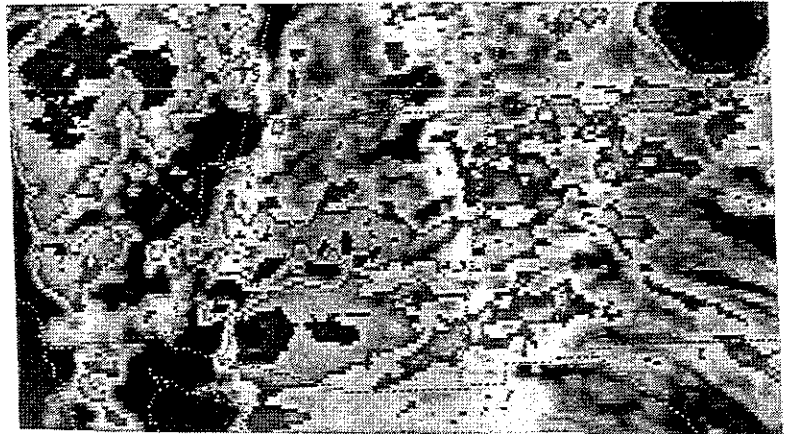
Composite 6PM CST August 11, 1990



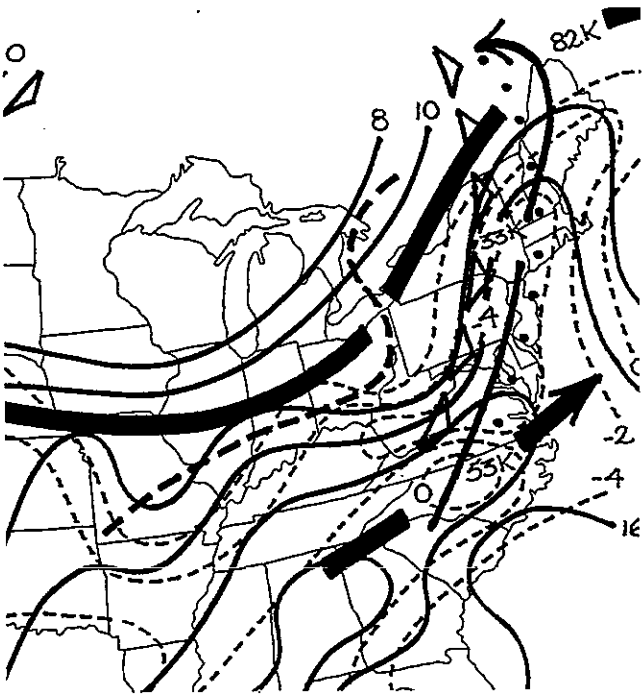
500MB 6PM CST August 11, 1990



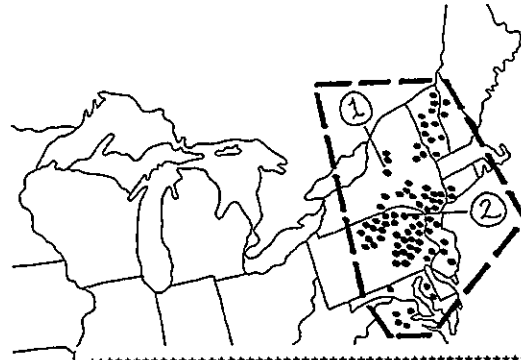
Surface 6PM CST August 11, 1990



GOES 6:30PM CST August 11, 1990



Composite 6PM CST August 13, 1990



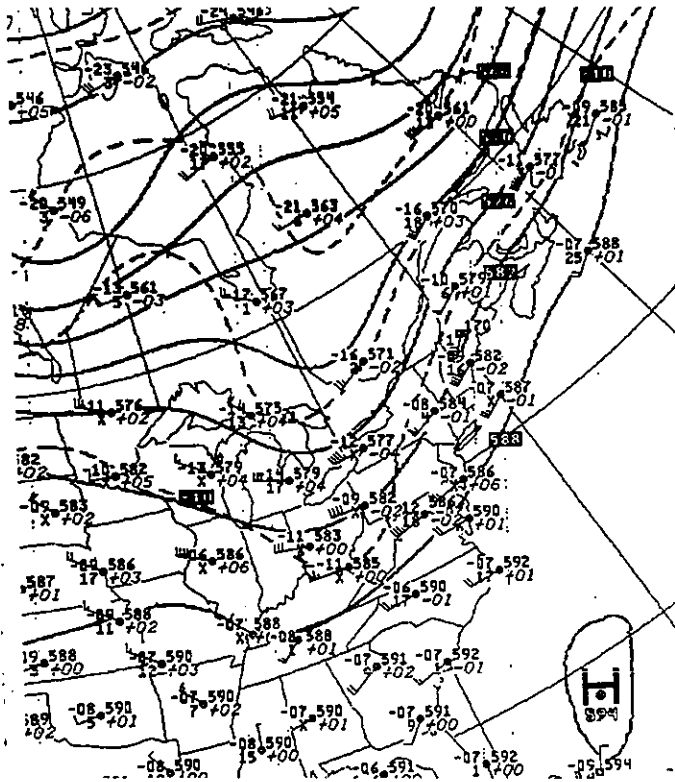
AUGUST 13TH, 1990

\*\*\* 115 SEVERE REPORTS \*\*\*

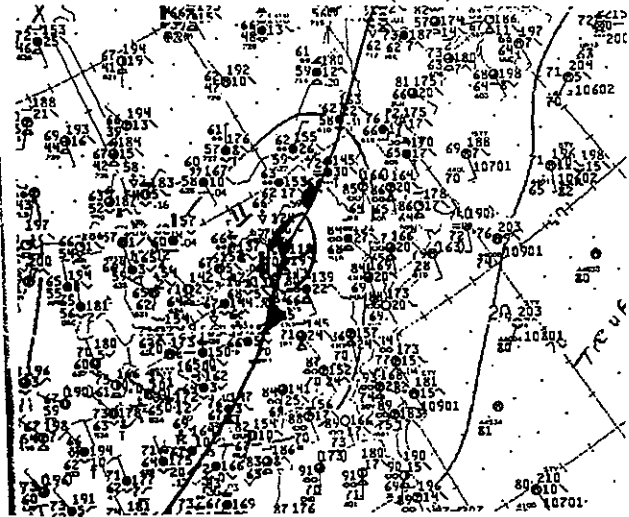
\*\*\* 1 TORNADO \*\*\*

\*\*\* 1300-2000 CST \*\*\*

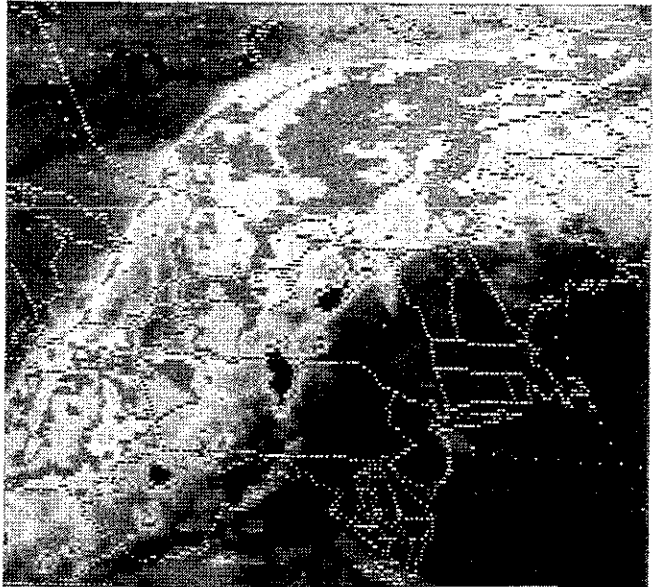
NO	TIME	EVENT	ST	LOCATION	
1	1430	WIND DAMAGE two injuries	NY	1 W CAZENOVIA	(19 ESE SYR)
2	1500	90 MPH WIND GUST	PA	HARDING	( 5 WNW AVP)



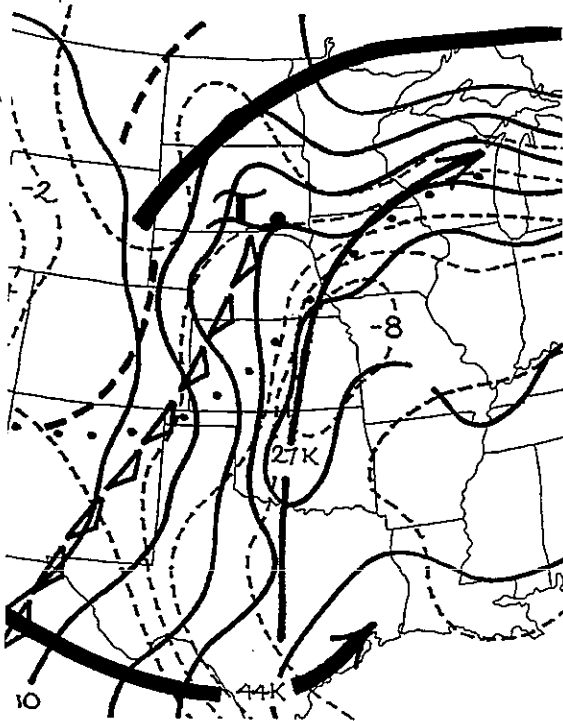
500MB 6PM CST August 13, 1990



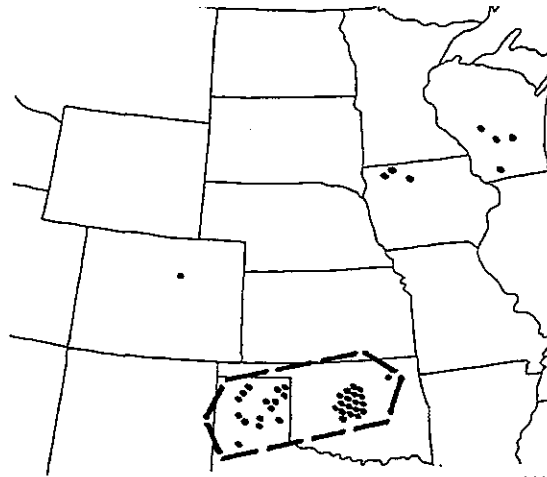
Surface 3PM CST August 13, 1990



GOES 1PM CST August 13, 1990

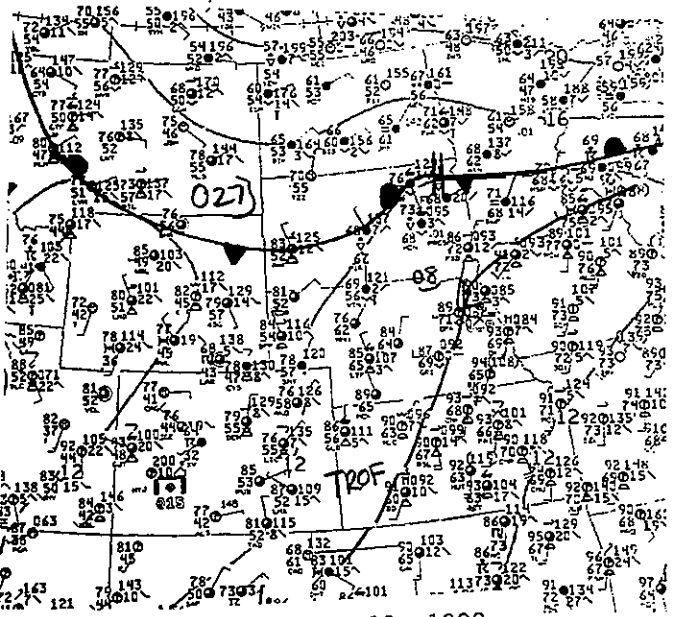


Composite 6PM CST August 18, 1990

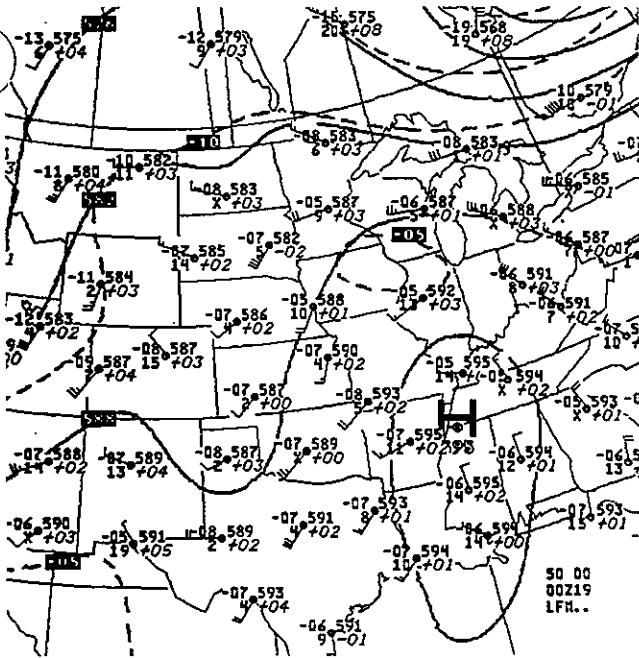


\*\*\*\*\*  
AUGUST 18TH, 1990  
\*\*\*\*\*

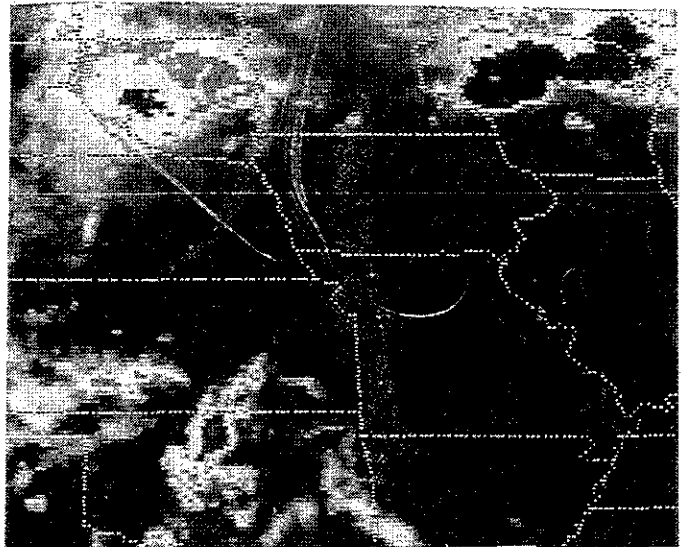
\*\*\* 38 SEVERE REPORTS \*\*\*  
\*\*\* 1500-2000 CST \*\*\*



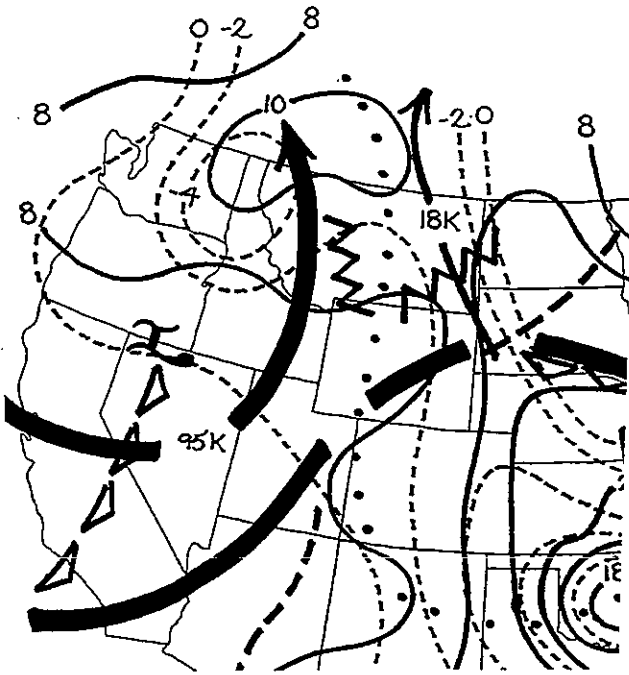
Surface 3PM CST August 18, 1990



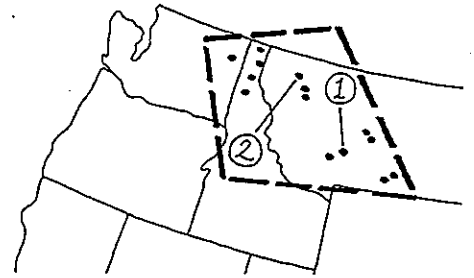
500MB 6PM CST August 18, 1990



GOES 3PM CST August 18, 1990



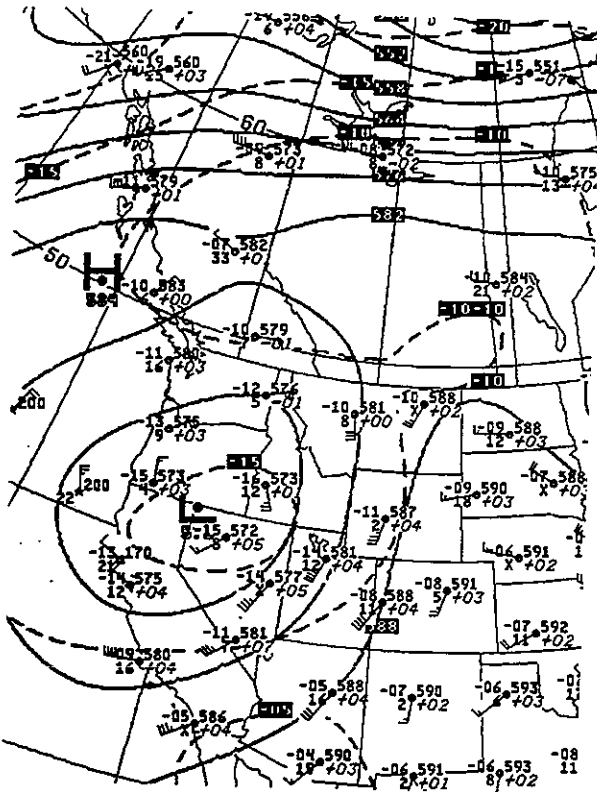
Composite 6PM CST August 20, 1990



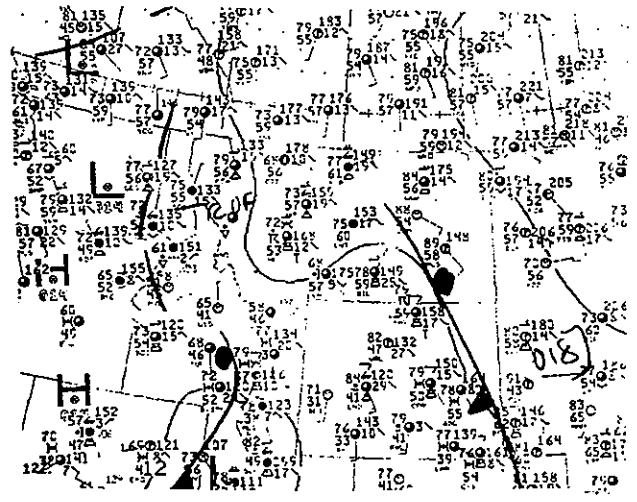
\*\*\*\*\*  
AUGUST 20TH, 1990  
\*\*\*\*\*

\*\*\* 12 SEVERE REPORTS \*\*\*  
\*\*\* 1500-2304 CST \*\*\*

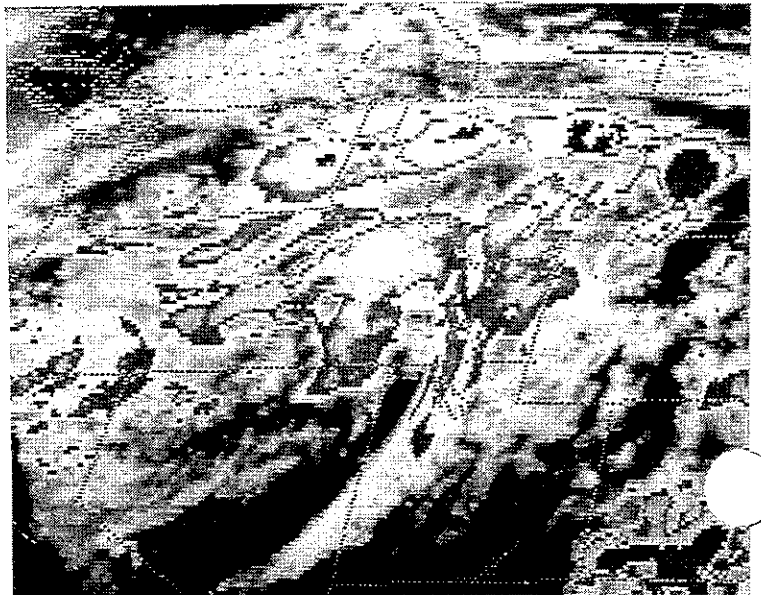
NO	TIME	EVENT	ST	LOCATION
1	1625	1.50 INCH HAIL	MT	MONARCH (35 SE GTF)
2	1728	69 MPH WIND GUST	MT	KALLSPELL ( FCA)



500MB 6PM CST August 20, 1990



Surface 3PM CST August 20, 1990



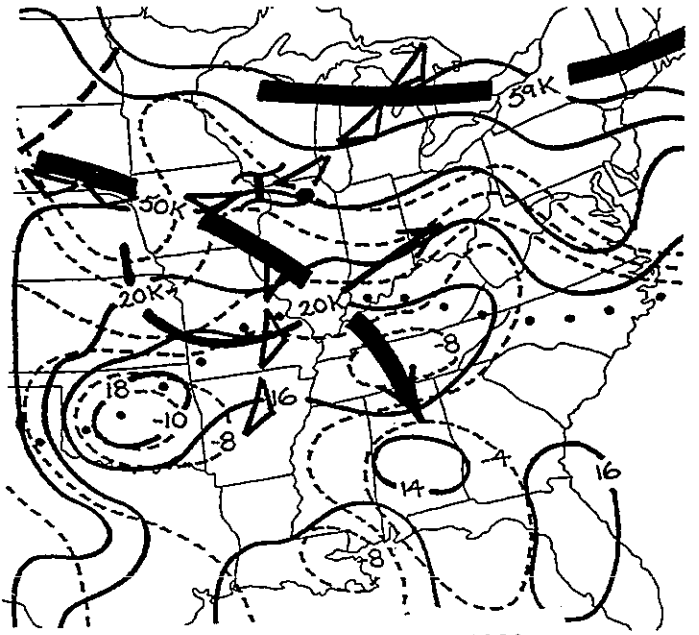
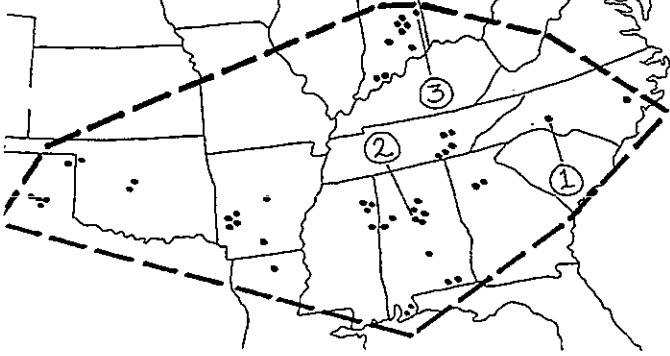
GOES 5PM CST August 20, 1990



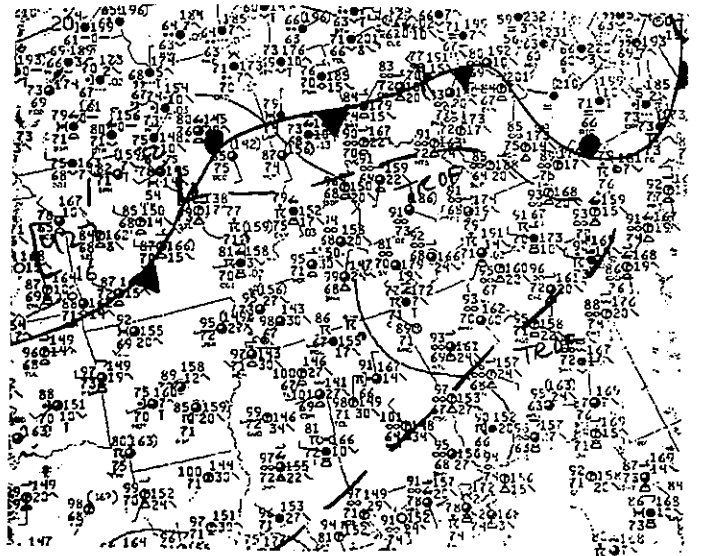
\*\*\*\*\*  
 AUGUST 20TH, 1990  
 \*\*\*\*\*

\*\*\* 59 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 1235-2315 CST \*\*\*

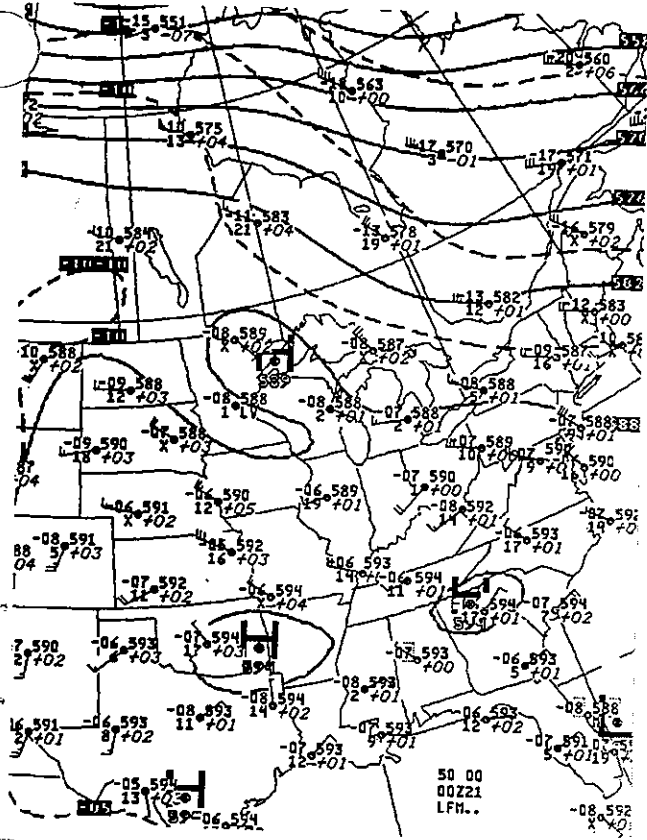
NO	TIME	EVENT	ST	LOCATION	
1	1513	67 MPH WIND GUST one injury	NC	CHARLOTTE	( CLT)
2	1515	75 MPH WIND GUST	AL	HOOVER	(17 SSW BHM)
3	1752	2.75 INCH HAIL	IN	LOSANTVILLE	(18 SE MIE)



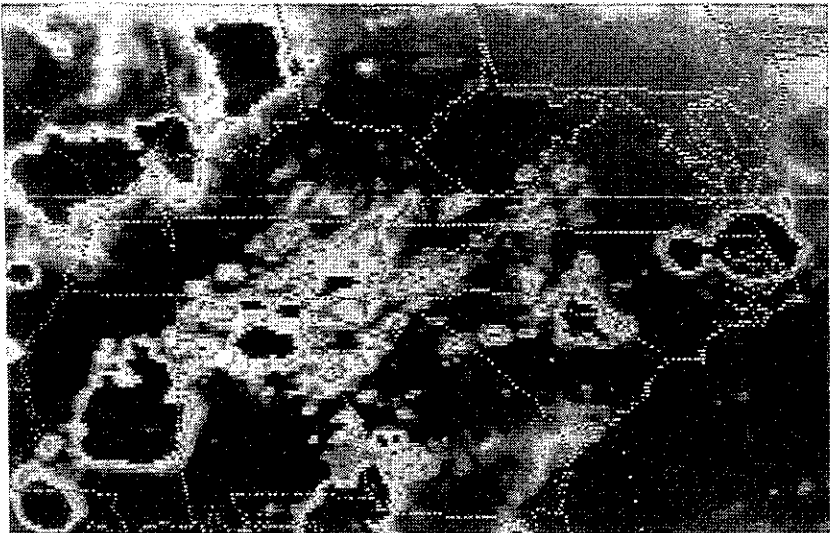
Composite 6PM CST August 20, 1990



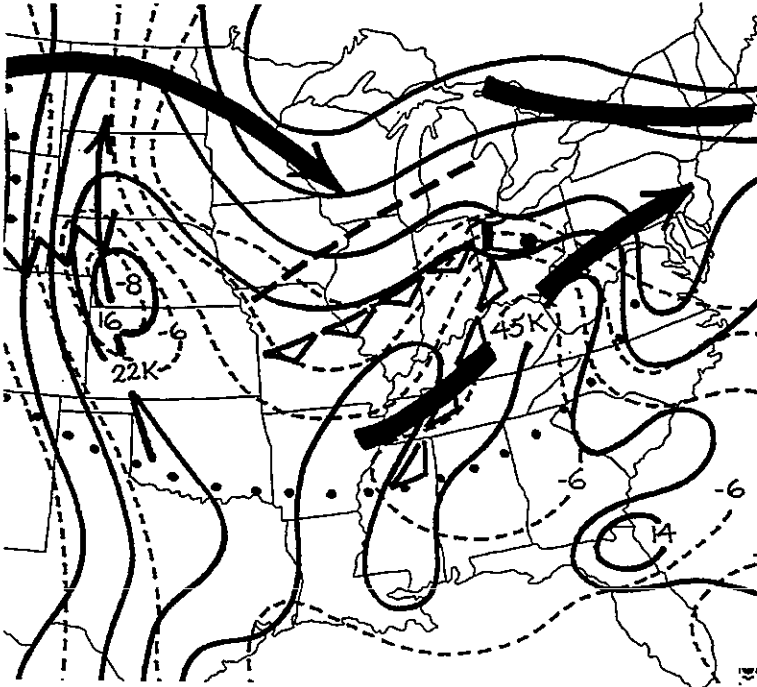
Surface 3PM CST August 20, 1990



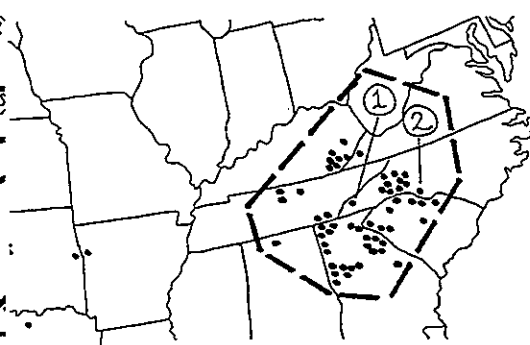
500MB 6PM CST August 20, 1990



GOES 3PM CST August 20, 1990



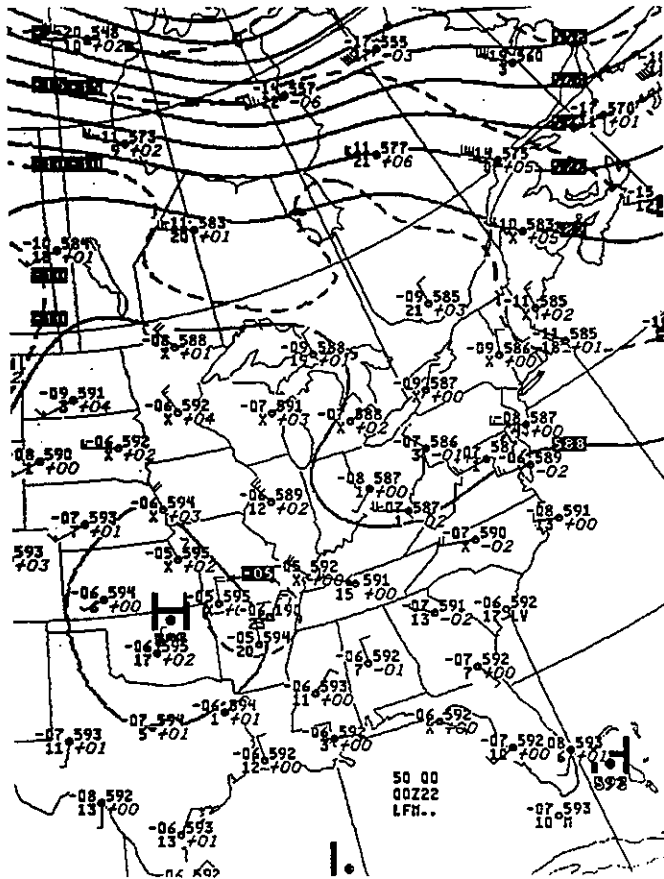
Composite 6PM CST August 21, 1990



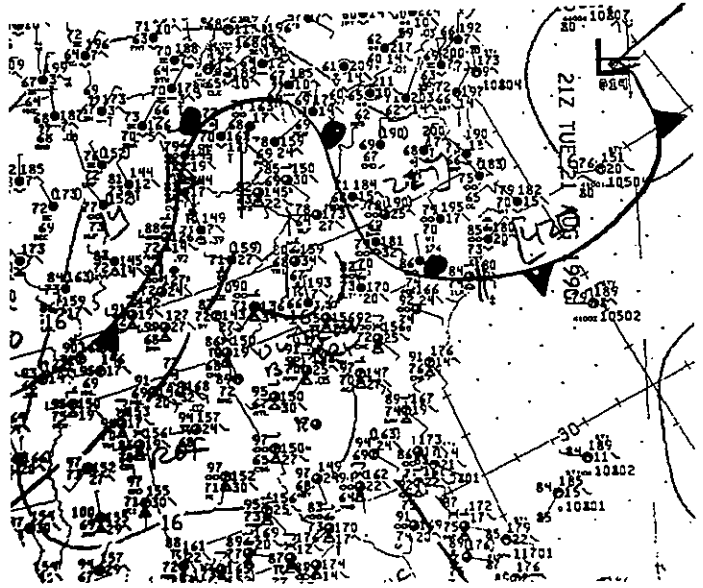
\*\*\*\*\* AUGUST 21ST, 1990 \*\*\*\*\*

\*\*\* 65 SEVERE REPORTS \*\*\*  
 \*\*\*\* 1300-2230 CST \*\*\*\*

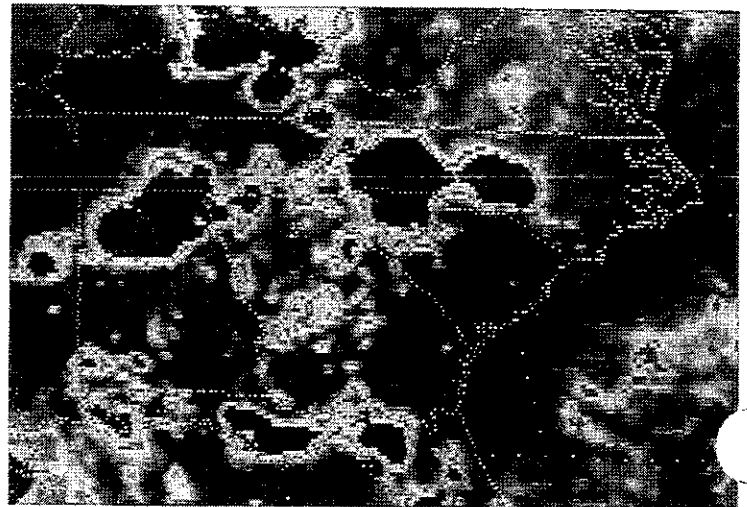
NO	TIME	EVENT	ST	LOCATION
1	1330	0.75 INCH HAIL one million dollars damage	NC	HENDERSONVILLE ( 8 SSE AVL)
2	1502	WIND DAMAGE one injury	NC	DALLAS (16 WNW CLT)



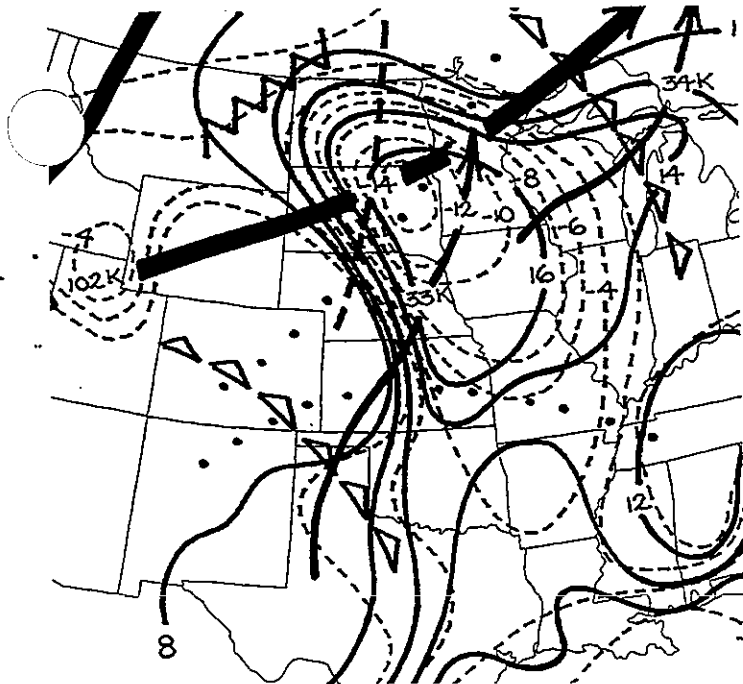
500MB 6PM CST August 21, 1990



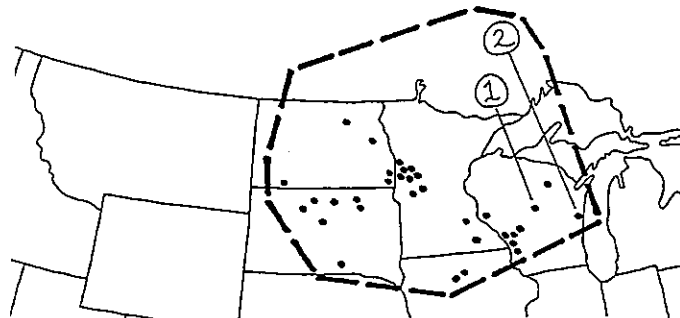
Surface 3PM CST August 21, 1990



GOES 3PM CST August 21, 1990



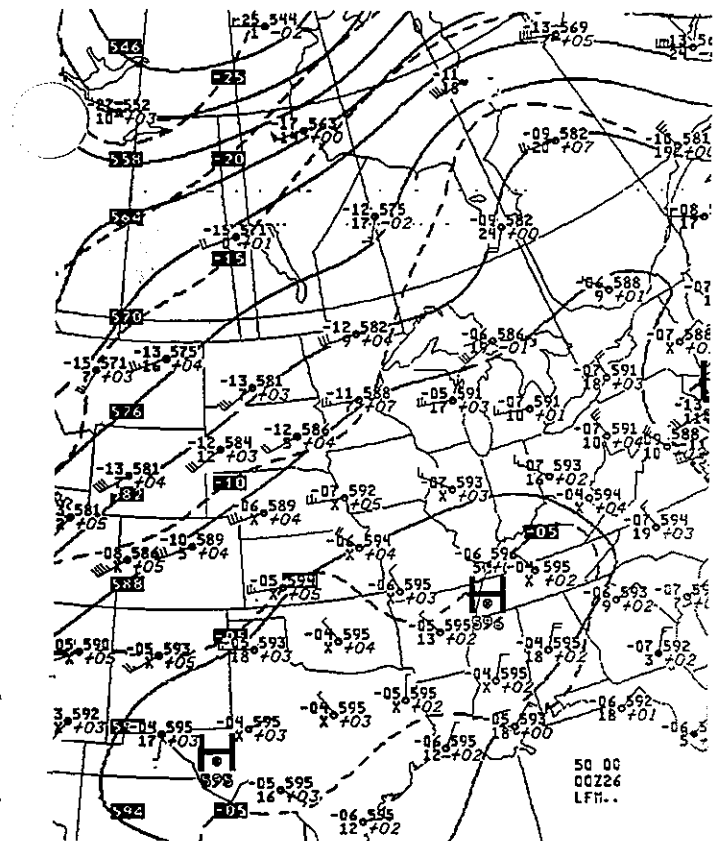
Composite 6PM CST August 25, 1990



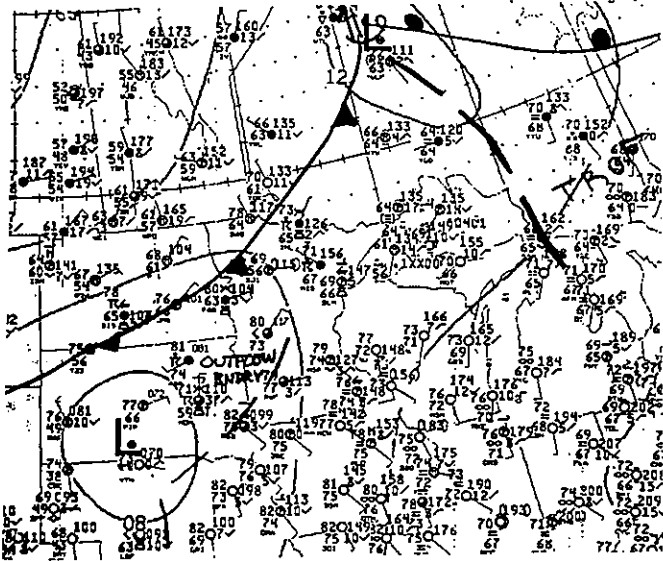
\*\*\*\*\*  
 AUGUST 25TH-26TH, 1990  
 \*\*\*\*\*

\*\*\* 73 SEVERE REPORTS \*\*\*  
 \*\*\* 1 TORNADO \*\*\*  
 \*\*\* 1620-1000 CST \*\*\*

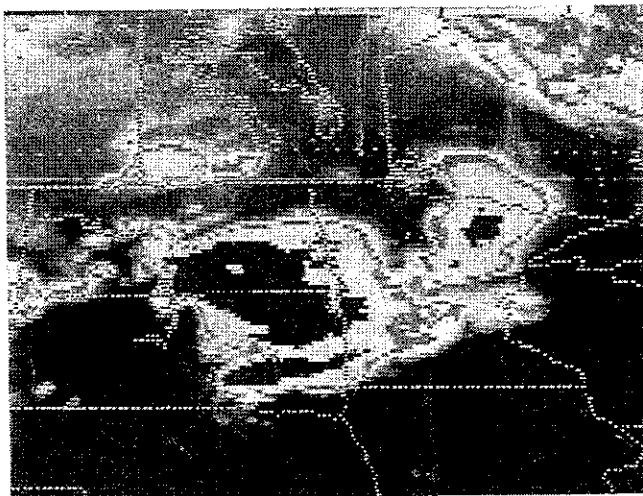
NO	TIME	EVENT	ST	LOCATION	
1	0415	91 MPH WIND GUST	WI	CLARK	(45 W AUV)
2	1000	WIND DAMAGE one injury	WI	MANITOWOC	( MTW)



500MB 6PM CST August 25, 1990



Surface 9PM CST August 25, 1990



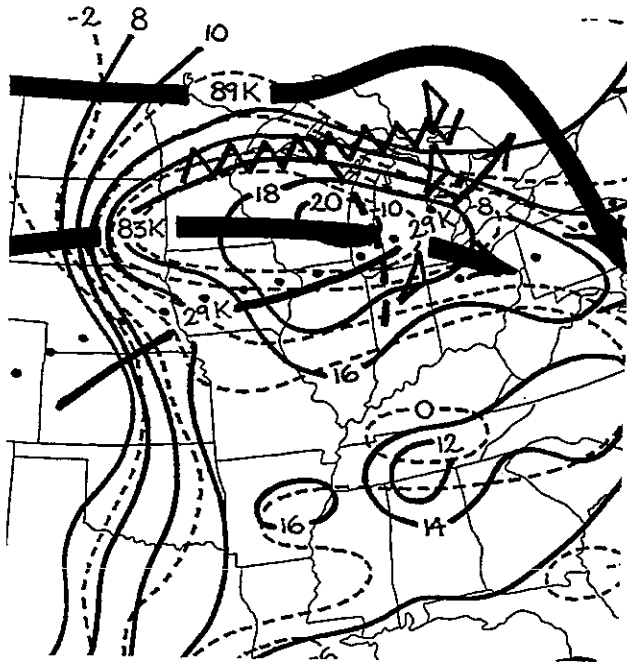
GOES 9PM CST August 25, 1990



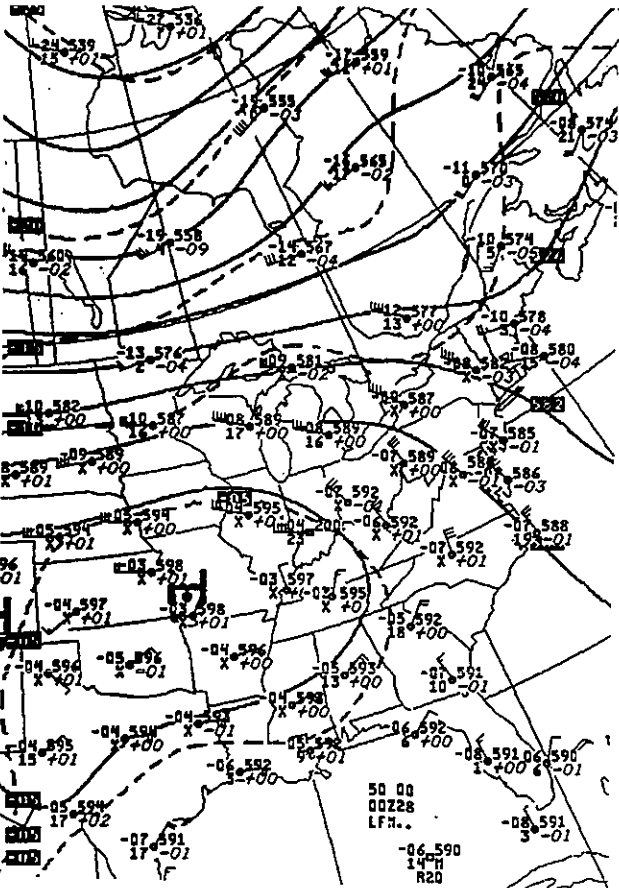
\*\*\*\*\*  
AUGUST 27TH-28TH, 1990  
\*\*\*\*\*

\*\*\* 78 SEVERE REPORTS \*\*\*  
\*\*\* 0715-0300 CST \*\*\*

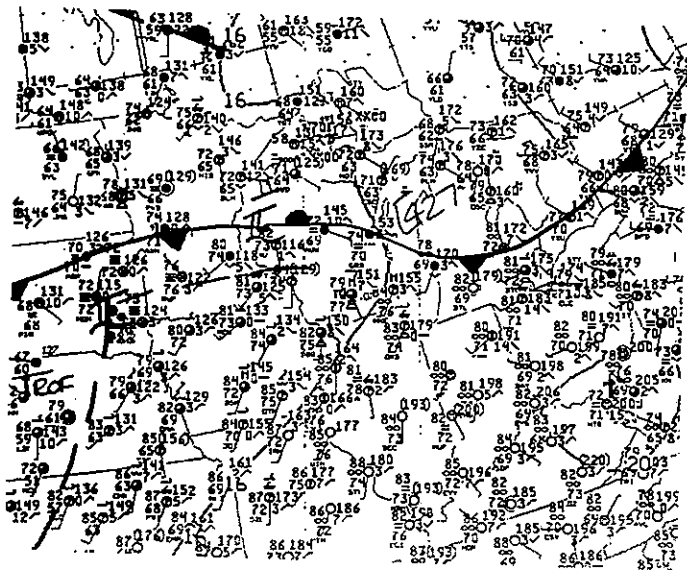
NO	TIME	EVENT	ST	LOCATION	
1	0800	4.50 INCH HAIL	ND	3 N DRAYTON	(45 N GFK)
2	0810	4.50 INCH HAIL one injury	MN	2 N ROBBIN	(44 N GFK)
3	1430	WIND DAMAGE twelve injuries	NY	NASSAU COUNTY	(13 SSE HPN)
4	1855	74 MPH WIND GUST	MI	STURGEON POINT	(18 NNE OSC)
5	2107	4.50 INCH HAIL	MN	3 NW ZIMMERMAN	(24 ESE STC)



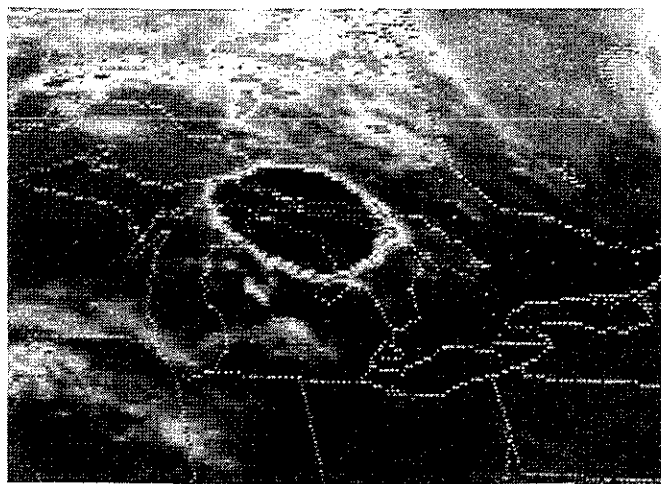
Composite 6PM CST August 27, 1990



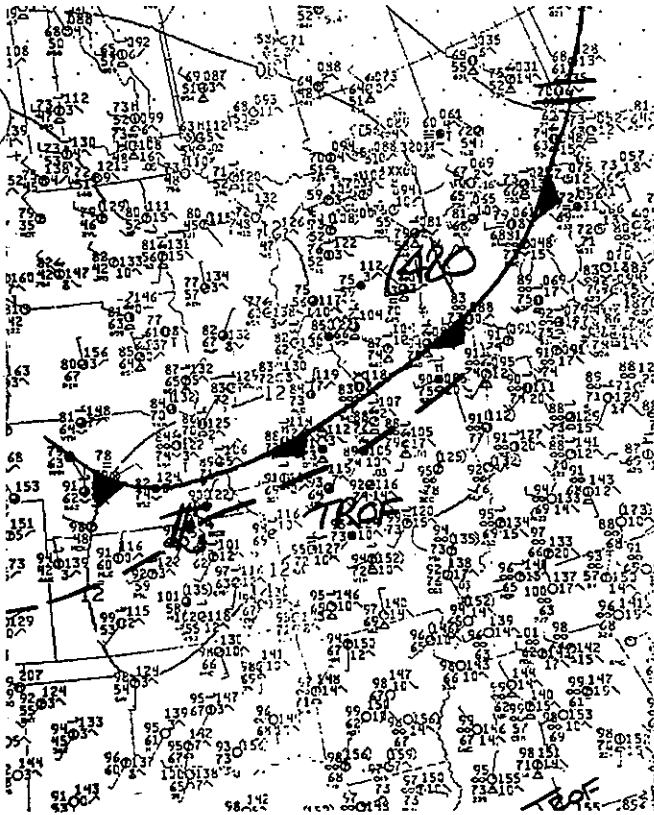
500MB 6PM CST August 27, 1990



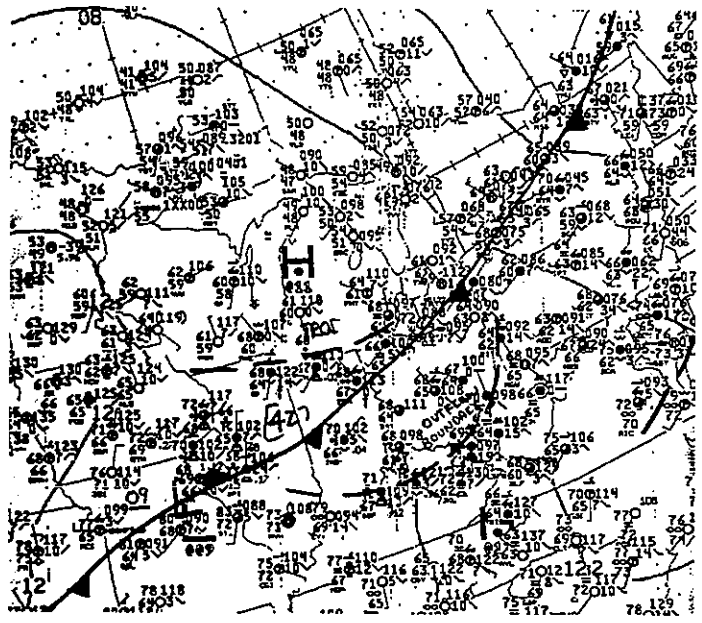
Surface 9AM CST August 27, 1990



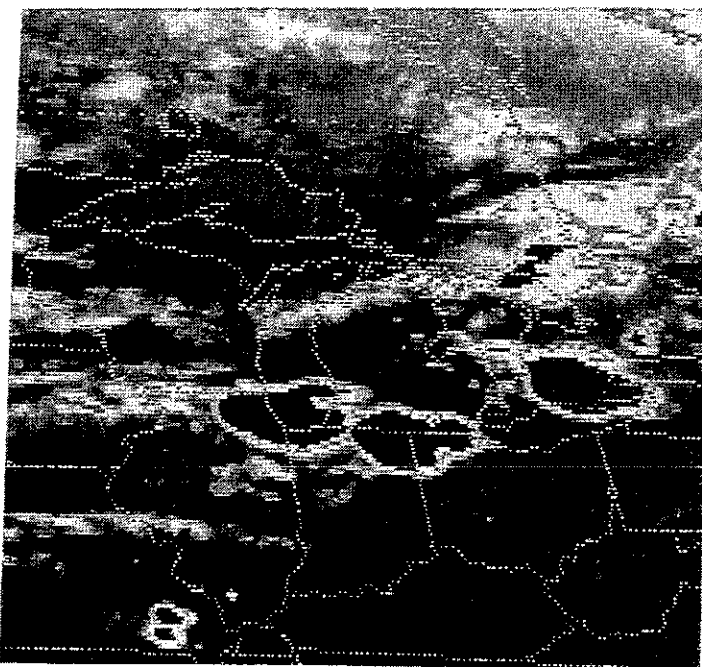
GOES 5PM CST August 27, 1990



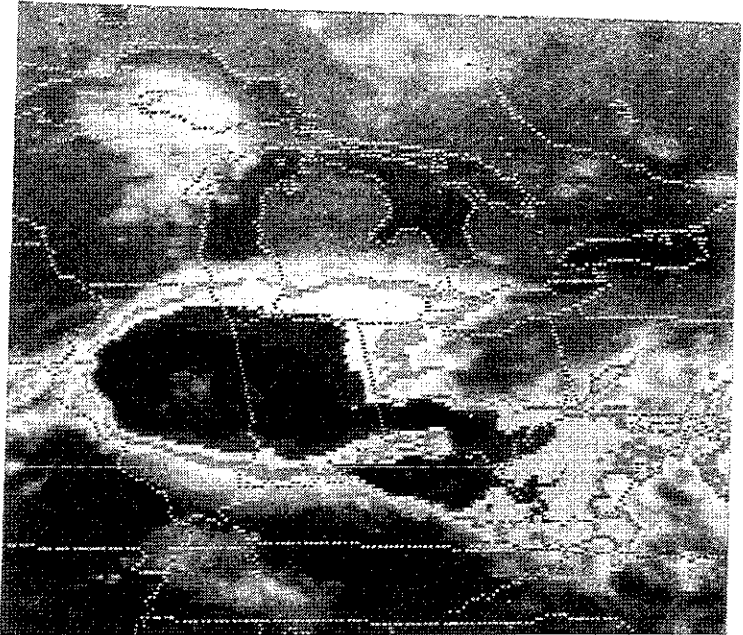
Surface 3PM CST August 28, 1990



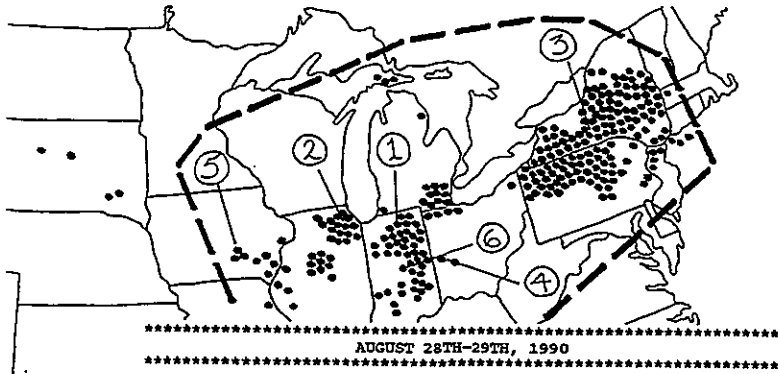
Surface 3AM CST August 29, 1990



GOES 4PM CST August 28, 1990



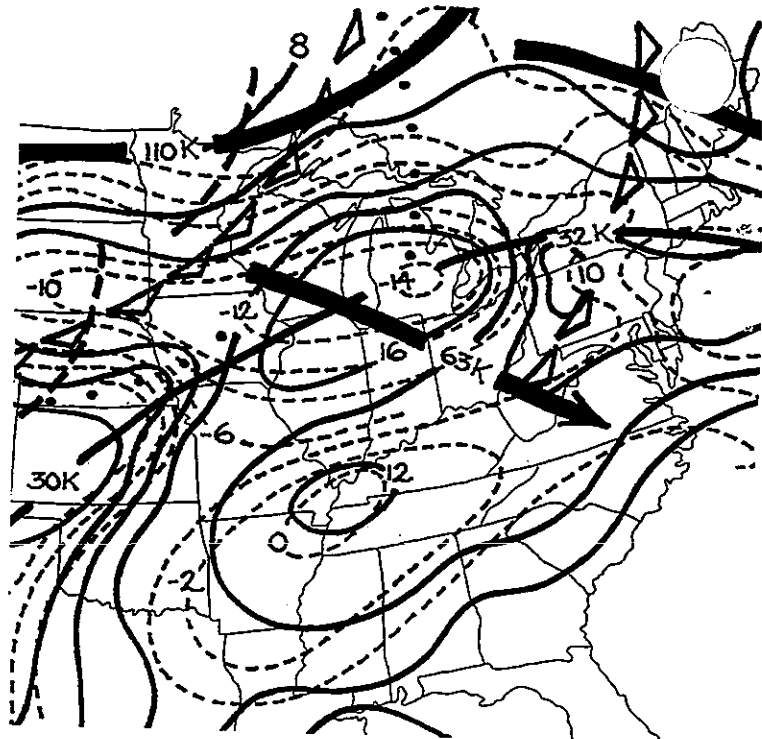
GOES 3AM CST August 29, 1990



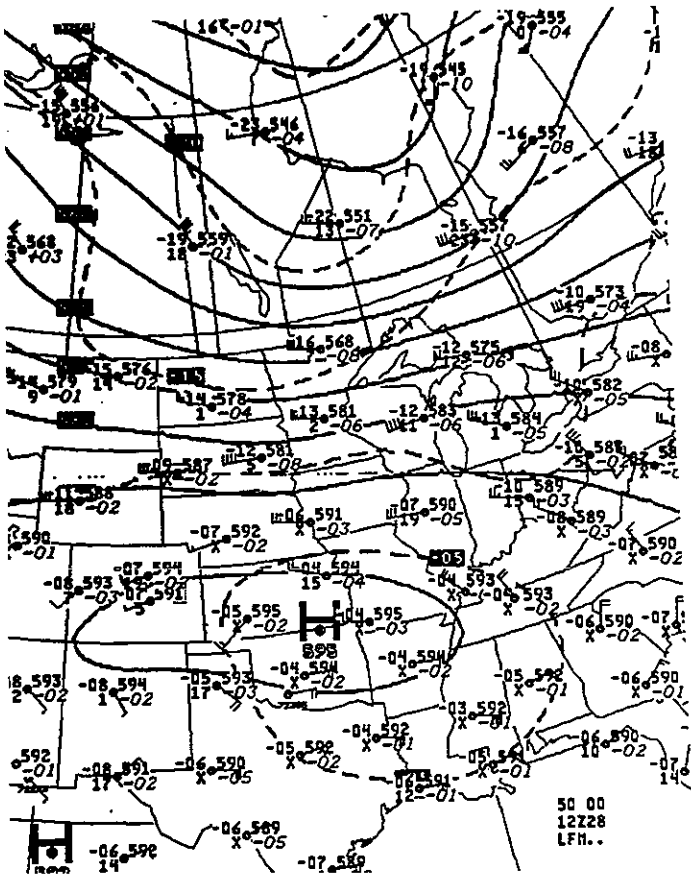
\*\*\*\*\*  
 AUGUST 28TH-29TH, 1990  
 \*\*\*\*\*

\*\*\* 314 SEVERE REPORTS \*\*\*  
 \*\*\* 9 TORNADOES \*\*\*  
 \*\*\* 1045-0445 CST \*\*\*

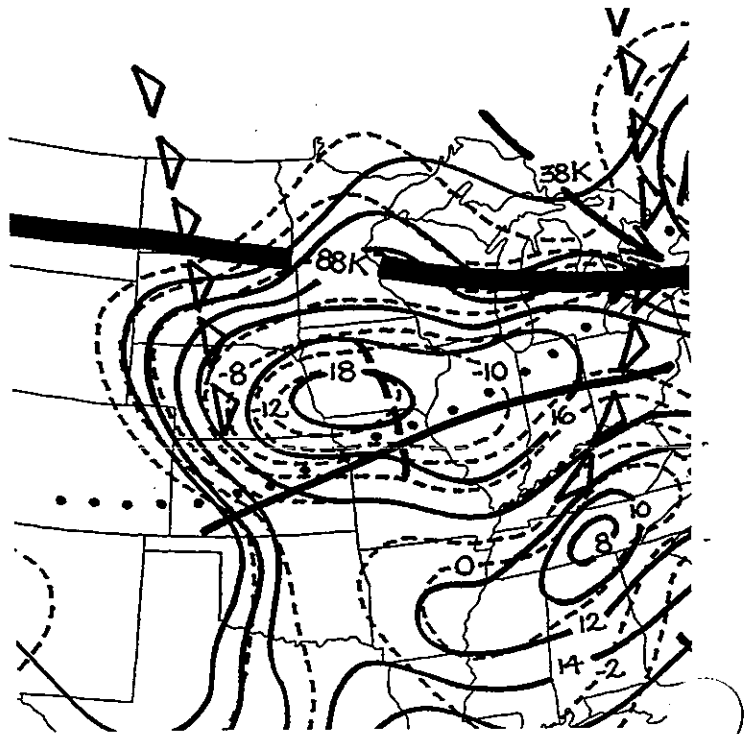
NO	TIME	EVENT	ST	LOCATION	
1	1318	WIND DAMAGE one death, one injury	IN	5 S SOUTH BEND	( 5 S SBN)
2	1430	TORNADO (F-5) 29 deaths, 350 injuries, 165 million dollars damage, one half mile width, 16.4 mile path from Oswego to Joliet	IL	PLAINFIELD	(26 WSW MDW)
3	1720	TORNADO (F-2)	NY	HECTOR	(23 N ELM)
4	1823	96 MPH WIND GUST	OH	ANSONIA	(31 NW DAY)
5	2326	4.50 INCH HAIL	IA	FREMONT	( 8 N OTM)
6	0405	97 MPH WIND GUST	IN	MARTINSVILLE	(22 SSW IND)



Composite 6AM CST August 28, 1990



500MB 6AM CST August 28, 1990

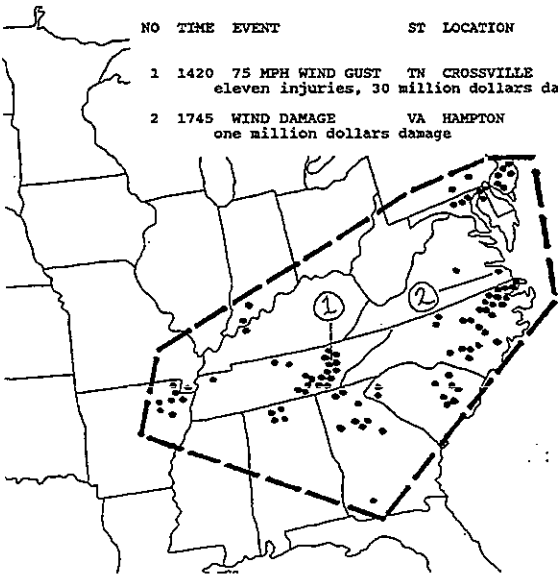


Composite 6PM CST August 28, 1990

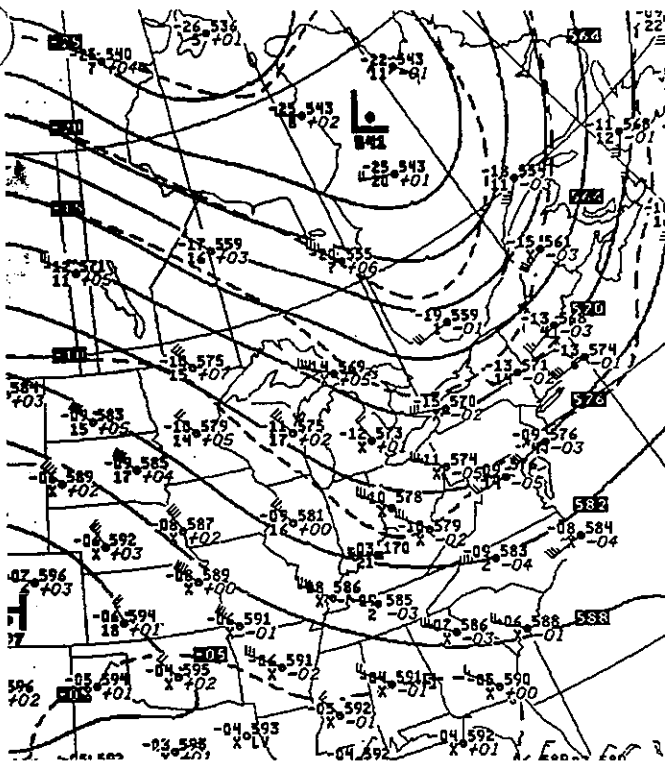
\*\*\*\*\*  
 AUGUST 29TH, 1990  
 \*\*\*\*\*

\*\*\* 112 SEVERE REPORTS \*\*\*  
 \*\*\* 1 TORNADO \*\*\*  
 \*\*\* 1215-2255 CST \*\*\*

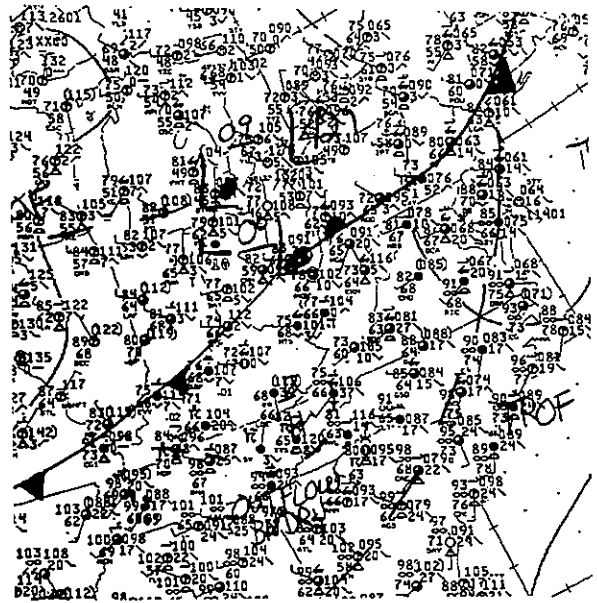
NO	TIME	EVENT	ST	LOCATION	
1	1420	75 MPH WIND GUST	TN	CROSSVILLE	(CSV)
				eleven injuries, 30 million dollars damage	
2	1745	WIND DAMAGE	VA	HAMPTON	(LFI)
				one million dollars damage	



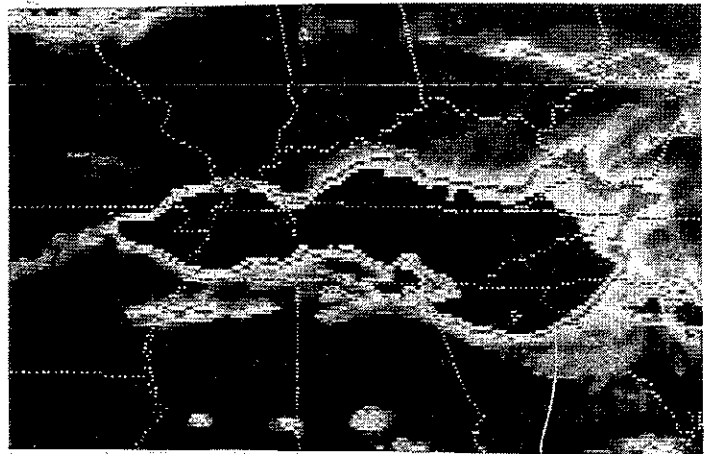
Composite 6PM CST August 29, 1990



500MB 6PM CST August 29, 1990



Surface 3PM CST August 29, 1990

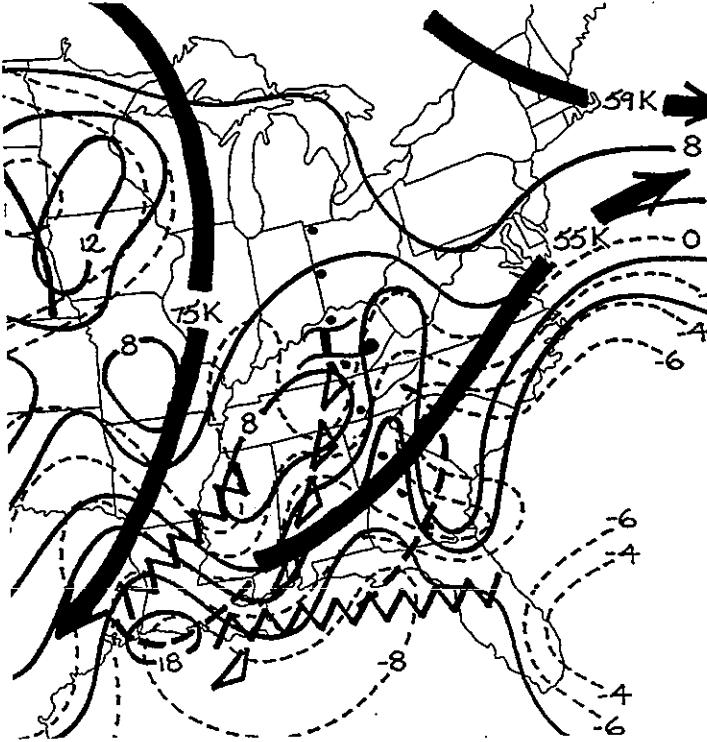


GOES 5PM CST August 29, 1990

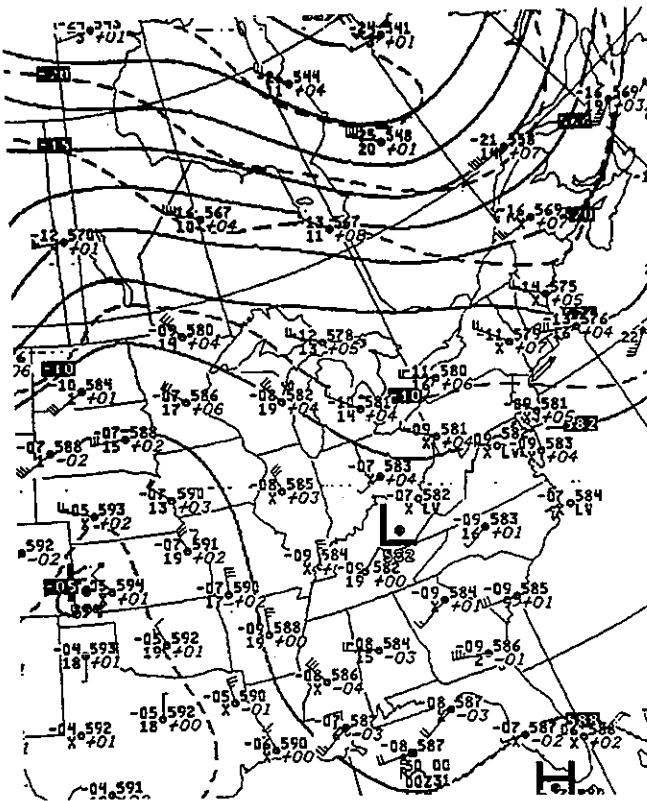
\*\*\*\*\*  
 AUGUST 30TH, 1990  
 \*\*\*\*\*

\*\*\* 64 SEVERE REPORTS \*\*\*  
 \*\*\* 0700-2255 CST \*\*\*

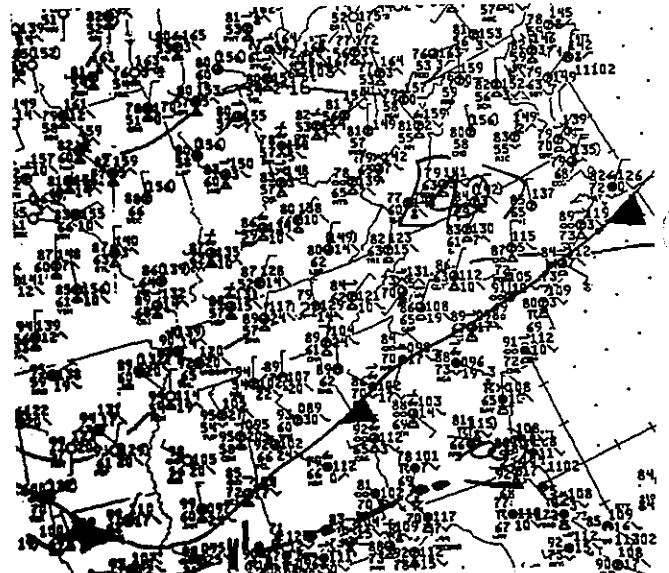
NO	TIME	EVENT	ST	LOCATION
1	1655	71 MPH WIND GUST	LA	LAKE PONTCHARTRAIN ( 9 NE MSY)
2	1900	2.50 INCH HAIL	SC	FLORENCE ( FLO)



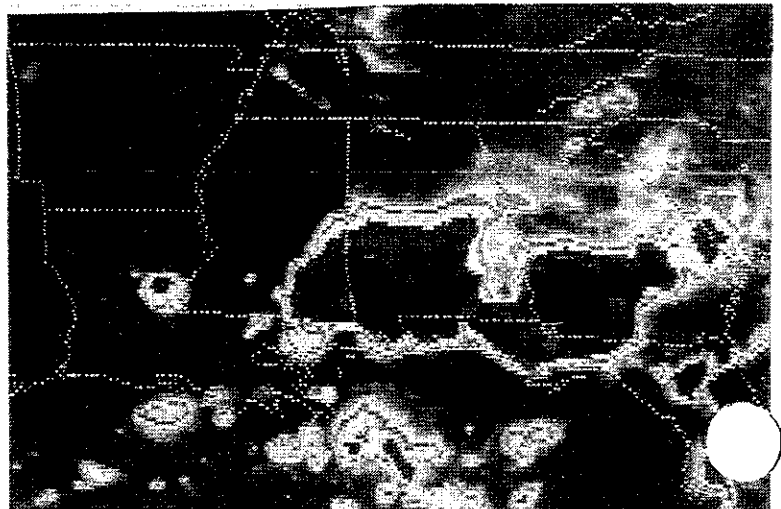
Composite 6PM CST August 30, 1990



500MB 6PM CST August 30, 1990

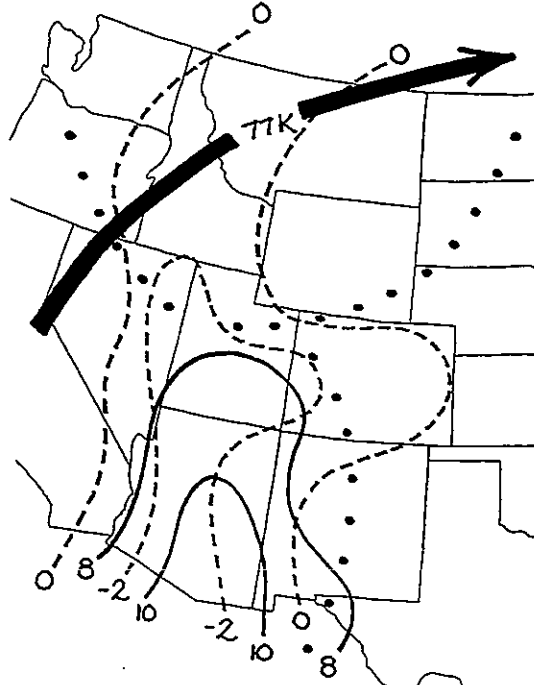


Surface 3PM CST August 30, 1990



GOES 2PM CST August 30, 1990



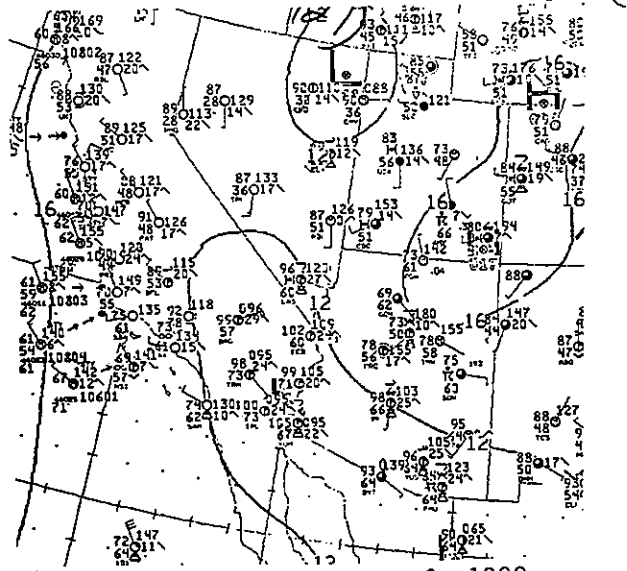
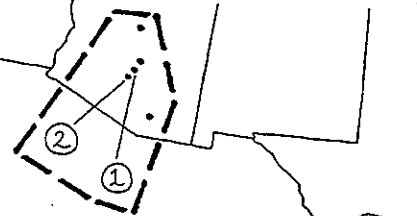


Composite 6PM CST September 3, 1990

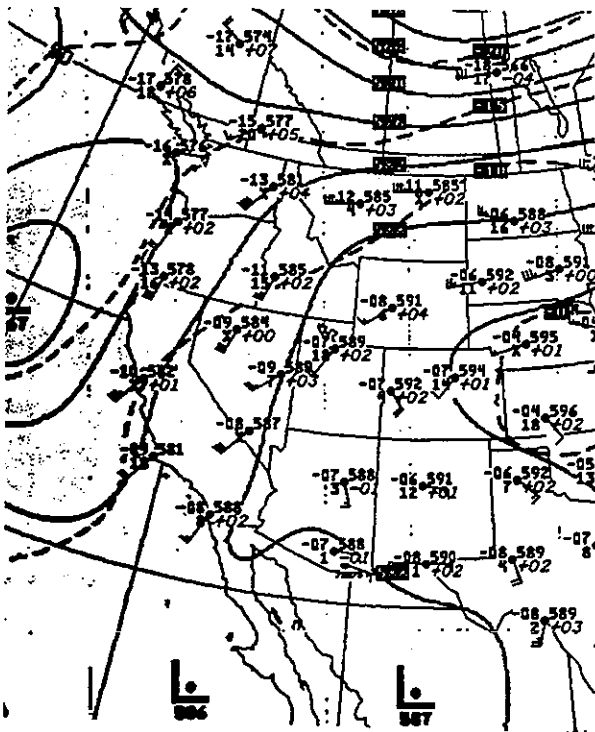
\*\*\*\*\*  
 SEPTEMBER 3RD, 1990  
 \*\*\*\*\*

\*\*\* 5 SEVERE REPORTS \*\*\*  
 \*\*\* 1 TORNADO \*\*\*  
 \*\*\* 1420-1835 CST \*\*\*

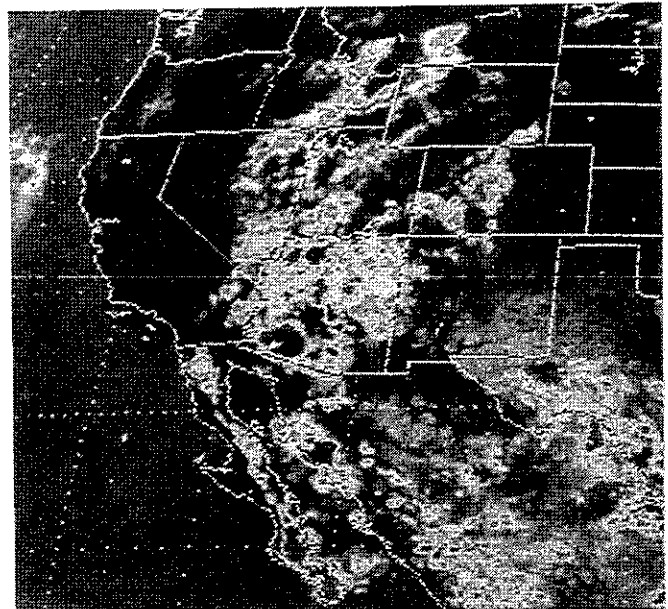
NO	TIME	EVENT	ST	LOCATION	
1	1630	80 MPH WIND GUST	AZ	APACHE JUNCTION	(26 E PHX)
2	1900	WIND DAMAGE	AZ	GLENDALE	(12 WNW PHX)
		more than half a million dollars damage			



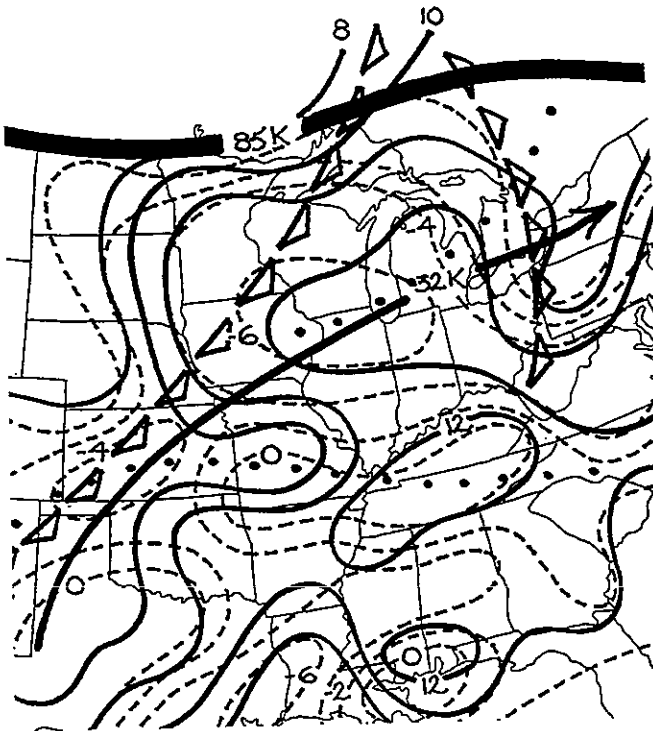
Surface 3PM CST September 3, 1990



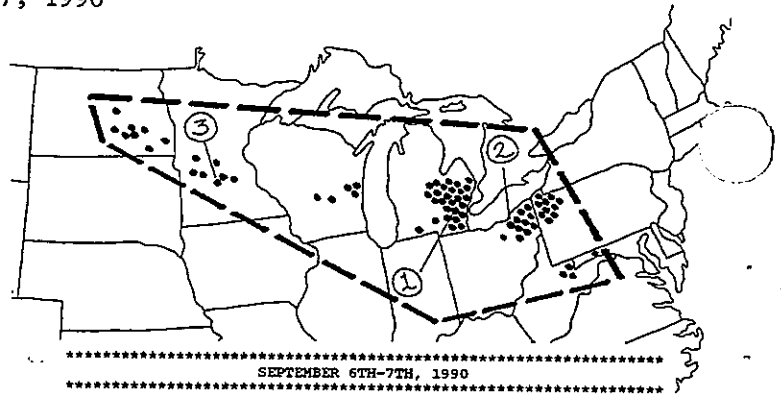
500MB 6PM CST September 3, 1990



GOES 5PM CST September 3, 1990



Composite 6PM CST September 6, 1990



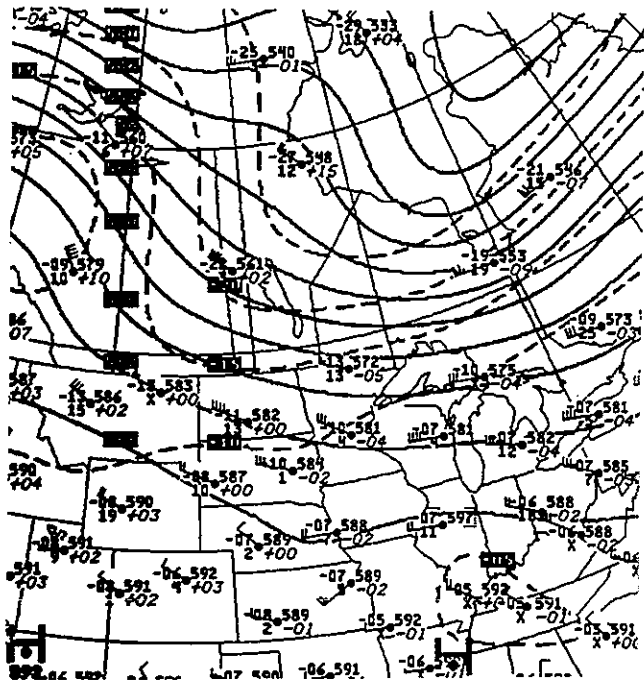
\*\*\*\*\*  
 SEPTEMBER 6TH-7TH, 1990  
 \*\*\*\*\*

\*\*\* 73 SEVERE REPORTS \*\*\*

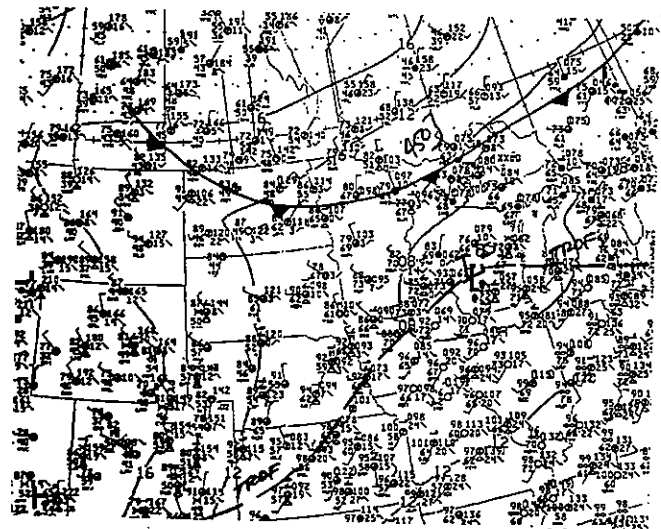
\*\*\* 7 TORNADOES \*\*\*

\*\*\* 0655-0420 CST \*\*\*

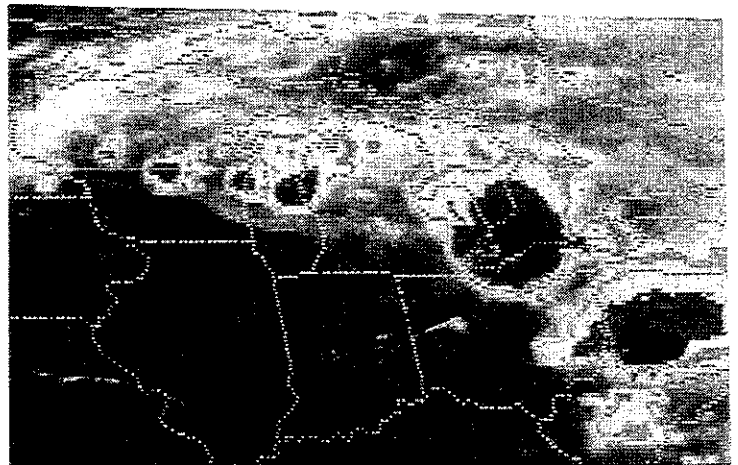
NO	TIME	EVENT	ST	LOCATION	
1	1628	WIND DAMAGE one death, four injuries	MI	ROCHESTER HILLS	(19 NNW DTW)
2	1815	WIND DAMAGE three deaths, three injuries	OH	CLEVELAND HAROR	(CLE)
3	0455	2.00 INCH HAIL 70 MPH WIND GUSTS	MN	WILLMAR	(40 N RWF)



500MB 6PM CST September 6, 1990



Surface 3PM CST September 6, 1990



GOES 5PM CST September 6, 1990

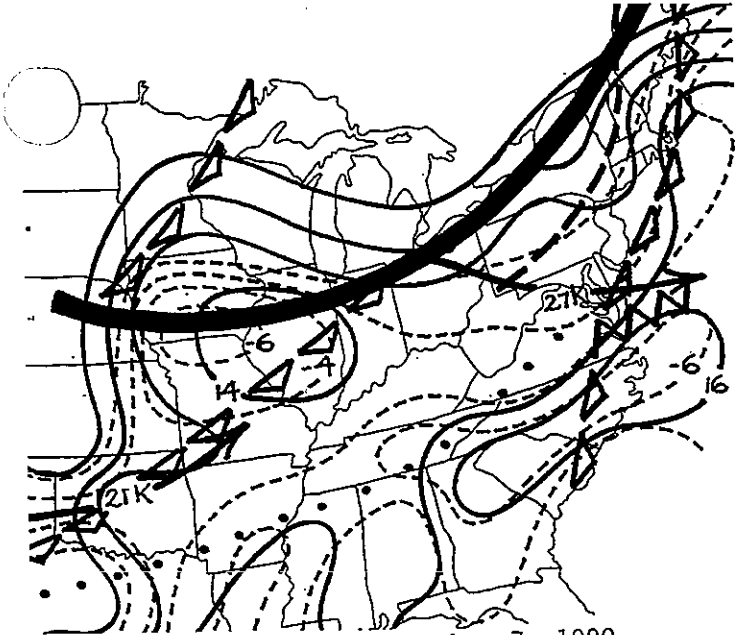
\*\*\*\*\*  
 SEPTEMBER 7TH-8TH, 1990  
 \*\*\*\*\*

\*\*\* 61 SEVERE REPORTS \*\*\*

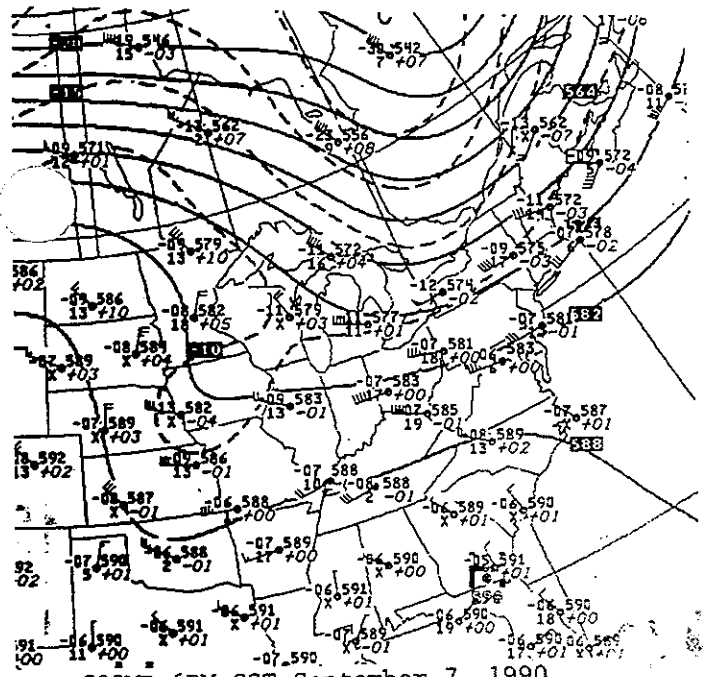
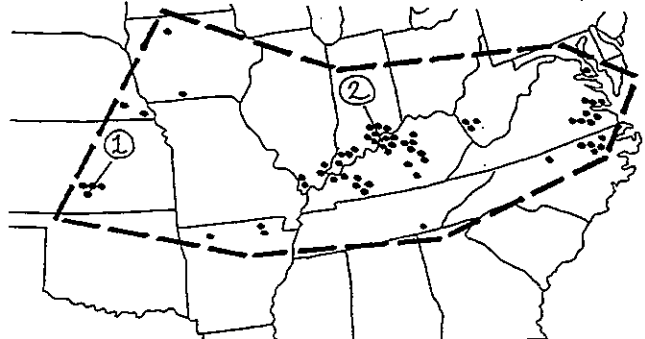
\*\*\* 1 TORNADO \*\*\*

\*\*\* 1032-0315 CST \*\*\*

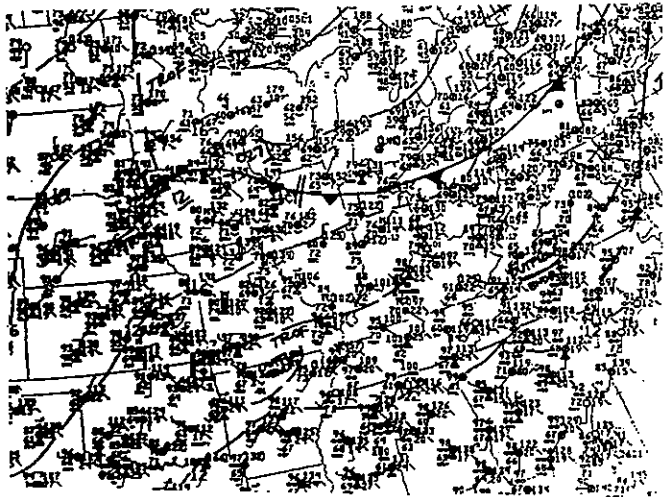
NO	TIME	EVENT	ST	LOCATION		
1	1525	2.00 INCH HAIL 66 MPH WIND GUST	KS	NW WICHITA	(	ICT)
2	2140	80 MPH WIND GUST	KY	LOUISVILLE	(	SDF)



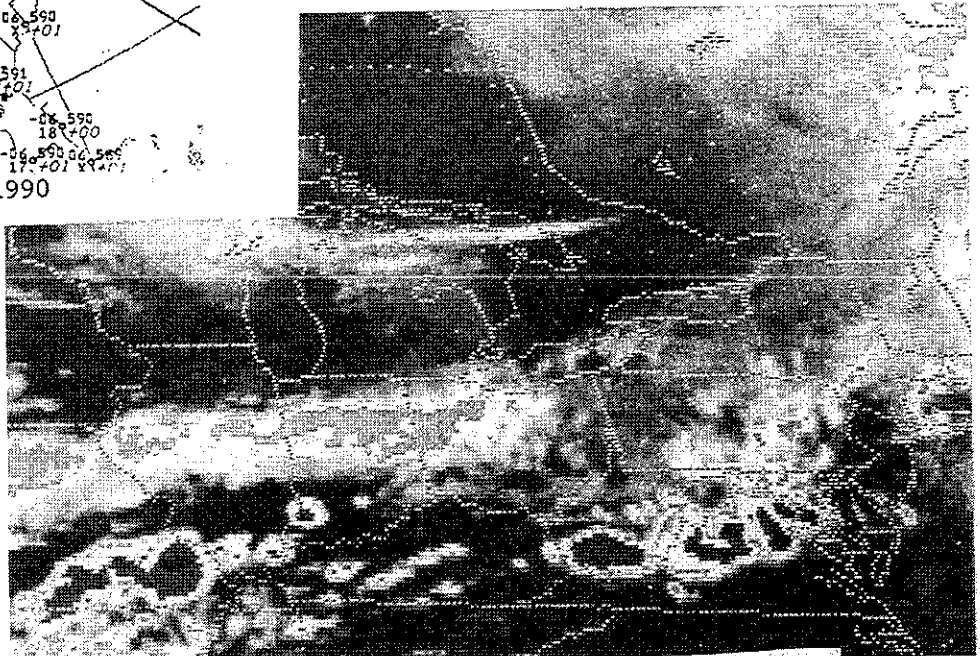
Composite 6PM CST September 7, 1990



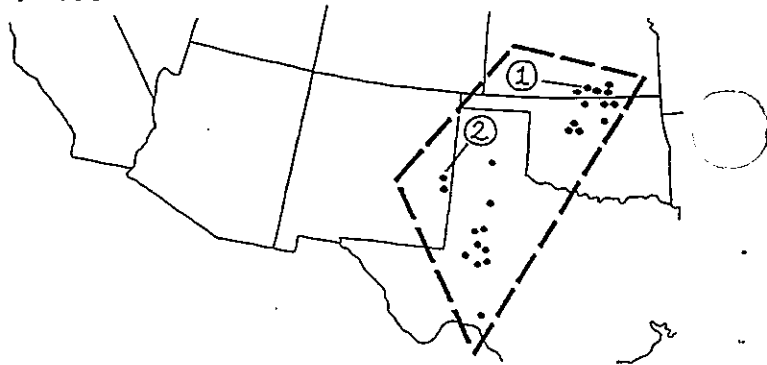
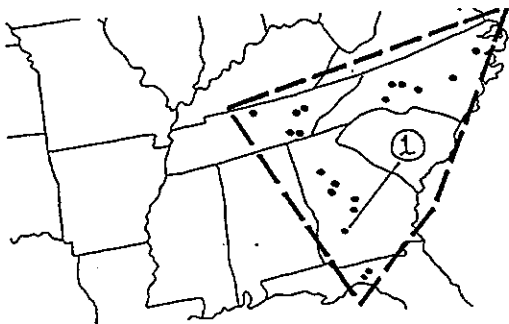
500MB 6PM CST September 7, 1990



Surface 3PM CST September 7, 1990



GOES 2PM CST September 7, 1990



\*\*\*\*\*  
 SEPTEMBER 10TH, 1990  
 \*\*\*\*\*

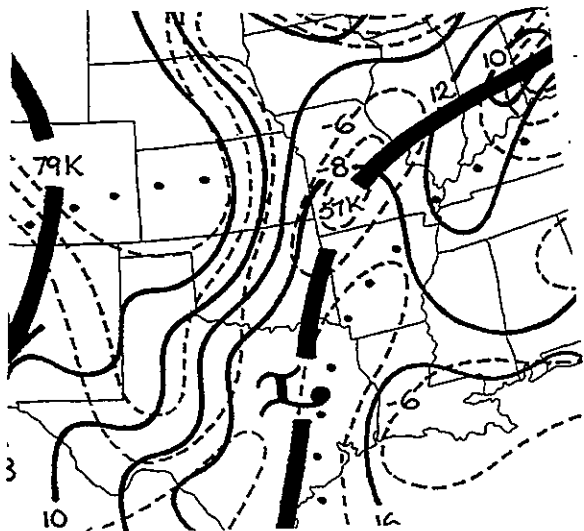
\*\*\* 20 SEVERE REPORTS \*\*\*  
 \*\*\* 1255-2050 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION
1	1420	WIND DAMAGE four injuries	GA	ALBANY

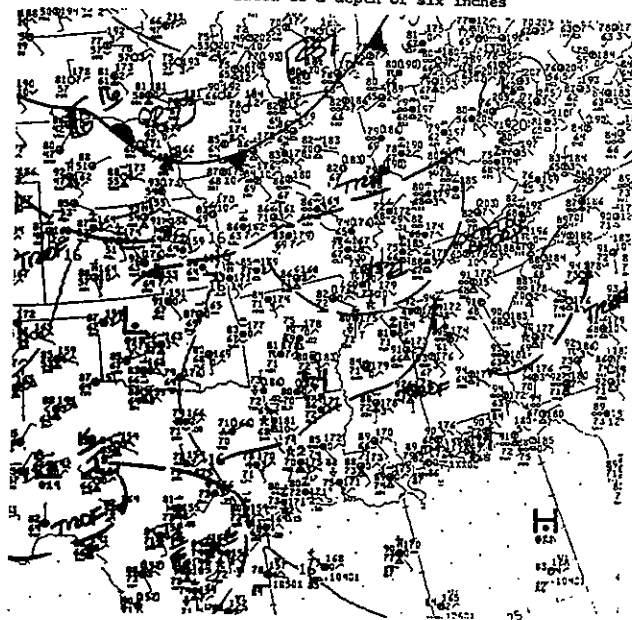
\*\*\*\*\*  
 SEPTEMBER 10TH, 1990  
 \*\*\*\*\*

\*\*\* 24 SEVERE REPORTS \*\*\*  
 \*\*\* 1315-2216 CST \*\*\*

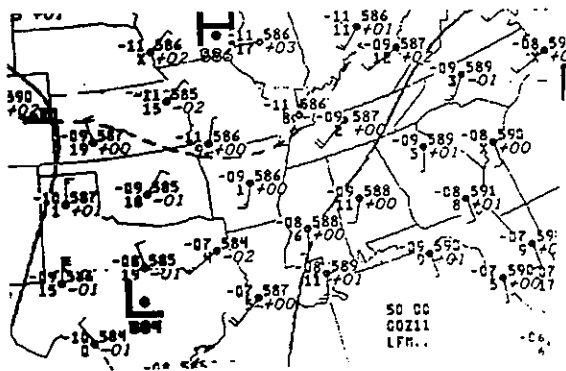
NO	TIME	EVENT	ST	LOCATION	
1	1611	2.00 INCH HAIL	KS	4 SE WINFIELD	(36 SE ICT)
2	2130	1.75 INCH HAIL hail accumulated to a depth of six inches	NM	N PORTALES	(13 S CVS)



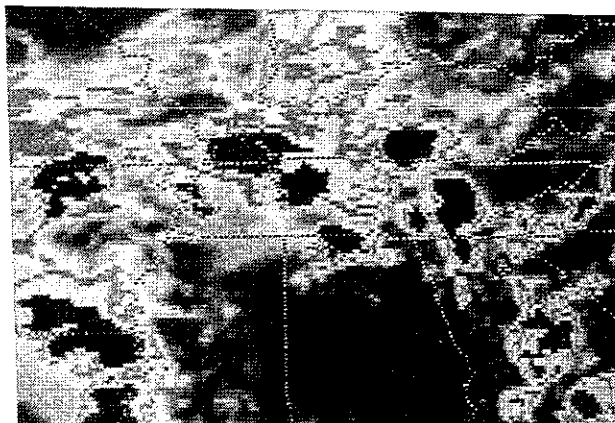
Composite 6PM CST September 10, 1990



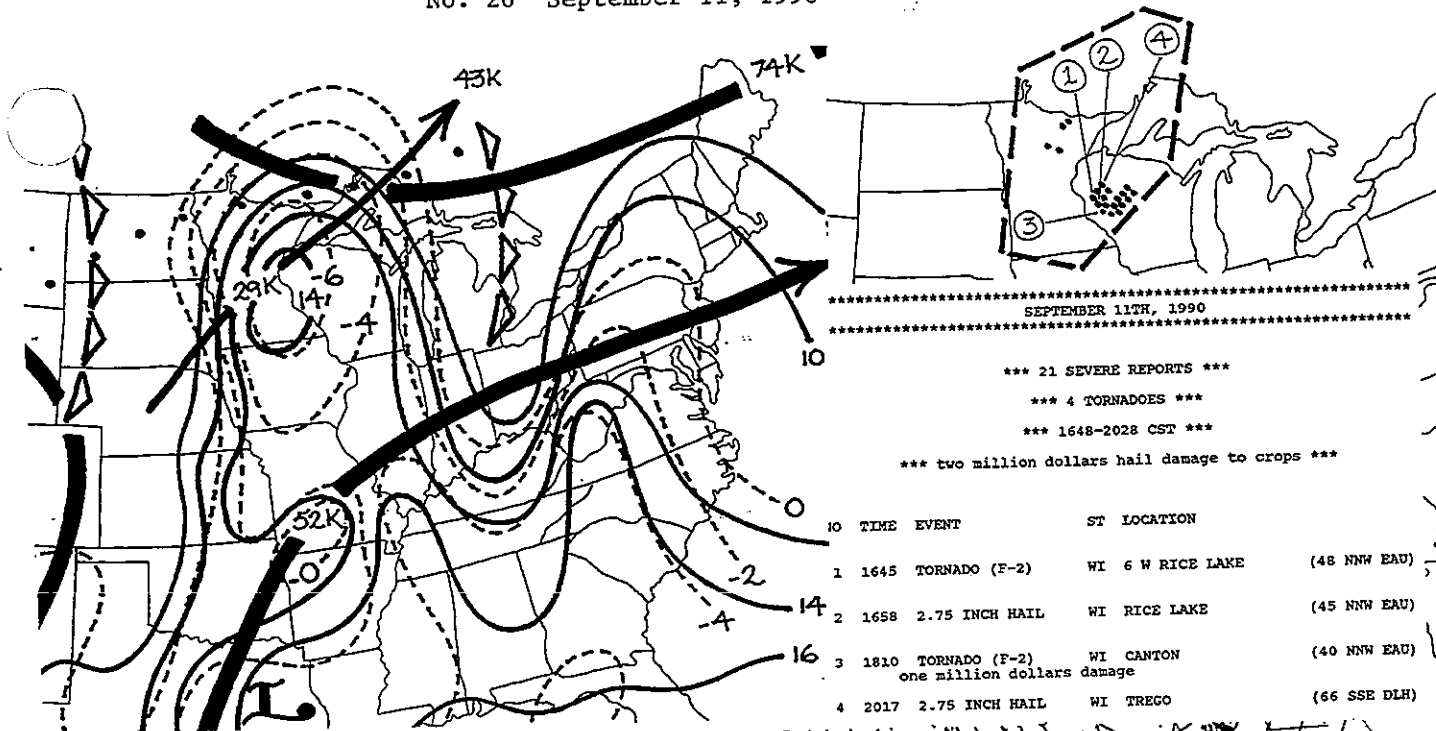
Surface 6PM CST September 10, 1990



500MB 6PM CST September 10, 1990



GOES 2PM CST September 10, 1990

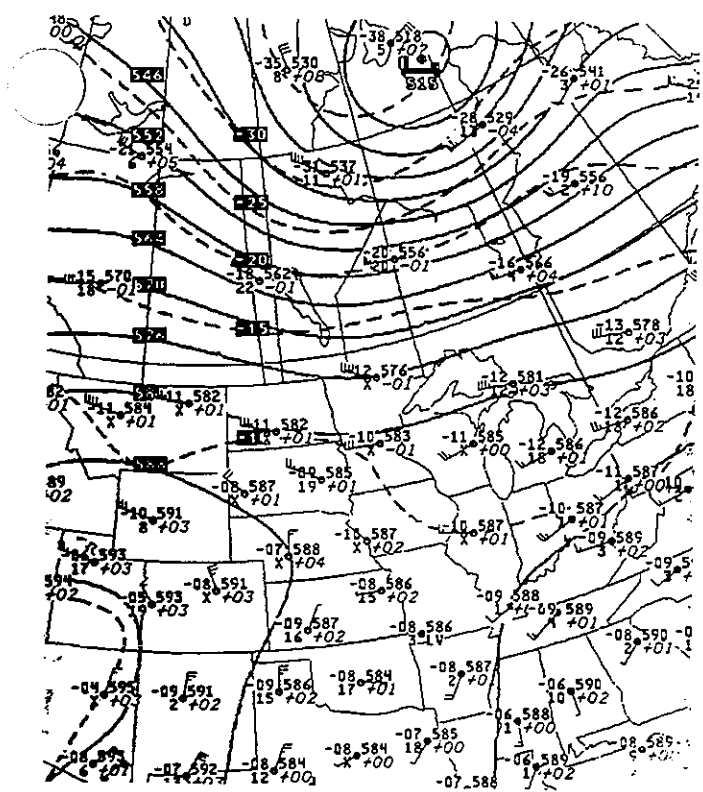


Composite 6PM CST September 11, 1990

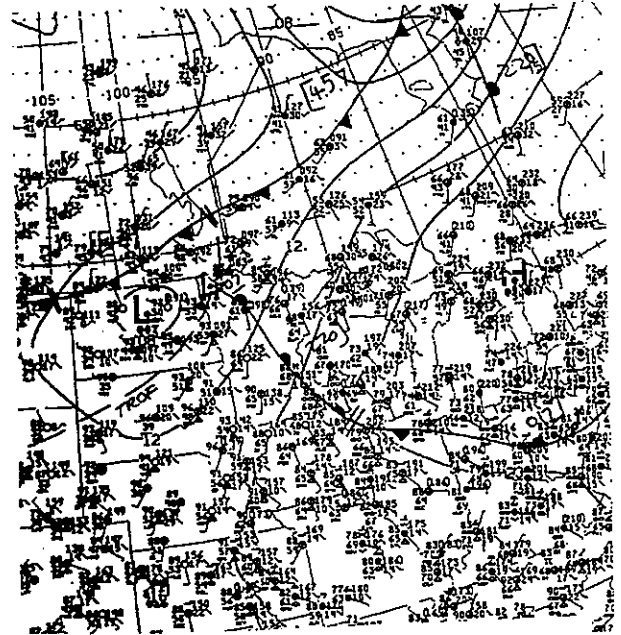
\*\*\*\*\*  
 SEPTEMBER 11TH, 1990  
 \*\*\*\*\*

\*\*\* 21 SEVERE REPORTS \*\*\*  
 \*\*\* 4 TORNADOES \*\*\*  
 \*\*\* 1648-2028 CST \*\*\*  
 \*\*\* two million dollars hail damage to crops \*\*\*

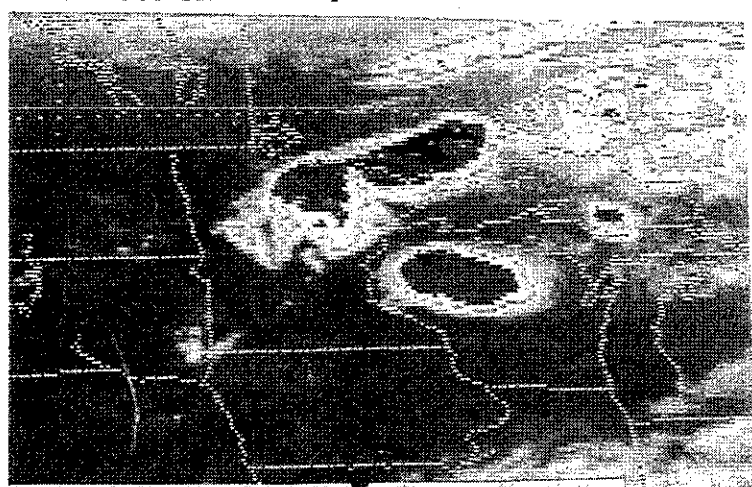
IO	TIME	EVENT	ST	LOCATION	
1	1645	TORNADO (F-2)	WI	6 W RICE LAKE	(48 NNW EAU)
2	1658	2.75 INCH HAIL	WI	RICE LAKE	(45 NNW EAU)
3	1810	TORNADO (F-2) one million dollars damage	WI	CANTON	(40 NNW EAU)
4	2017	2.75 INCH HAIL	WI	TREGO	(66 SSE DLH)



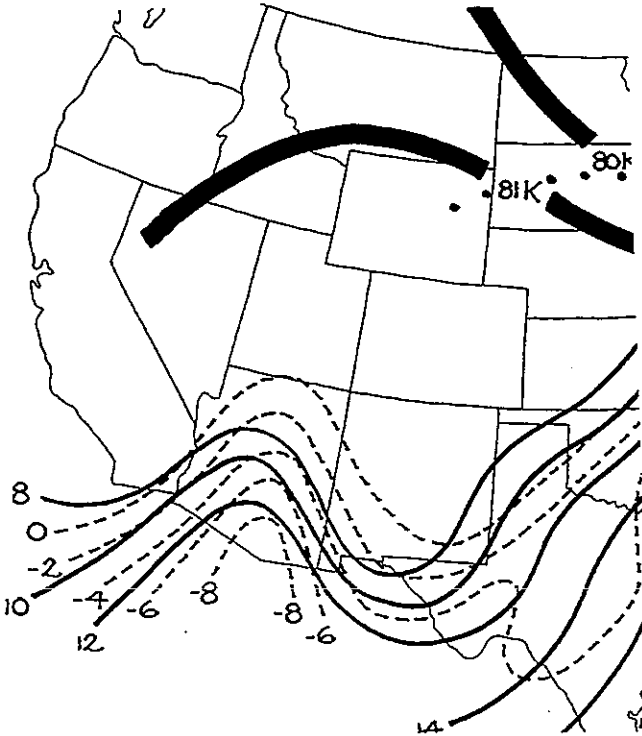
500MB 6PM CST September 11, 1990



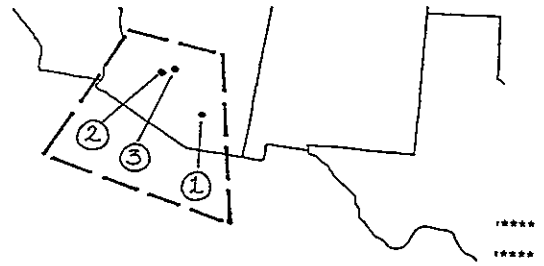
Surface 3PM CST September 11, 1990



GOES 6:30 PM CST September 11, 1990

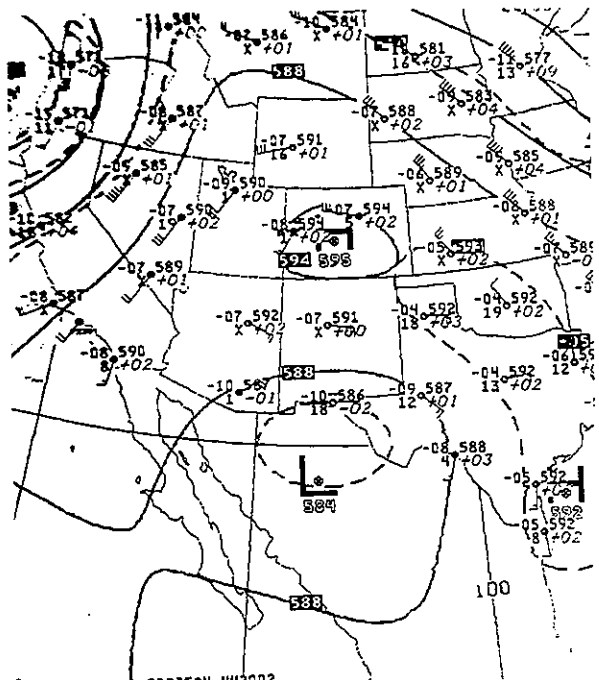


Composite 6PM CST September 14, 1990

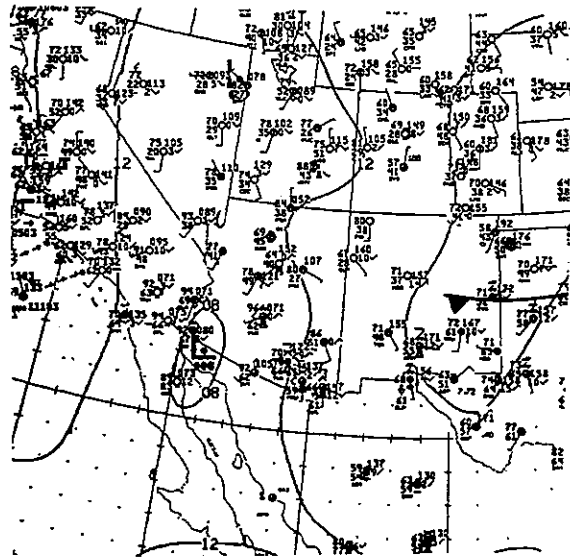


\*\*\* 5 SEVERE REPORTS \*\*\*  
 \*\*\* 1235-2250 CST \*\*\*

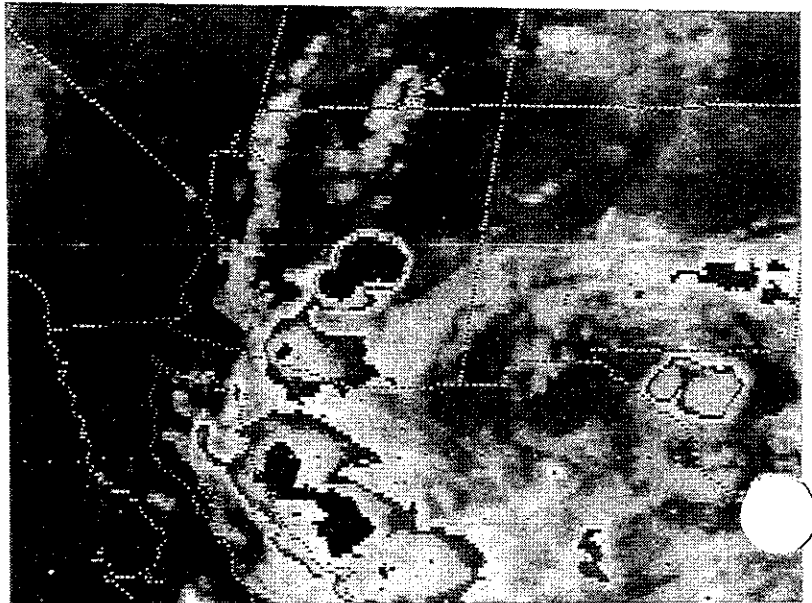
NO	TIME	EVENT	ST	LOCATION	
1	1235	1.75 INCH HAIL	AZ	TUCSON	( TUS)
2	2230	55 MPH WIND GUST more than half a million dollars damage	AZ	GILBERT	(14 ESE PHX)
3	2250	1.75 INCH HAIL	AZ	APACHE JUNCTION	(26 E PHX)



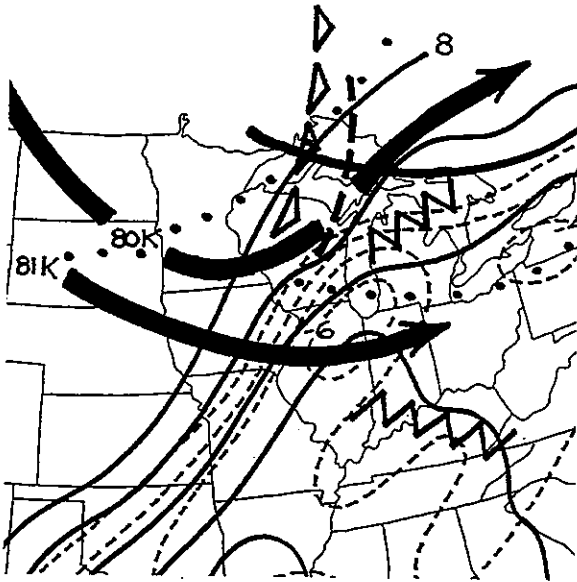
500MB 6PM CST September 14, 1990



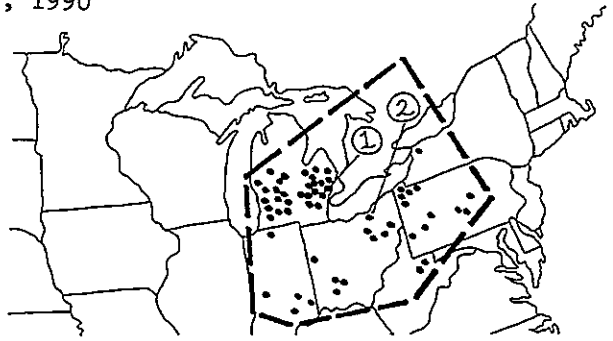
Surface 9PM CST September 14, 1990



38 GOES 10:30 PM CST September 14, 1990



Composite 6AM CST September 14, 1990



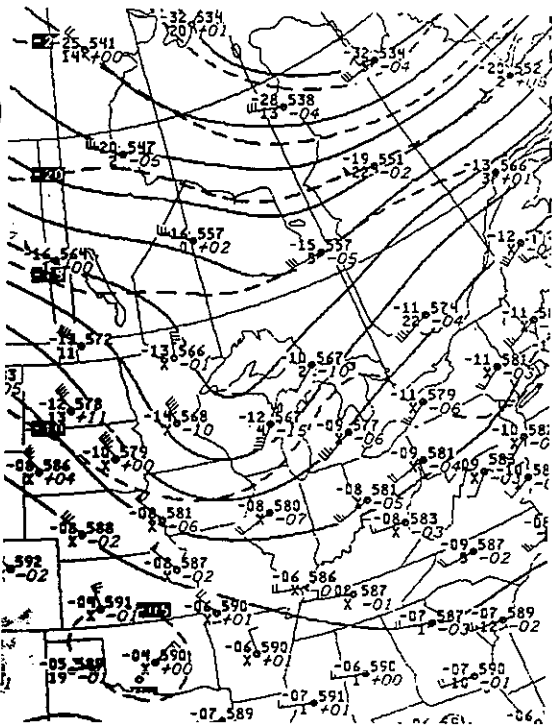
\*\*\*\*\*  
 SEPTEMBER 14TH, 1990  
 \*\*\*\*\*

\*\*\* 57 SEVERE REPORTS \*\*\*

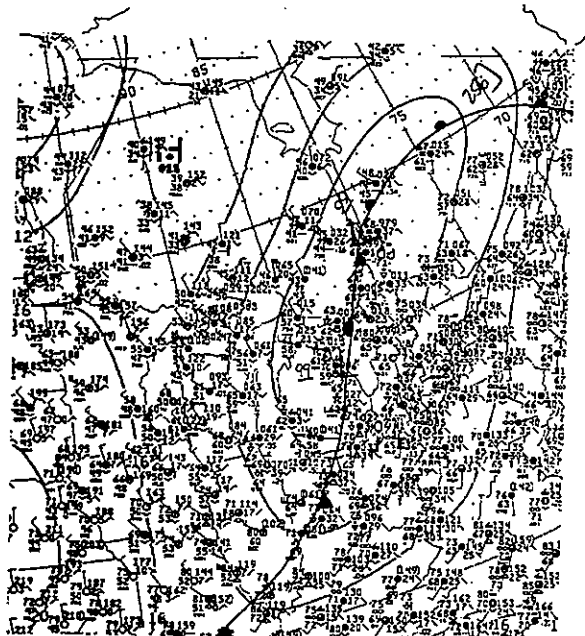
\*\*\* 11 TORNADOES \*\*\*

\*\*\* 0630-2128 CST \*\*\*

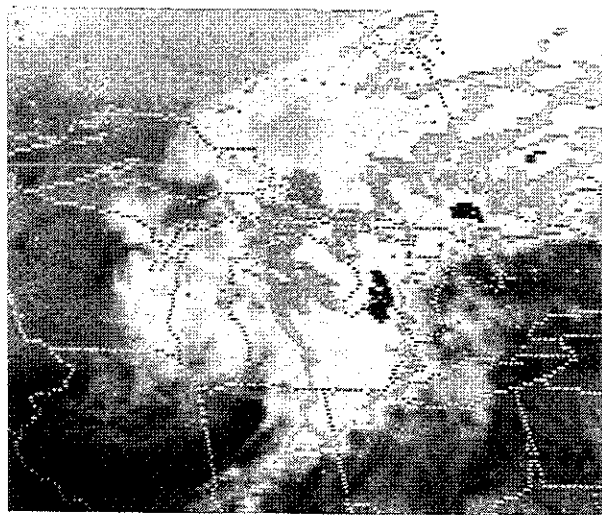
NO	TIME	EVENT	ST	LOCATION	
1	1210	TORNADO (F-3)	MI	NOVI	(18 NNW DTW)
		two million dollars damage			
2	1515	82 MPH WIND GUST	OH	CLEVELAND LIGHTHOUSE	(CLE)



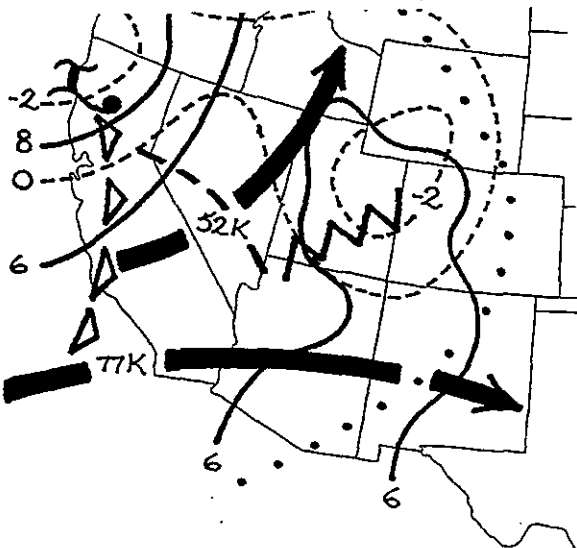
500MB 6AM CST September 14, 1990



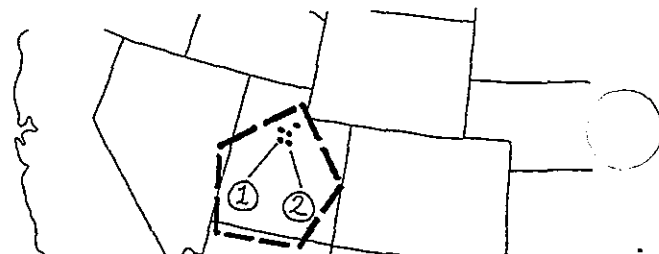
Surface 12 Noon CST September 14, 1990



GOES 12 Noon CST September 14, 1990



Composite 6PM CST September 25, 1990

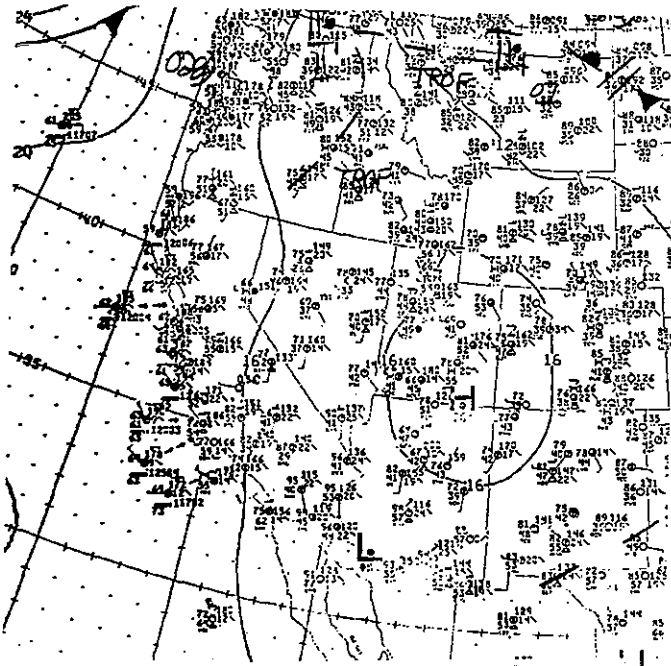


\*\*\*\*\*  
 SEPTEMBER 25TH, 1990  
 \*\*\*\*\*

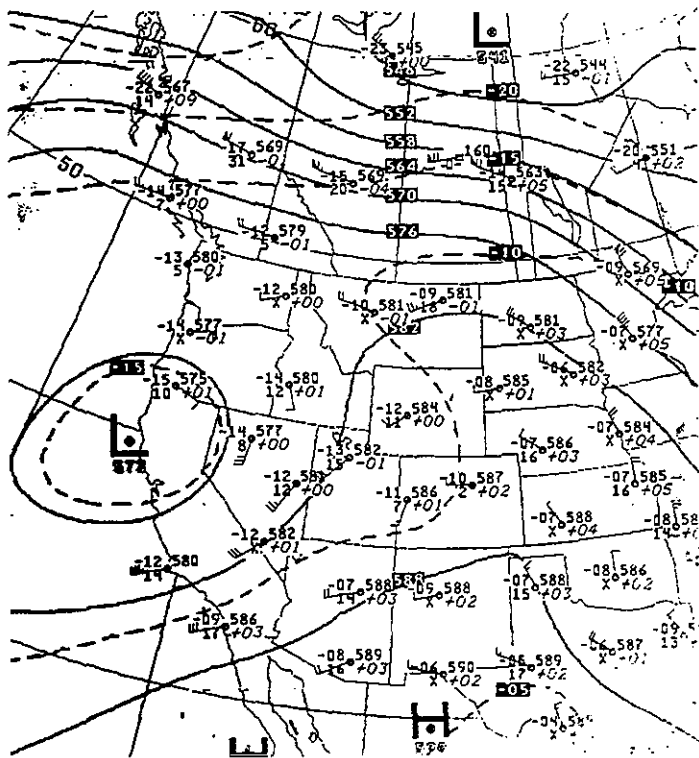
\*\*\* 5 SEVERE REPORTS \*\*\*

\*\*\* 1405-2220 CST \*\*\*

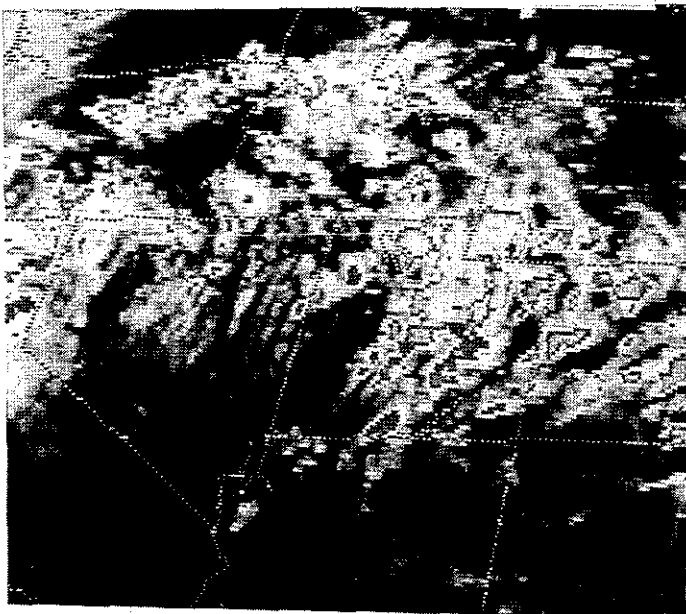
NO	TIME	EVENT	ST	LOCATION	
1	1554	1.50 INCH HAIL	UT	KEARNS	(6 SW SLC)
2	1615	1.50 INCH HAIL	UT	PARK CITY	(26 ESE SLC)



Surface 3PM CST September 25, 1990

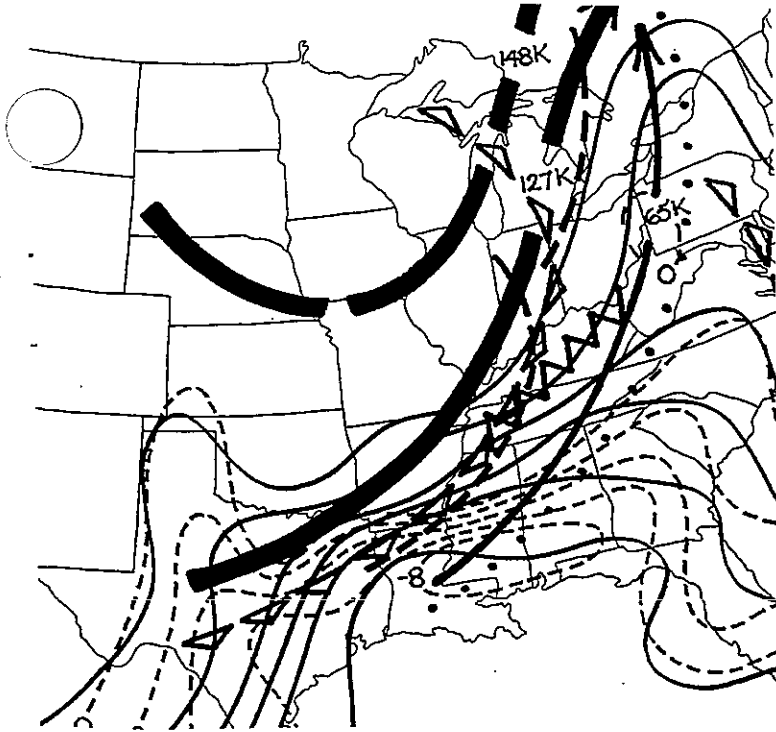


500MB 6PM CST September 25, 1990



GOES 3PM CST September 25, 1990



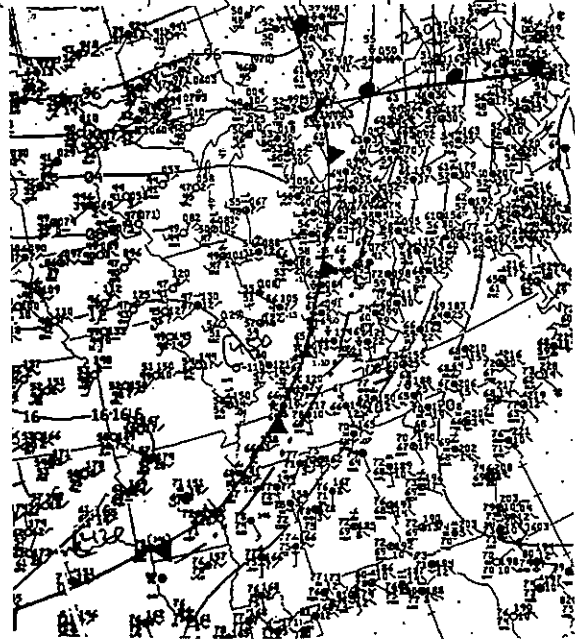
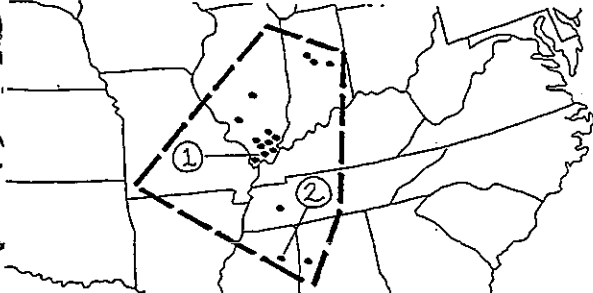


Composite 6AM CST October 4, 1990

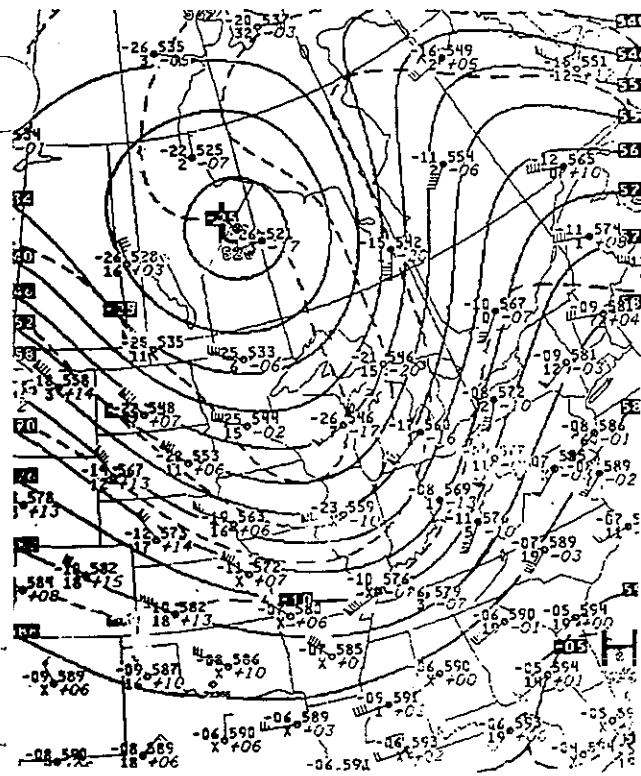
\*\*\*\*\*  
 OCTOBER 3RD-4TH, 1990  
 \*\*\*\*\*

\*\*\* 16 SEVERE REPORTS \*\*\*  
 \*\*\* 8 TORNADOES \*\*\*  
 \*\*\* 1651-0720 CST \*\*\*

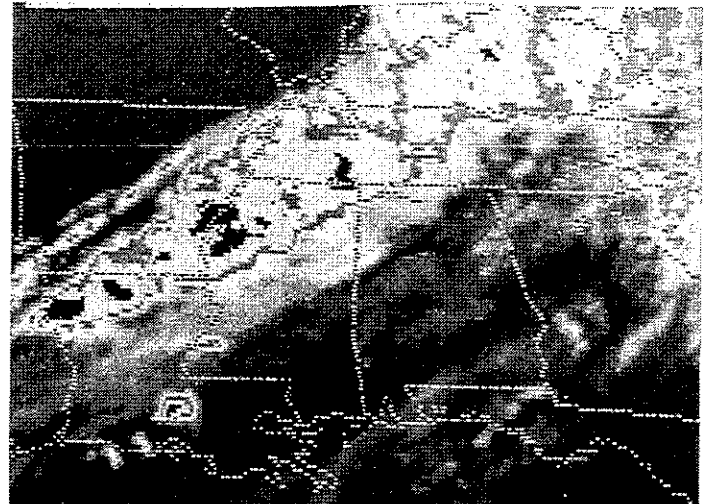
NO	TIME	EVENT	ST	LOCATION	
1	2120	TORNADO (F-2)	IL	HEROD	(40 NNE PAH)
2	0415	TORNADO (F-1) two injuries	MS	VERONA	(5 SE TUP)



Surface 3AM CST October 4, 1990



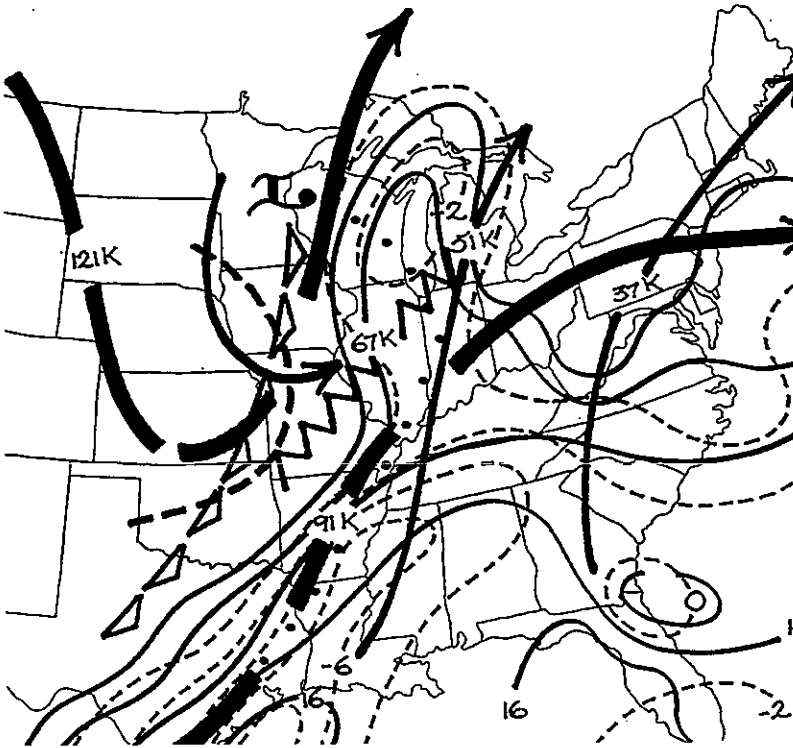
500MB 6AM CST October 4, 1990



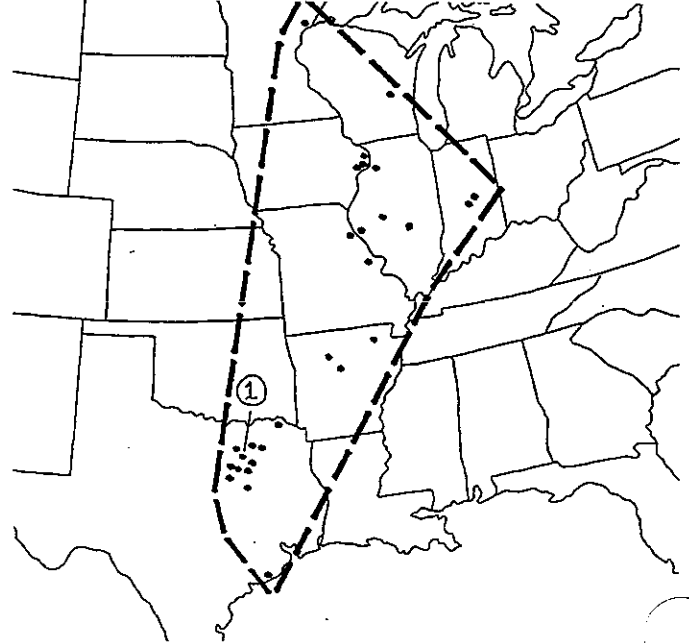
GOES 4AM CST October 4, 1990

\*\*\*\*\*  
OCTOBER 17TH, 1990  
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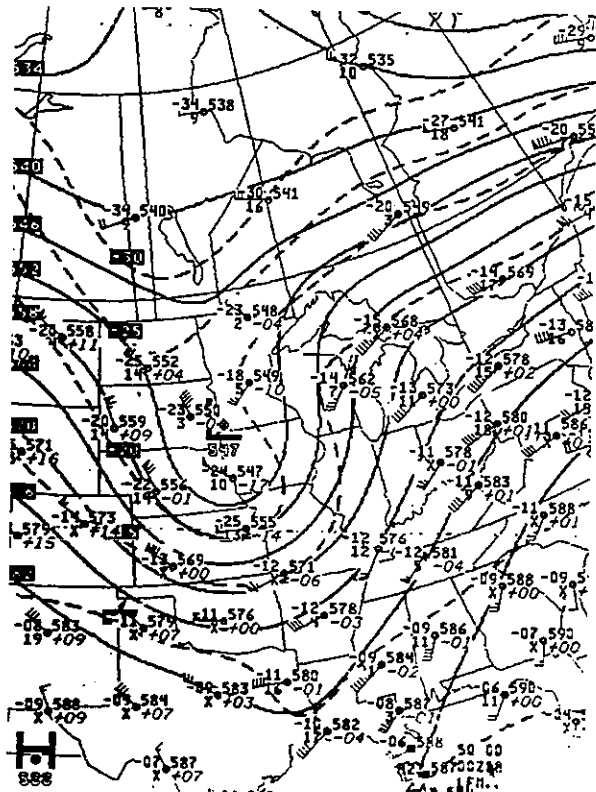
\*\*\* 26 SEVERE REPORTS \*\*\*  
\*\*\* 1515-2225 CST \*\*\*



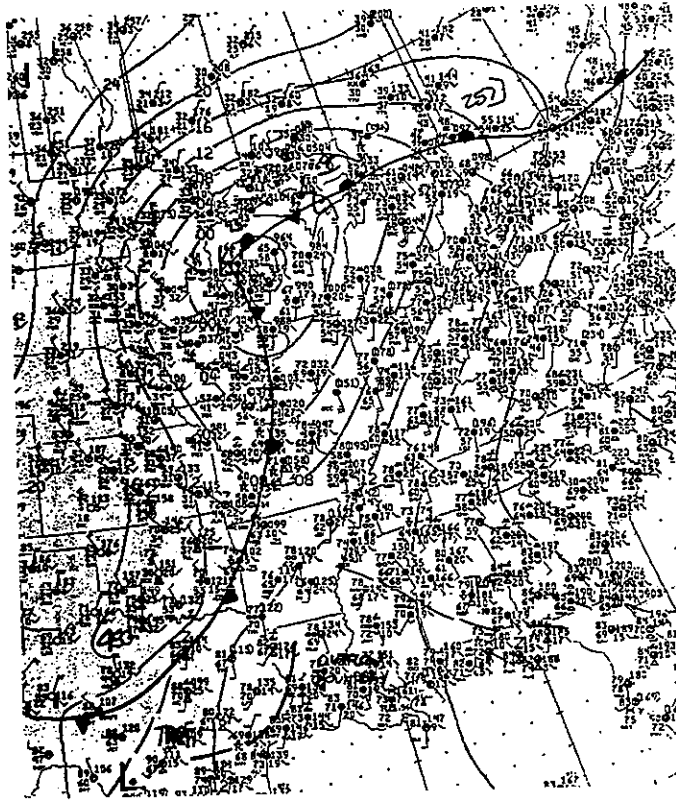
NO	TIME	EVENT	ST	LOCATION
1	1725	65 MPH WIND GUST	TX	ELMONT (42 NE DFW)



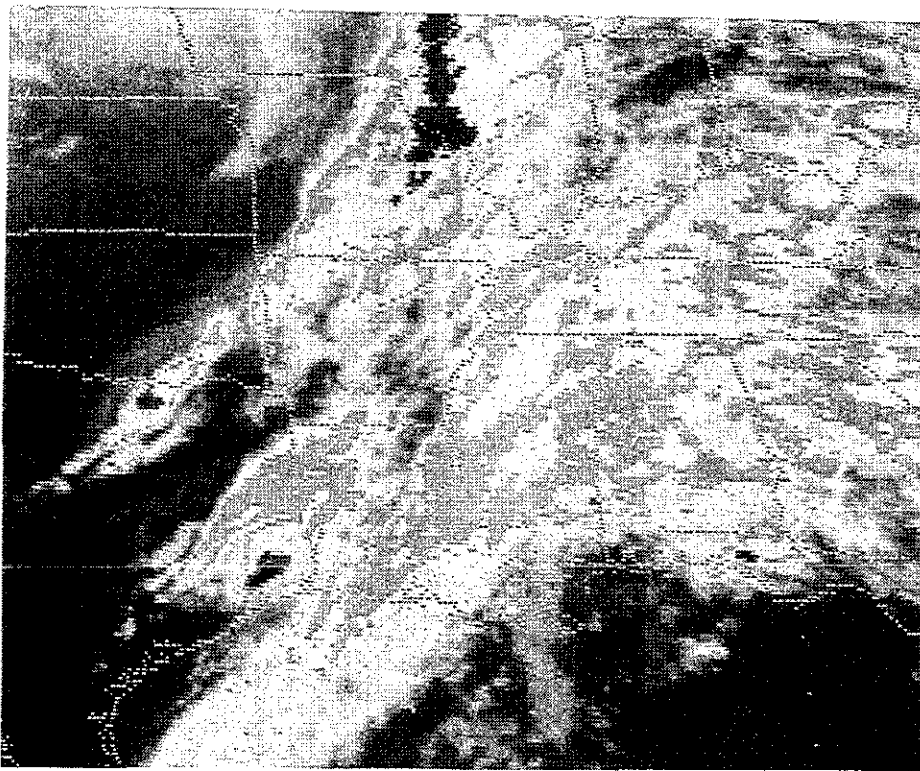
Composite 6PM CST October 17, 1990



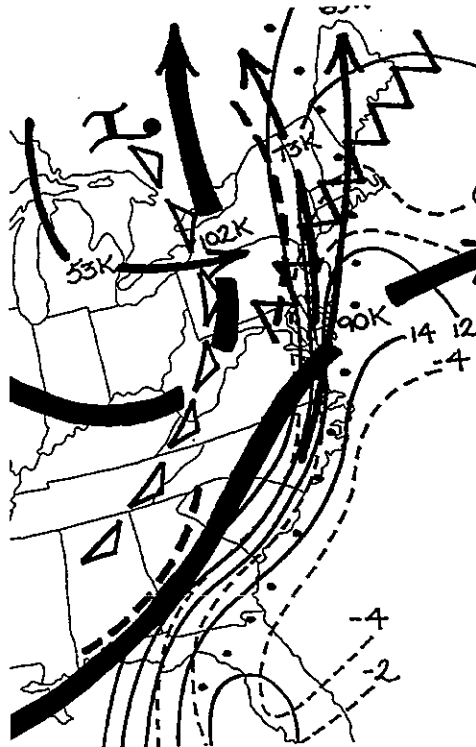
500MB 6PM CST October 17, 1990



Surface 3PM CST October 17, 1990



GOES 4PM CST October 17, 1990

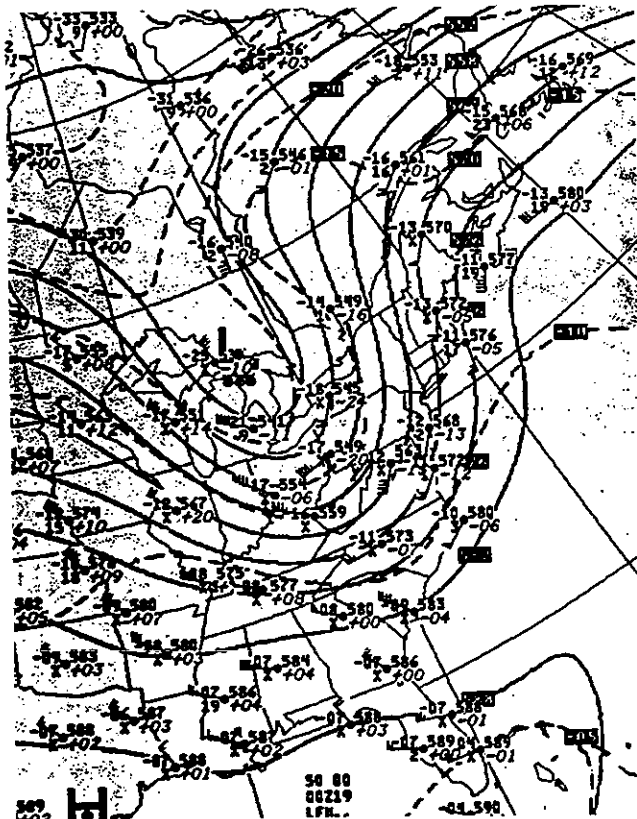
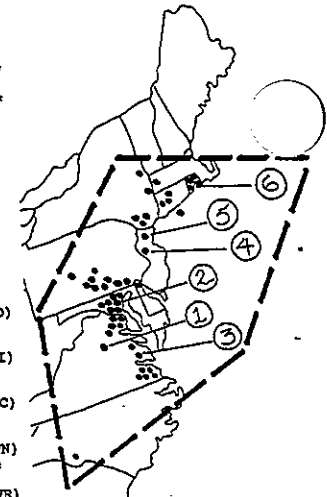


Composite 6PM CST October 18, 1990

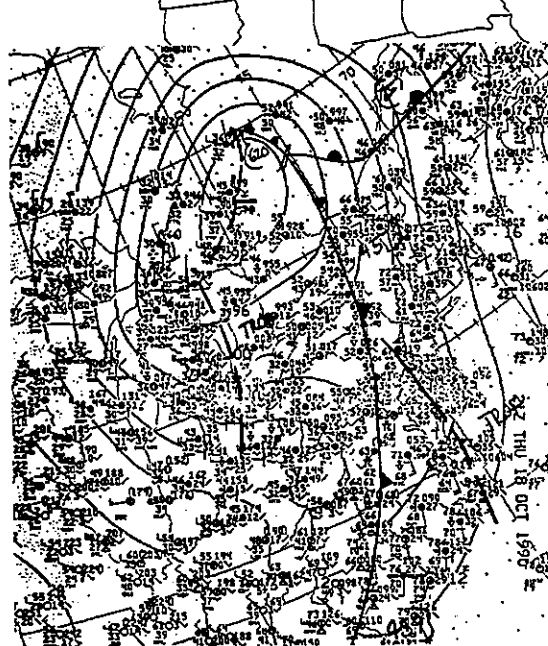
\*\*\*\*\*  
 OCTOBER 18TH, 1990  
 \*\*\*\*\*

\*\*\* 58 SEVERE REPORTS \*\*\*  
 \*\*\* 14 TORNADES \*\*\*  
 \*\*\* 1130-2145 CST \*\*\*

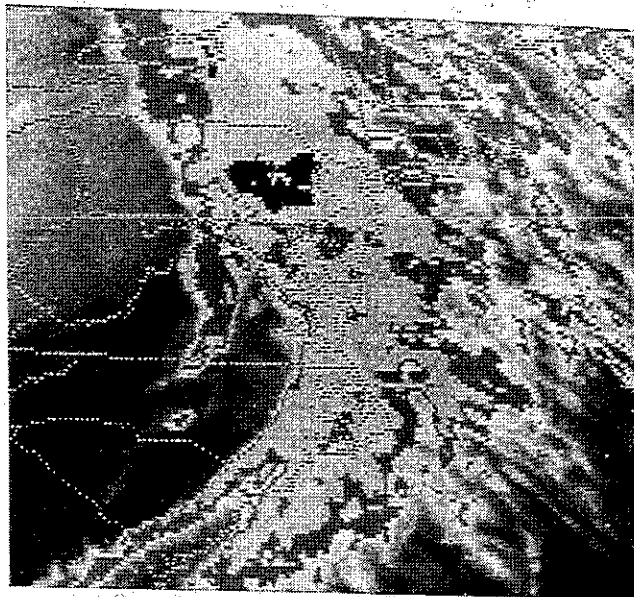
NO	TIME	EVENT	ST	LOCATION	
1	1115	TORNADO (F-3)	VA	EVERONA	(28 ENE CHO) one injury, more than half a million dollars damage
2	1430	TORNADO (F-2)	MD	BALTIMORE	(21 NNW EWI) 59 injuries, 9.5 million dollars damage
3	1500	TORNADO (F-3)	VA	KING WILLIAM	(21 ENE RIC) one death
4	1707	TORNADO (F-3)	NJ	MONTGOMERY	(17 NNE TIN) eight injuries, more than half a million dollars damage
5	1750	WIND DAMAGE	NJ	NEWARK	( EWR) twenty injuries
6	2148	115 MPH WIND GUST	RI	WESTERLY	(11 E GON)



500MB 6PM CST October 18, 1990



Surface 3PM CST October 18, 1990

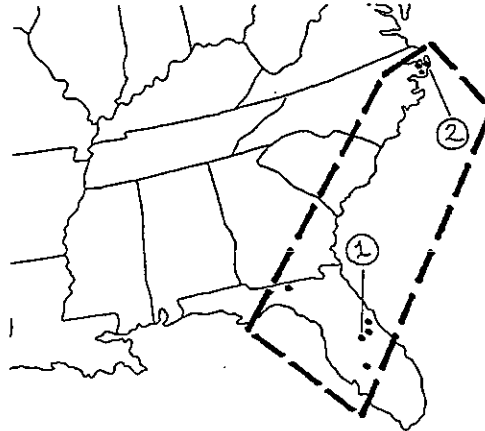
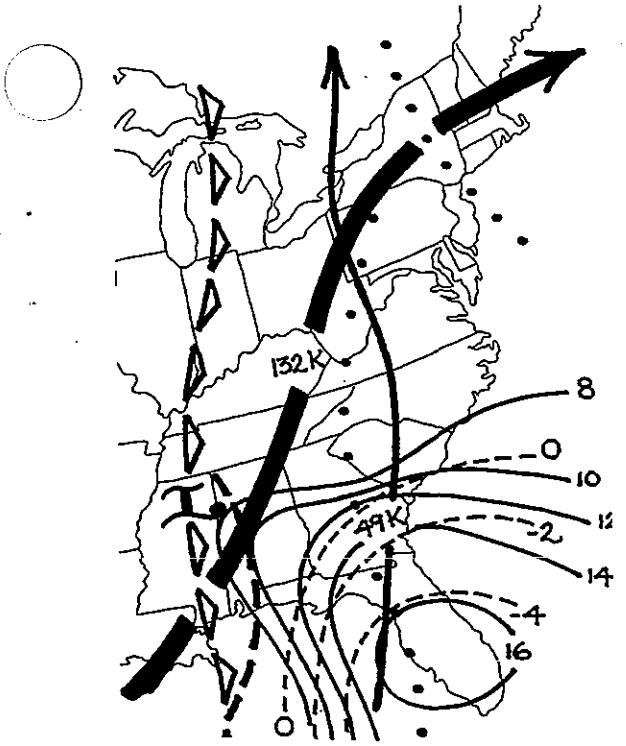


GOES 3PM CST October 18, 1990

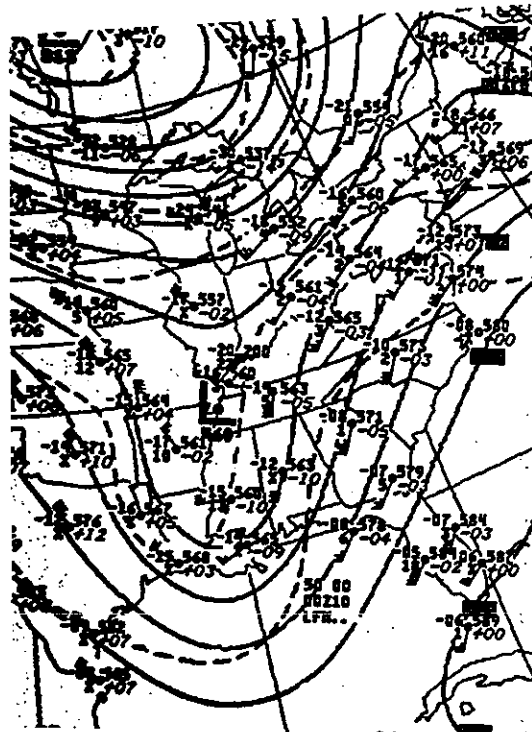
\*\*\*\*\*  
 NOVEMBER 9TH-10TH, 1990  
 \*\*\*\*\*

\*\*\* 8 SEVERE REPORTS \*\*\*  
 \*\*\* 4 TORNADOES \*\*\*  
 \*\*\* 1415-0510 CST \*\*\*

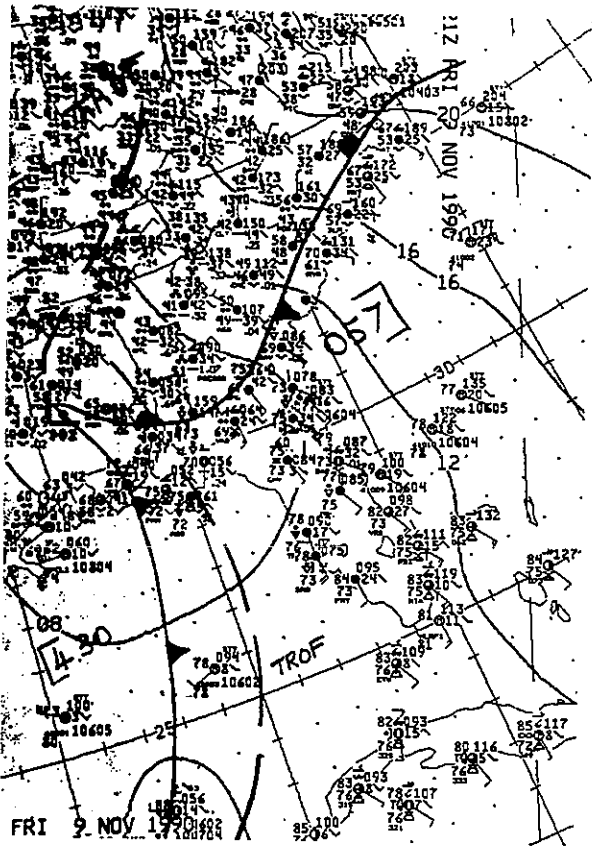
NO	TIME	EVENT	ST	LOCATION	
1	1515	TORNADO (F-1) nine injuries, 16 mile path length	FL	EATONVILLE	(5 NNW ORL)
2	0440	TORNADO (F-2) one injury	NC	FRISCO	(5 WSW HAT)



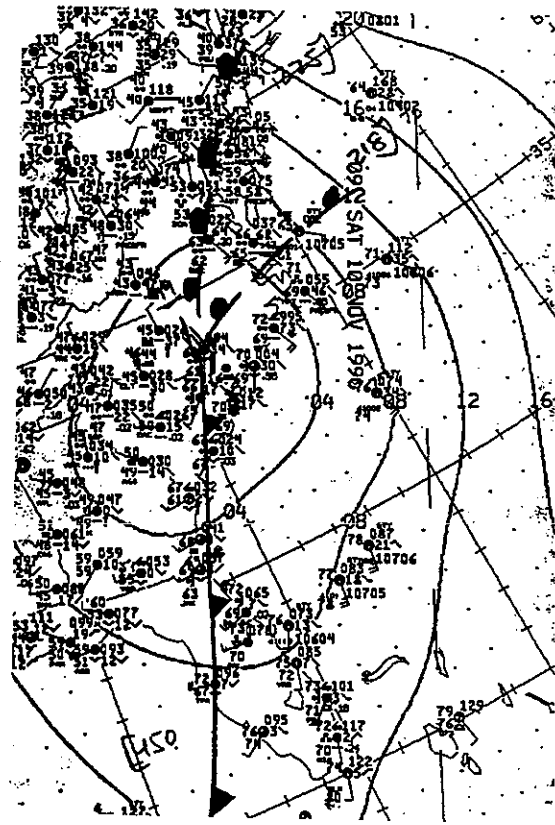
Composite 6PM CST November 9, 1990



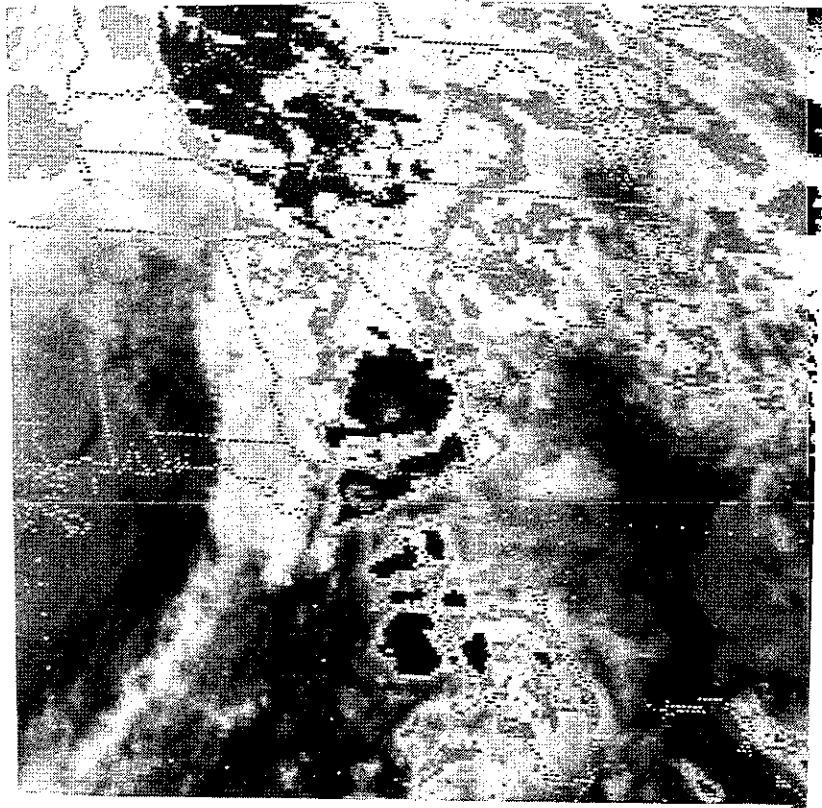
500MB 6PM CST November 9, 1990



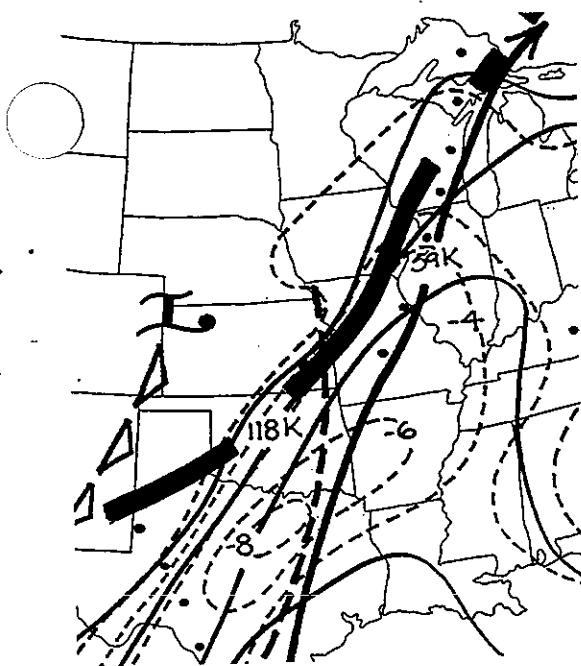
Surface 3PM CST November 9, 1990



Surface 3AM CST November 10, 1990



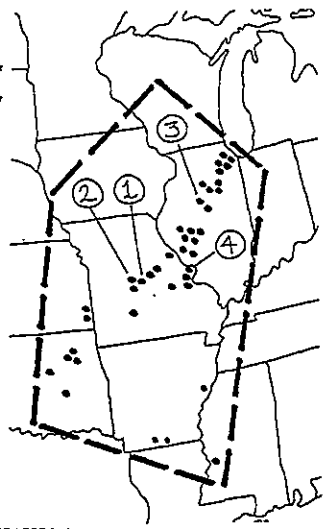
GOES 3PM CST November 9, 1990



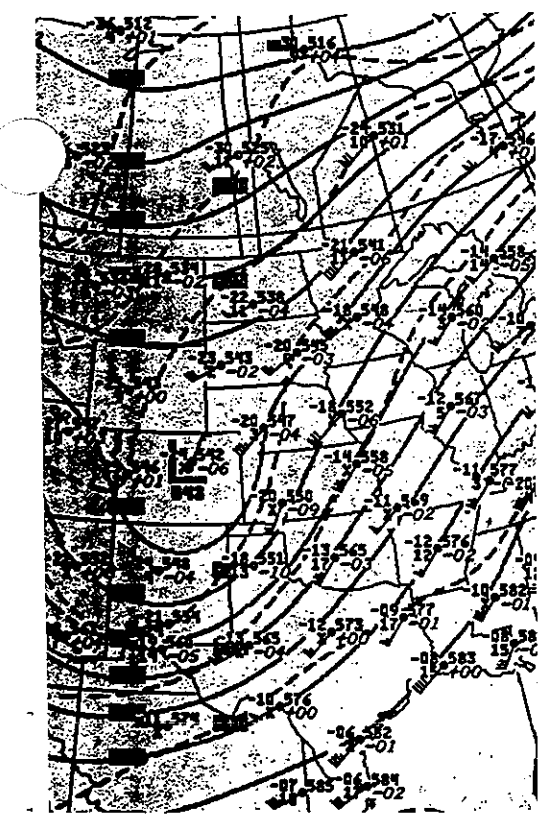
Composite 6AM CST November 27, 1990

\*\*\*\*\*  
 NOVEMBER 27TH-28TH, 1990  
 \*\*\*\*\*

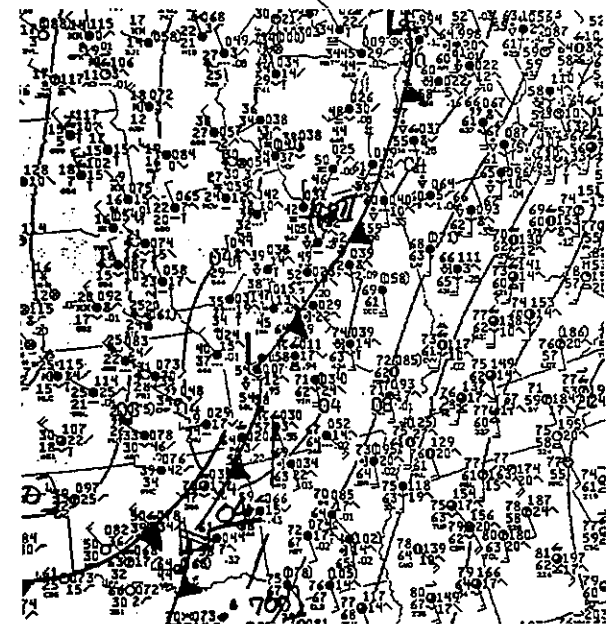
\*\*\* 39 SEVERE REPORTS \*\*\*  
 \*\*\* 10 TORNADOES \*\*\*  
 \*\*\* 0600-0035 CST \*\*\*



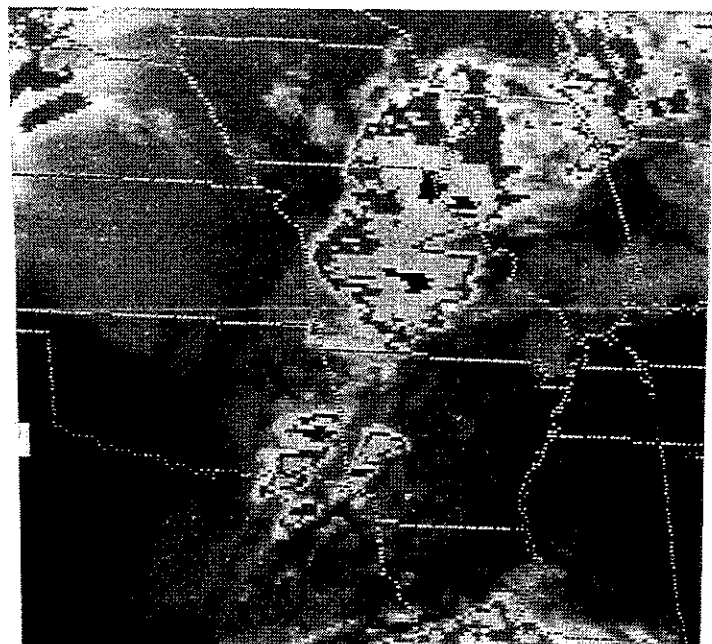
NO	TIME	EVENT	ST	LOCATION	
1	1120	TORNADO (F-3)	MO	COLUMBIA	( COU) three injuries, more than five million dollars damage
2	1112	TORNADO (F-3)	MO	McBAINE	(13 WNW COU)
3	1413	TORNADO (F-2)	IL	15 SSW PEORIA	(15 SSW PIA) two injuries, 1.5 million dollars damage
4	1453	TORNADO (F-2)	MO	O'FALLOON	(30 WNW STL) 30 injuries, more than five million dollars damage



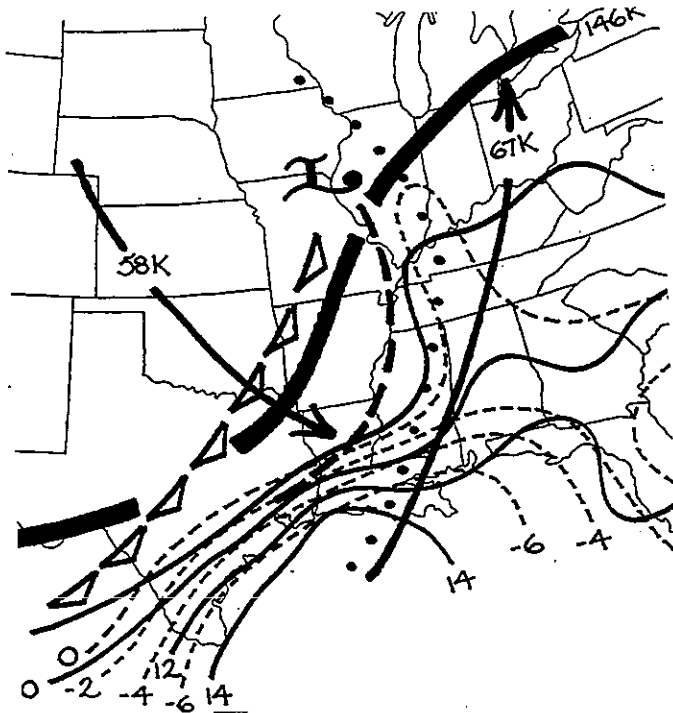
500 MB 6AM CST November 27, 1990



Surface 12 Noon CST November 27, 1990



47 GOES 12 Noon CST November 27, 1990

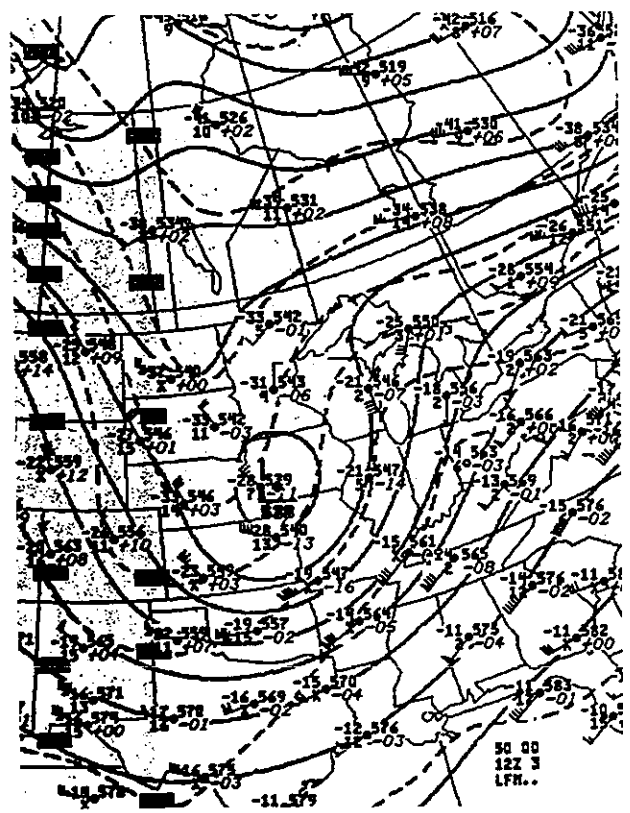


Composite 6AM CST December 3, 1990

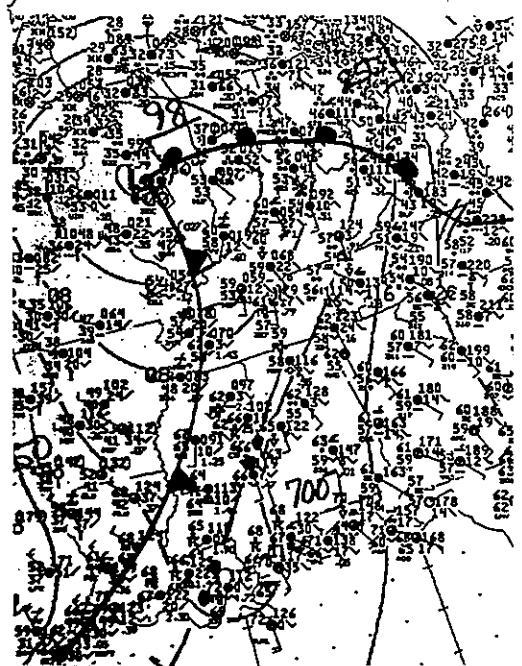
\*\*\*\*\*  
 DECEMBER 3RD, 1990  
 \*\*\*\*\*

\*\*\* 44 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 0615-1300 CST \*\*\*

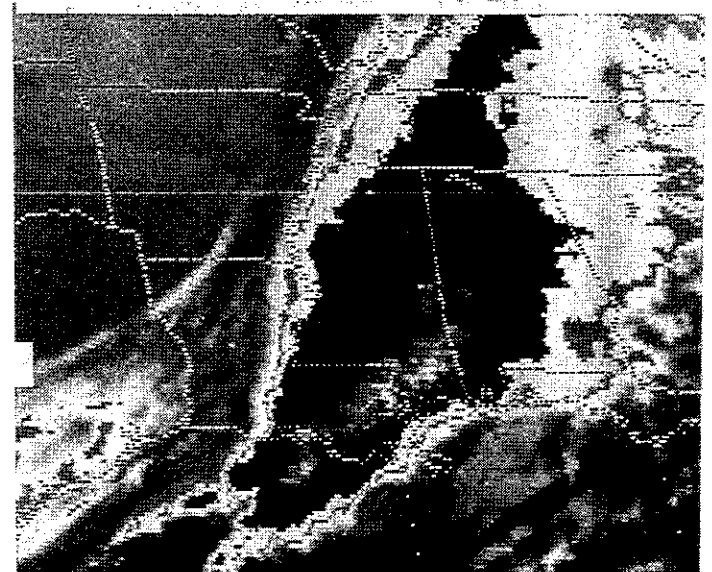
NO	TIME	EVENT	ST	LOCATION	
1	0645	WIND DAMAGE five injuries	MS	11 SW HOWISON	(30 WNW BIX)
2	0745	WIND DAMAGE three injuries	MS	SHIPMAN	(18 NW MOB)



500MB 6AM CST December 3, 1990

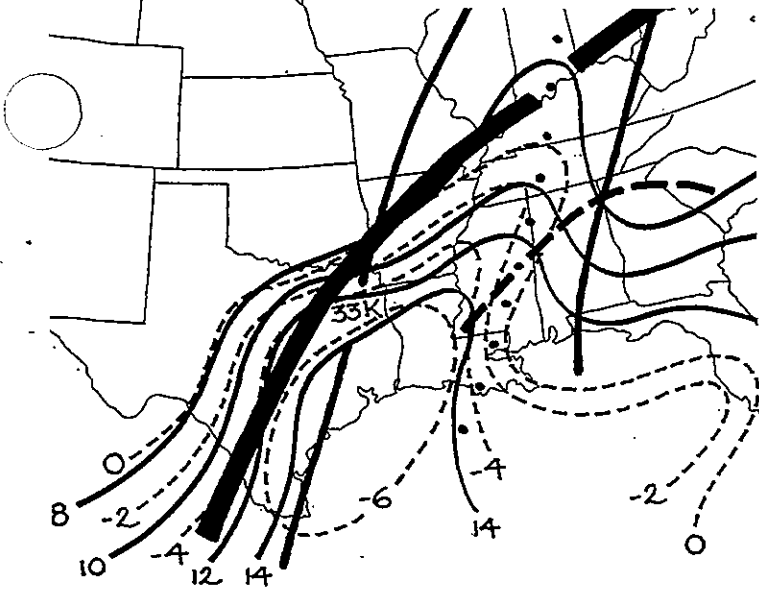


Surface 6AM CST December 3, 1990

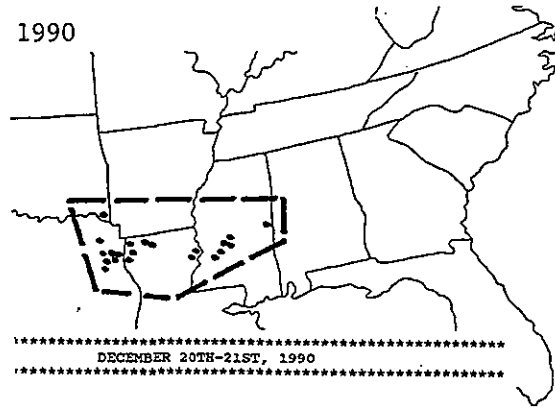


GOES 7AM CST December 3, 1990

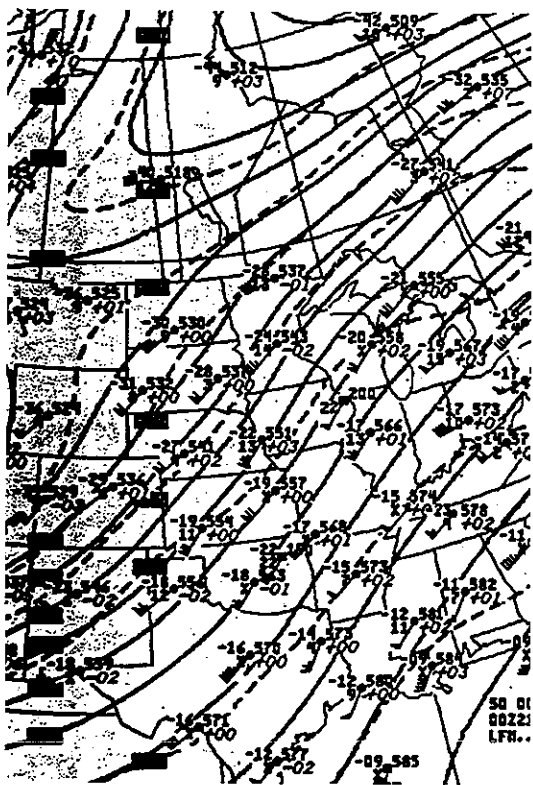




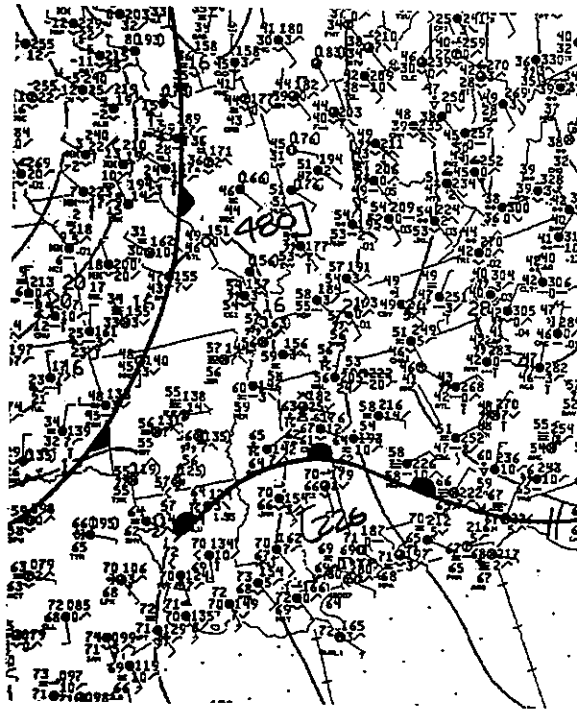
Composite 6PM CST December 20, 1990



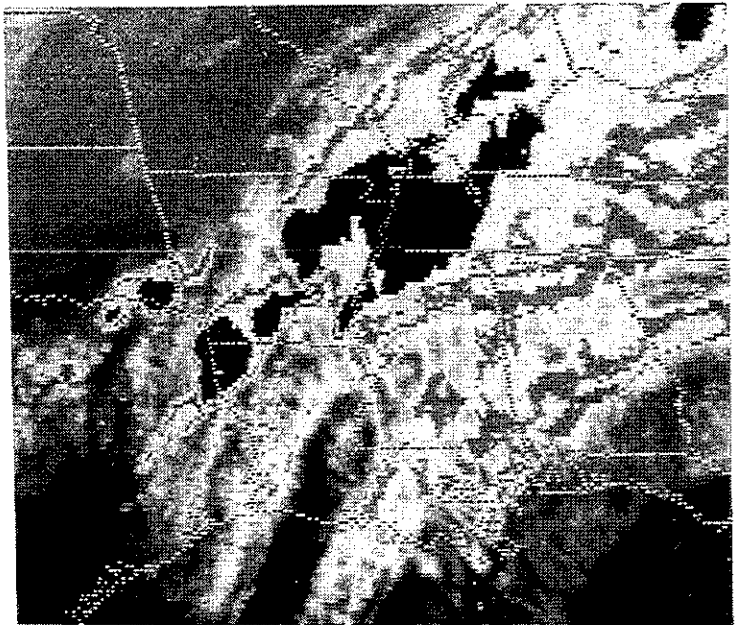
\*\*\*\*\*  
DECEMBER 20TH-21ST, 1990  
\*\*\*\*\*  
\*\*\* 21 SEVERE REPORTS \*\*\*  
\*\*\* 5 TORNADOES \*\*\*  
\*\*\* 1550-0052 CST \*\*\*



500MB 6PM CST December 20, 1990



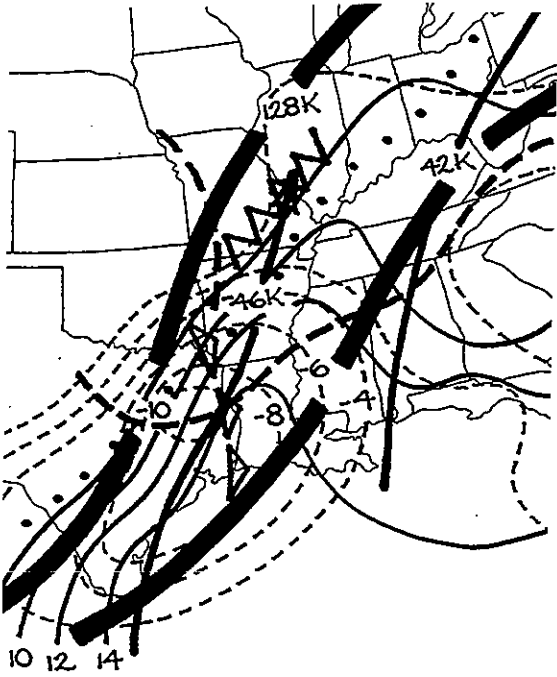
Surface 9PM CST December 20, 1990



GOES 11PM CST December 20, 1990

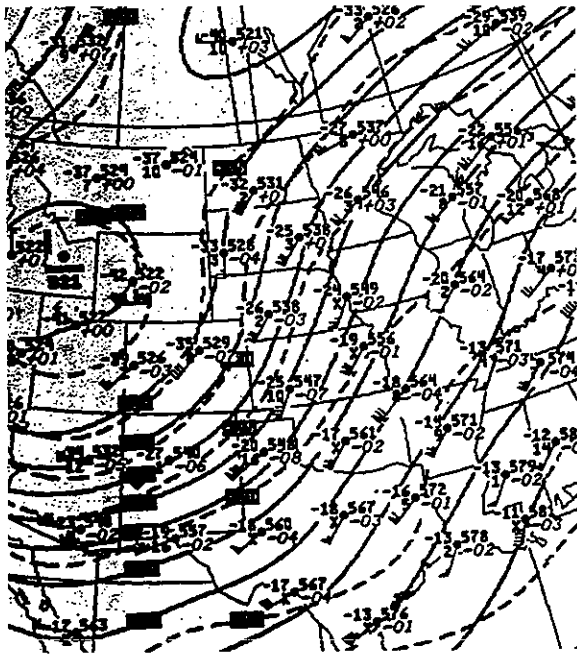
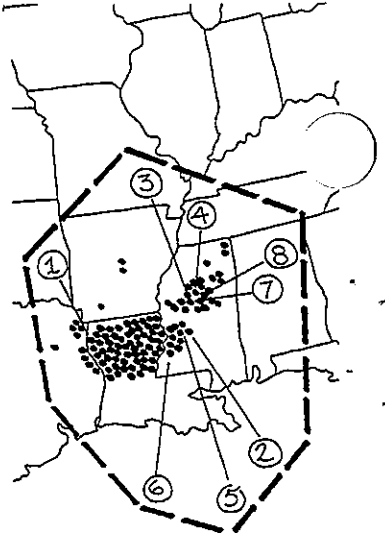
\*\*\*\*\*  
\*\*\*\*\*

\*\*\* 105 SEVERE REPORTS \*\*\*  
\*\*\* 22 TORNADOES \*\*\*  
\*\*\* 0850-0140 CST \*\*\*

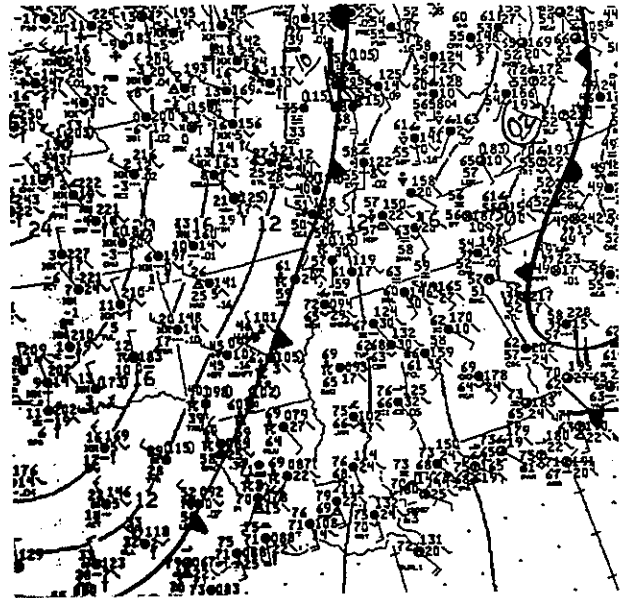


Composite 6AM CST December 21, 1990

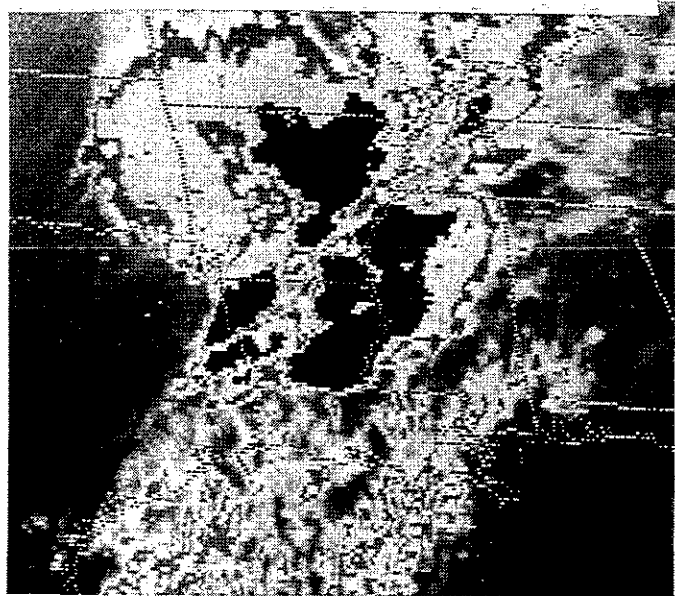
NO	TIME	EVENT	ST	LOCATION	
1	1120	2.75 INCH HAIL	LA	8 N JONESBORO	(42 WSW SRV)
2	1437	TORNADO (F-2) three injuries	LA	THOMASTOWN	(57 W JAN)
3	1510	TORNADO (F-2) more than half a million dollars damage	MS	MORGAN CITY	(18 WSW GWO)
4	1620	TORNADO (F-3)	MS	3 NE HOLCOMB	(19 NNE GWO)
5	1625	TORNADO (F-2) four injuries	LA	THOMASTOWN	(57 W JAN)
6	1625	TORNADO (F-3) 18 mile path length	LA	WATERPROOF	(15 NW HEZ)
7	1650	TORNADO (F-3) one death, 15 injuries, more than half a million dollars damage	MS	VAIDEN	(26 S GWO)
8	1932	TORNADO (F-3) more than a million dollars damage	MS	5 SW LORING	(27 NE JAN)



500MB 6AM CST December 21, 1990



Surface 3PM CST December 21, 1990



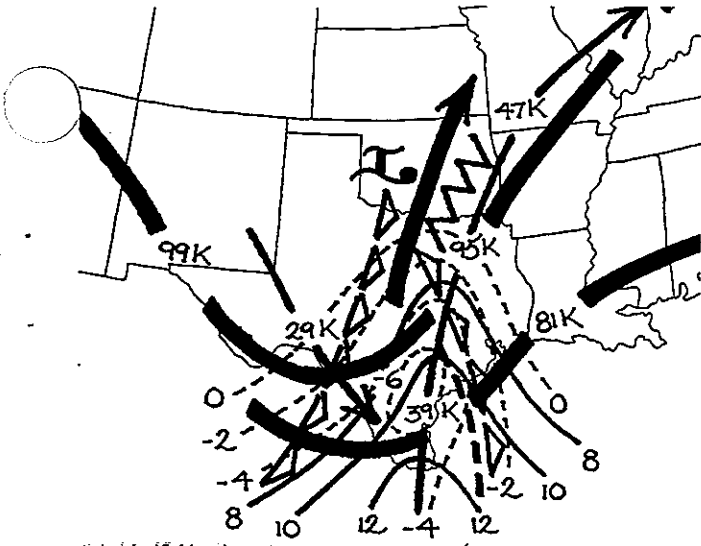
50 GOES 2PM CST December 21, 1990

\*\* 28 SEVERE REPORTS \*\*\*

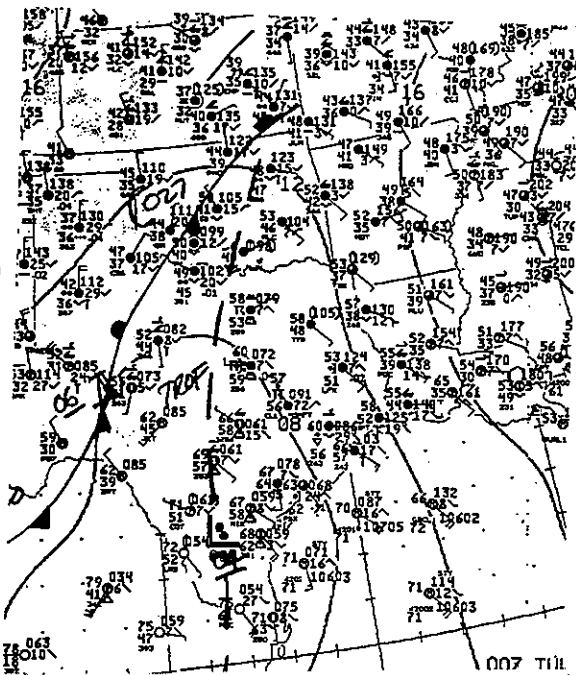
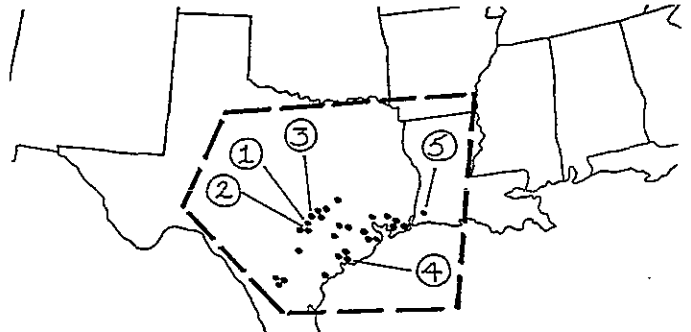
\*\*\* 11 TORNADES \*\*\*

\*\*\* 1740-0115 CST \*\*\*

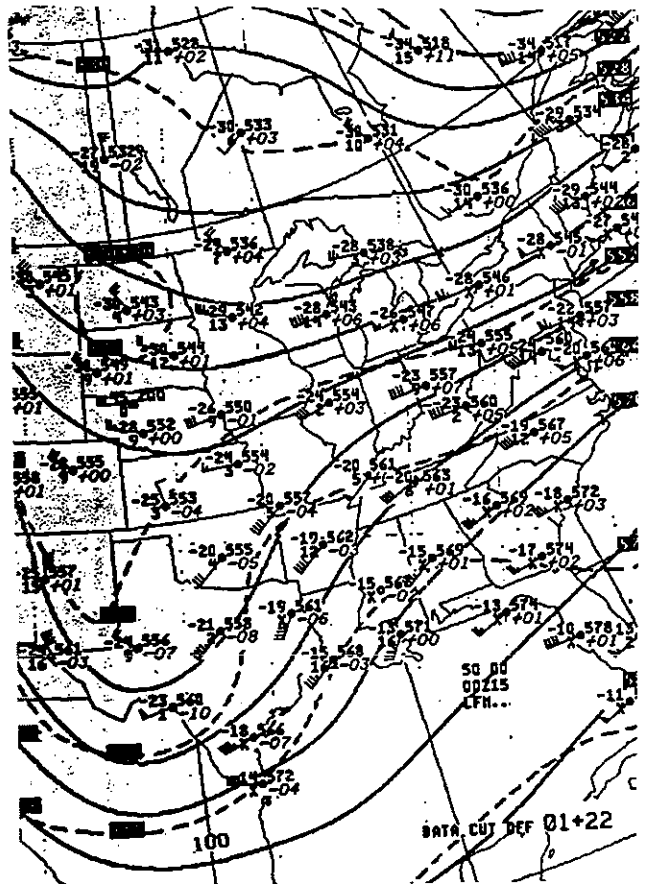
NO	TIME	EVENT	ST	LOCATION	
1	1814	TORNADO (F-2)	TX	SMITHVILLE	(37 ESE AUS)
2	1816	2.00 INCH HAIL	TX	SMITHVILLE	(37 ESE AUS)
3	1818	TORNADO (F-1) one death, eleven injuries, more than five million dollars damage	TX	COLUMBUS	(60 SW CLL)
4	2245	71 MPH WIND GUST	TX	PALACIOS	( PSX)
5	0115	WIND DAMAGE two injuries	LA	HACKBERRY	(12 SW LCH)



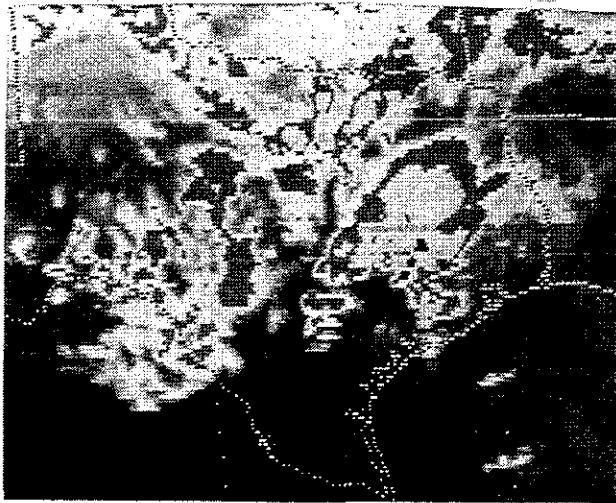
Composite 6PM CST January 14, 1991



Surface 6PM CST January 14, 1991



500MB 6PM CST January 14, 1991

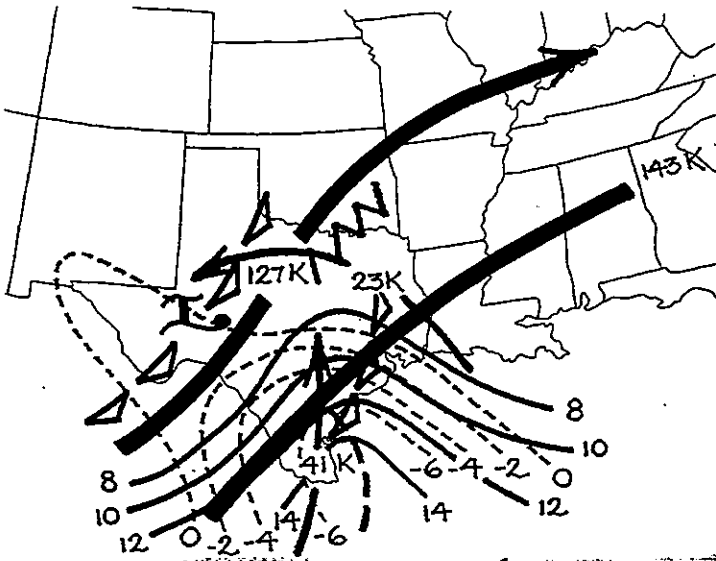


GOES 6PM CST January 14, 1991

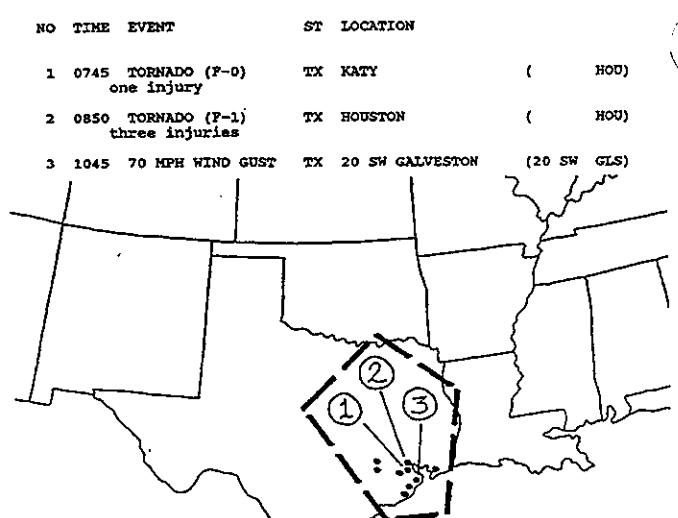
\*\*\* 12 SEVERE REPORTS \*\*\*

\*\*\* 9 TORNADOES \*\*\*

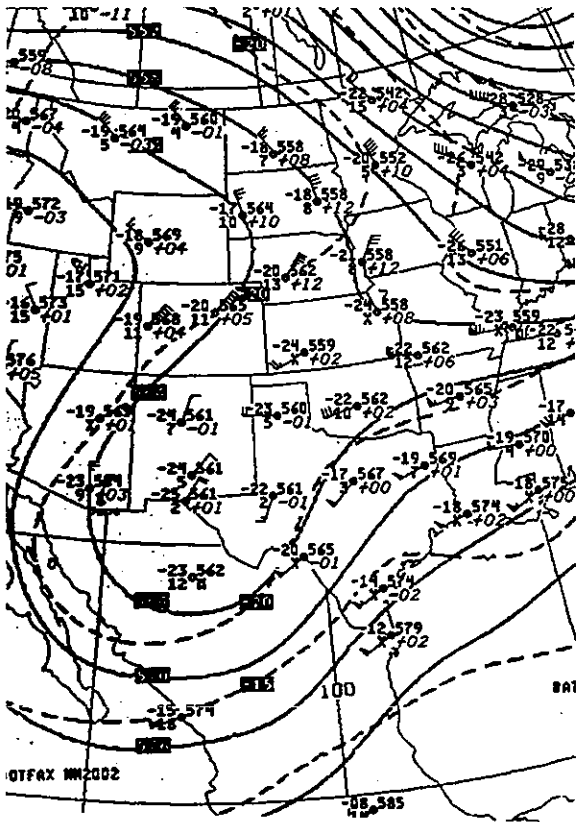
\*\*\* 0705-1059 CST \*\*\*



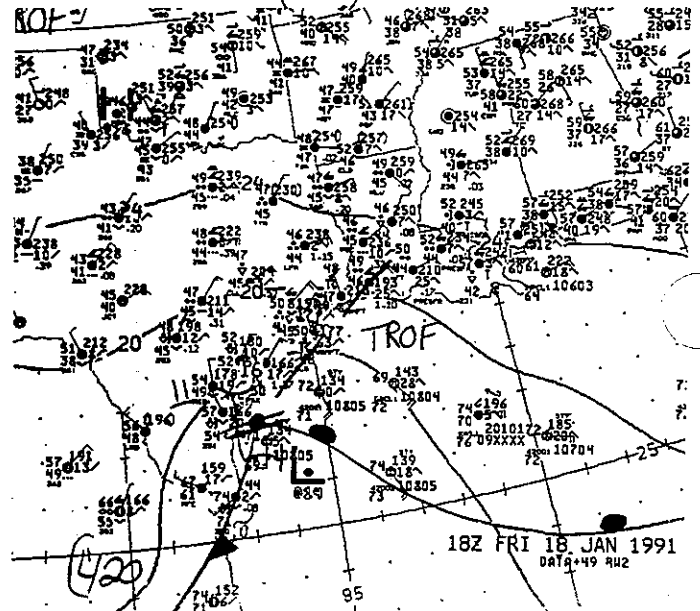
Composite 6AM CST January 18, 1991



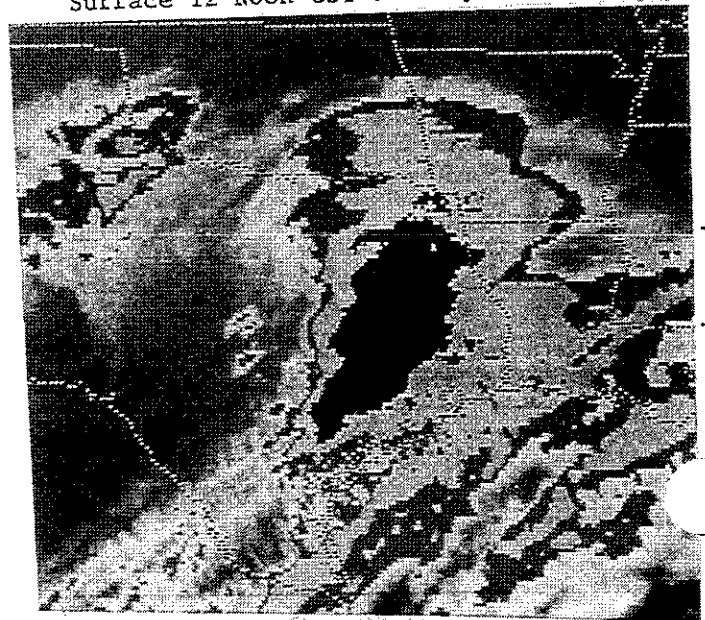
NO	TIME	EVENT	ST	LOCATION	
1	0745	TORNADO (F-0) one injury	TX	KATY	( HOU)
2	0850	TORNADO (F-1) three injuries	TX	HOUSTON	( HOU)
3	1045	70 MPH WIND GUST	TX	20 SW GALVESTON	(20 SW GLS)



500MB 6AM CST January 18, 1991



Surface 12 Noon CST January 18, 1991



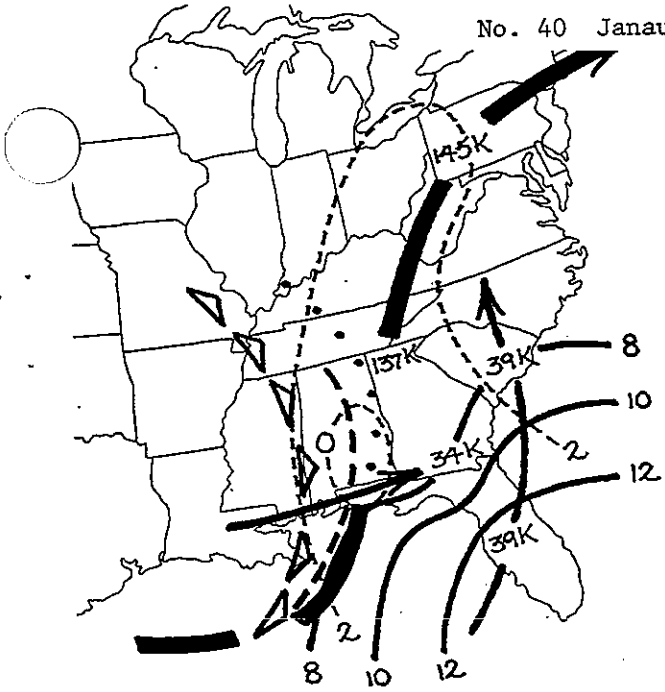
52 GOES 8AM CST January 18, 1991

\*\*\* 24 SEVERE REPORTS \*\*\*

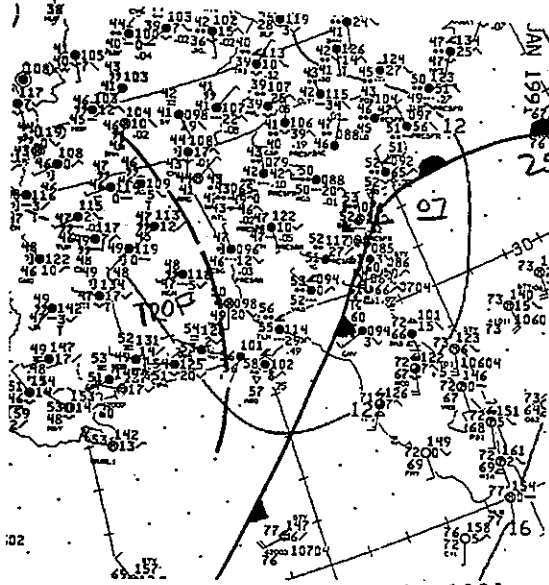
\*\*\* 3 TORNADOES \*\*\*

\*\*\* 1705-0055 CST \*\*\*

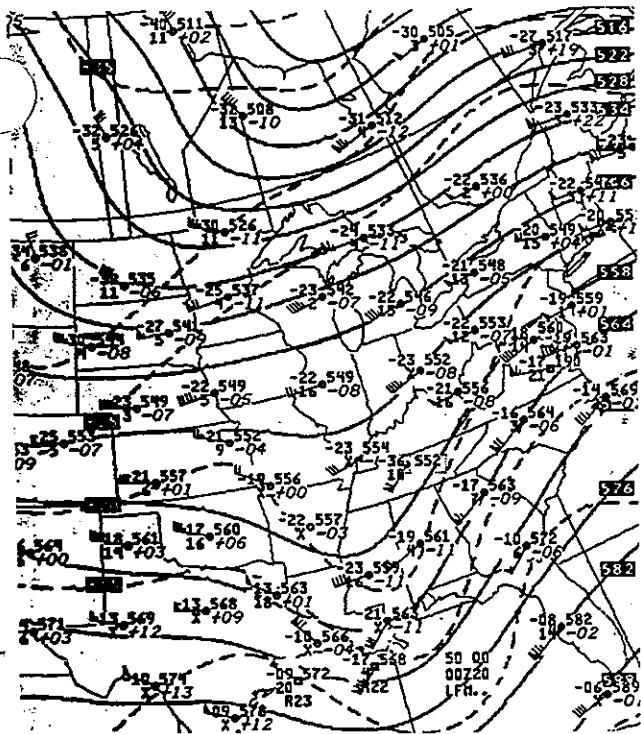
NO	TIME	EVENT	ST	LOCATION
1	2125	WIND DAMAGE four injuries	FL	NEW PORT RICHEY (23 N PIE)
2	2150	WIND DAMAGE one injury	FL	TAMPA BAY DOWNS ( TPA)



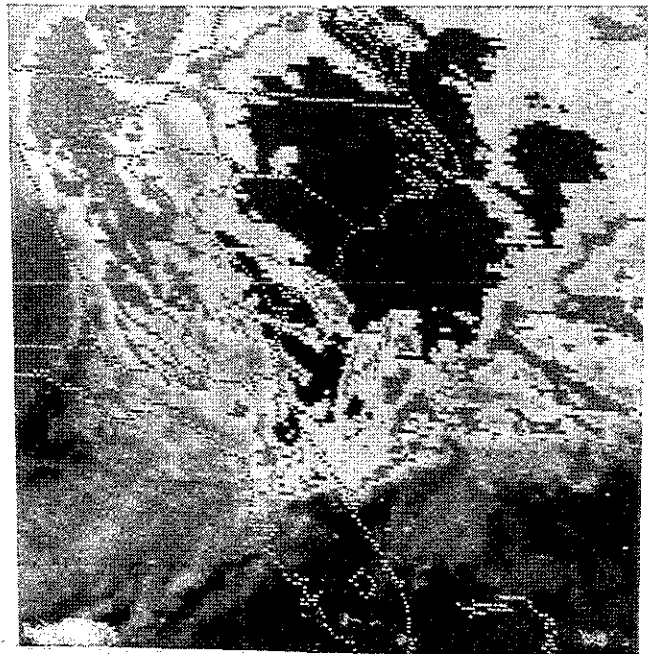
Composite 6PM CST January 19, 1991



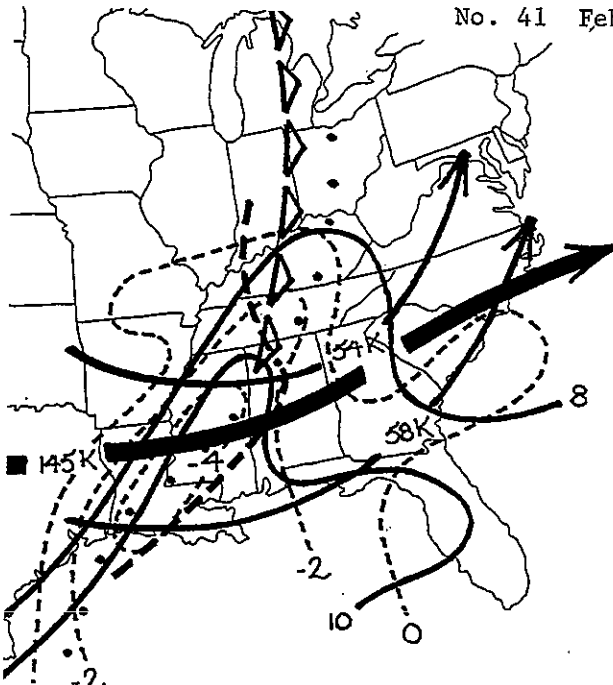
Surface 9PM CST January 19, 1991



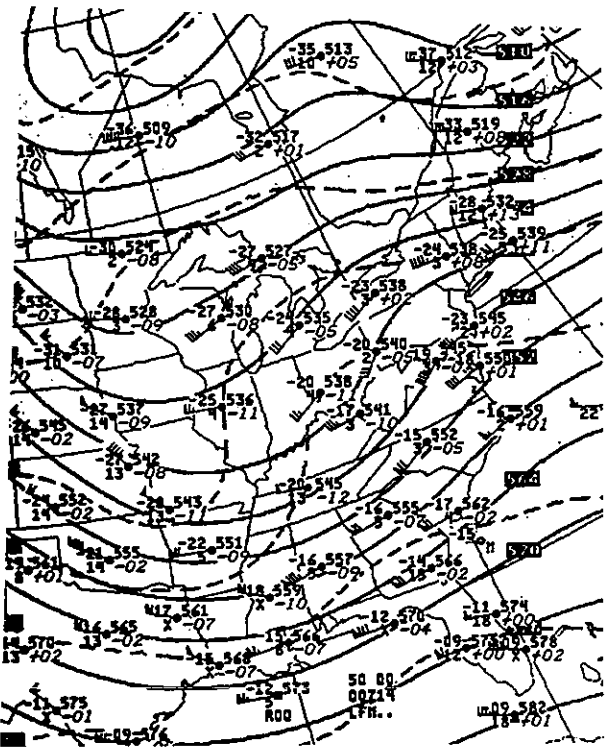
500MB 6PM CST January 19, 1991



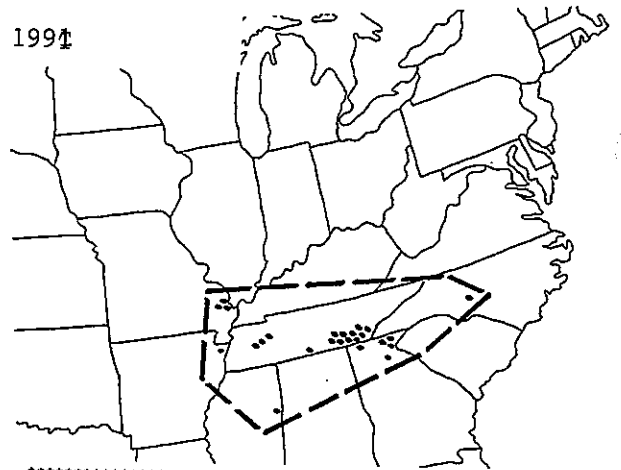
53 GOES 9PM CST January 19, 1991



Composite 6PM CST February 13, 1991

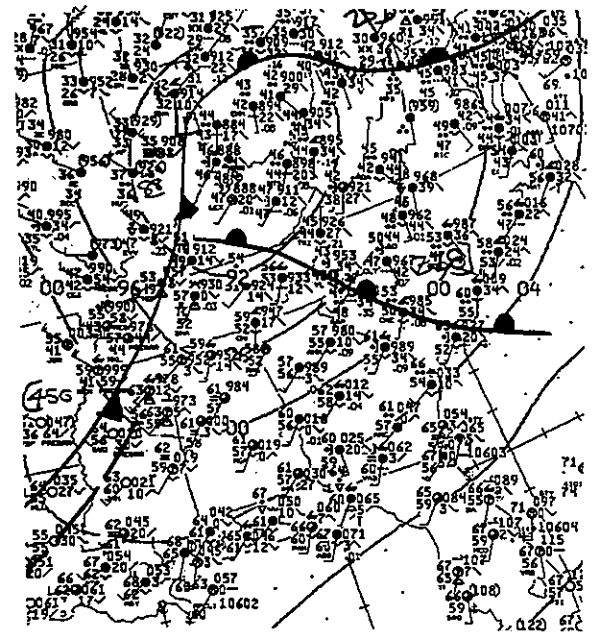


500MB 6PM CST February 13, 1991

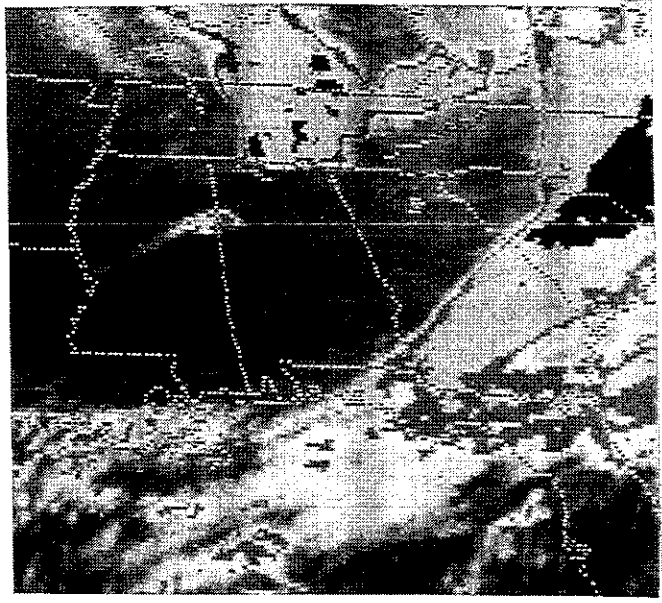


\*\*\*\*\*  
 FEBRUARY 13TH-14TH, 1990  
 \*\*\*\*\*

\*\*\* 25 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 1644-0230 CST \*\*\*



Surface 9PM CST February 13, 1991

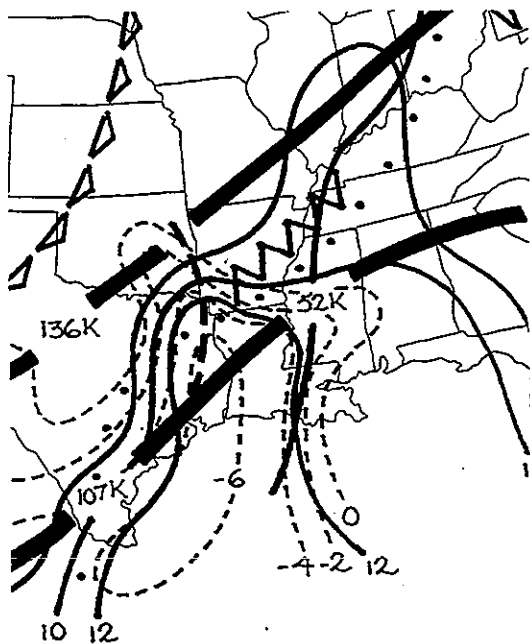


54 GOES 6PM CST February 13, 1991

\*\*\* 75 SEVERE REPORTS \*\*\*

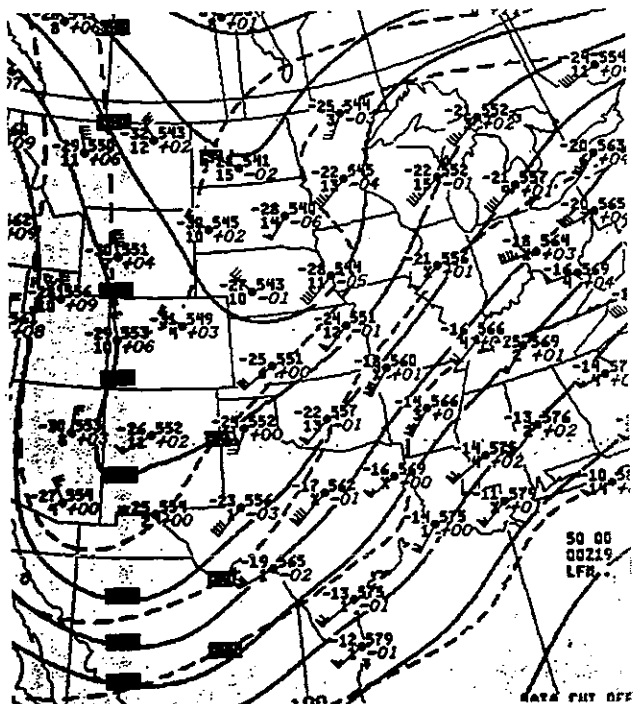
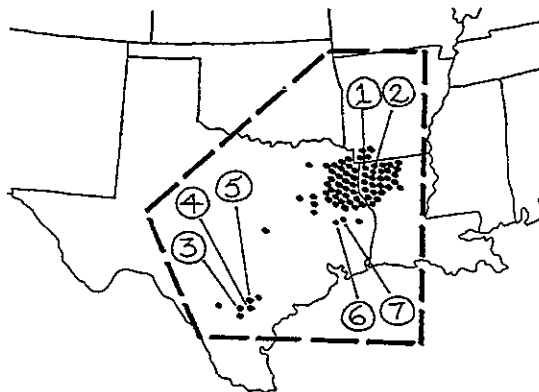
\*\*\* 6 TORNADOES \*\*\*

\*\*\* 1230-0500 CST \*\*\*

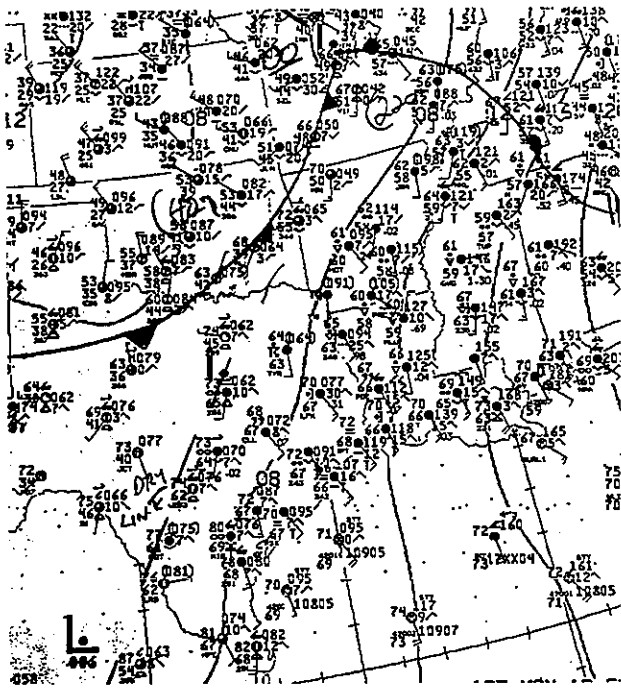


Composite 6PM CST February 18, 1991

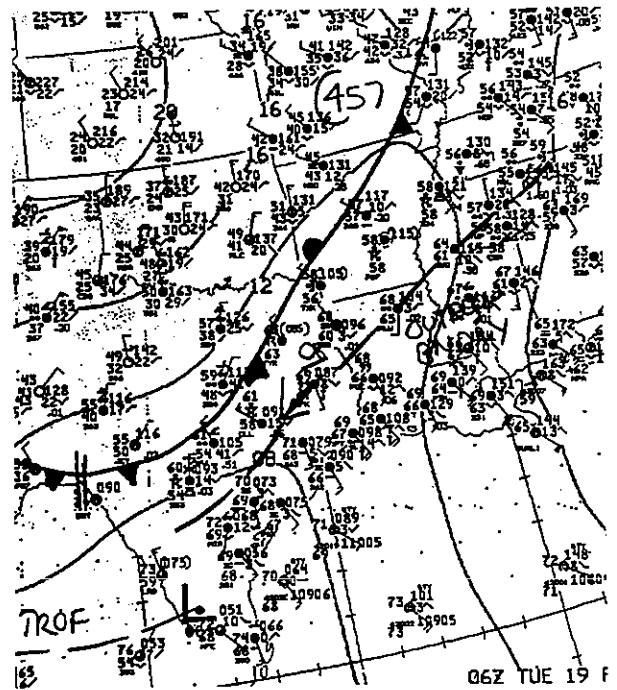
NO	TIME	EVENT	ST	LOCATION	
1	1330	TORNADO (F-2)	TX	5 N ELYSIAN FIELDS	(30 WSW SHV)
2	1335	2.00 INCH HAIL nine million dollars damage	LA	SHREVEPORT	( SHV)
3	0015	100 MPH WIND GUST eight injuries	TX	FLORESVILLE	(30 ESE SKF)
4	0030	4.50 INCH HAIL	TX	CONCRETE	(35 NW VCT)
5	0040	TORNADO (F-2)	TX	SMILEY	(42 ESE RND)
6	0245	TORNADO (F-3) more than half a million dollars damage	TX	DENNING	(34 ENE LFK)
7	0255	TORNADO (F-2)	TX	2 NW SAN AUGUSTINE	(40 ENE LFK)



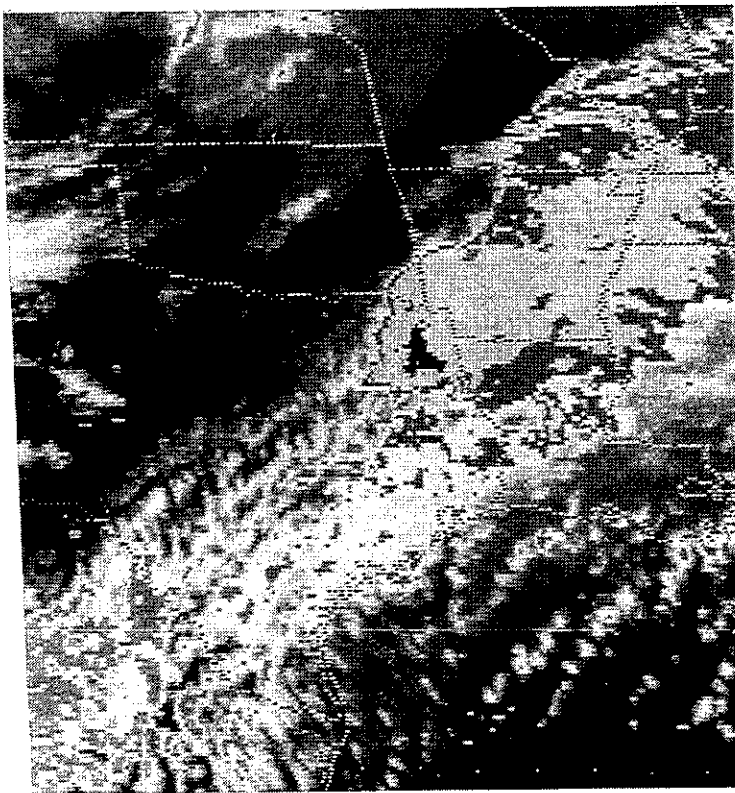
500MB 6PM CST February 18, 1991



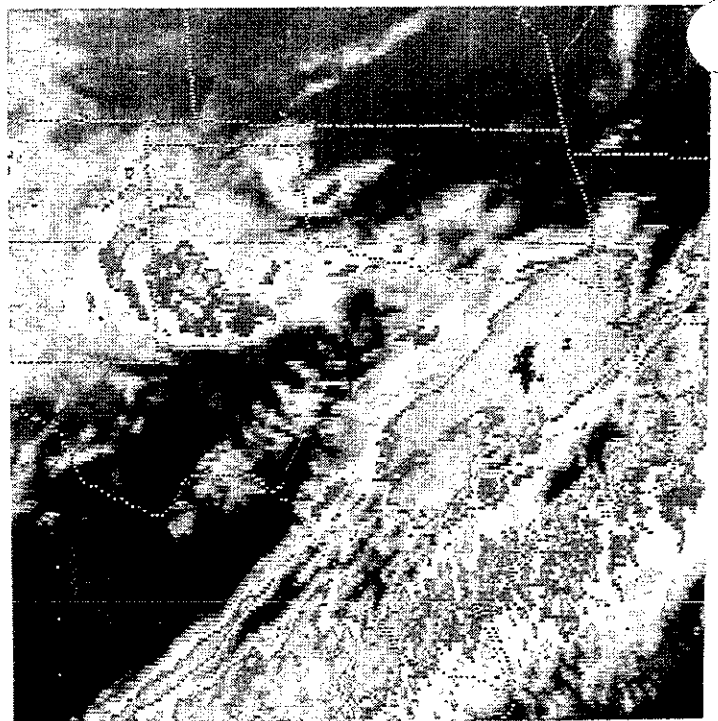
Surface 12 Noon CST February 18, 1991



Surface 12 Midnight CST February 18, 1991



GOES 1PM CST February 18, 1991



GOES 11:30 PM CST February 18, 1991

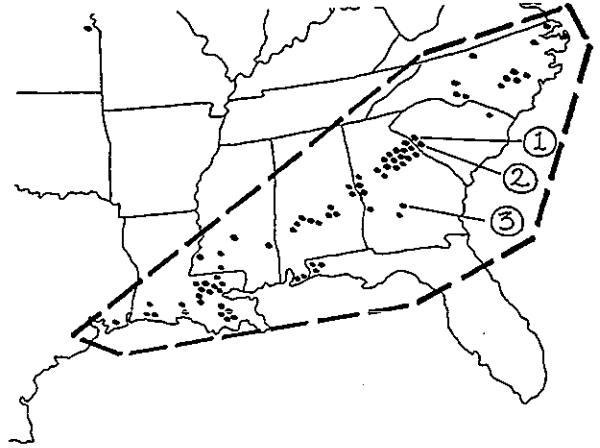
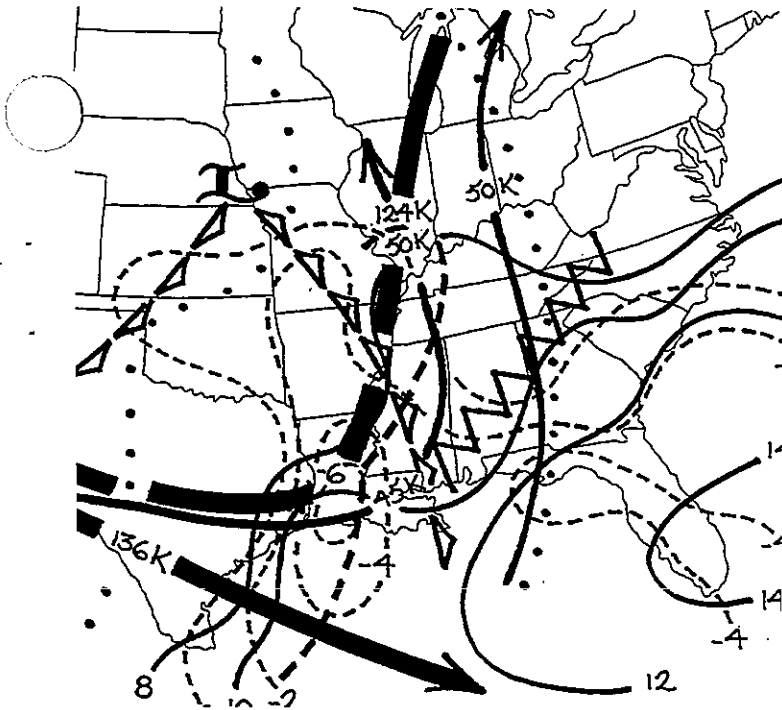


\*\*\* 75 SEVERE REPORTS \*\*\*

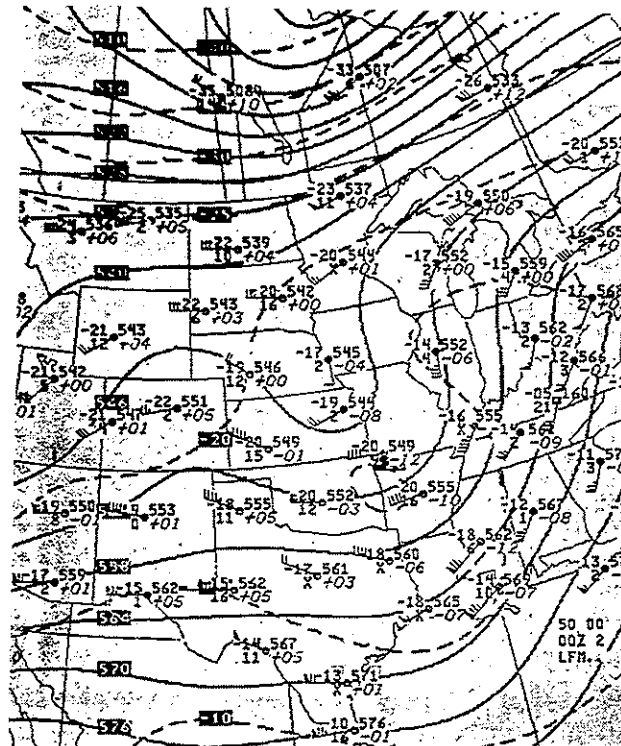
\*\*\* 9 TORNADOES \*\*\*

\*\*\* 0615-0550 CST \*\*\*

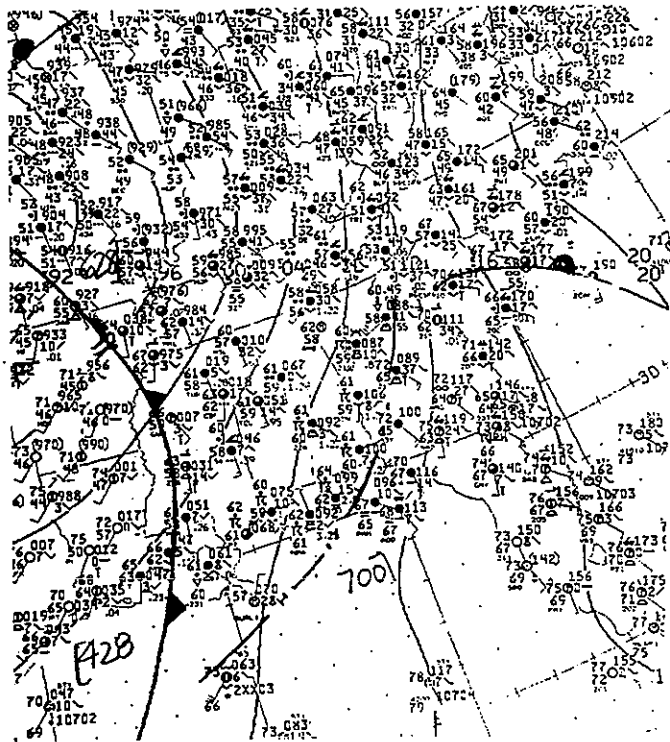
NO	TIME	EVENT	ST	LOCATION	
1	1840	80 MPH WIND GUST	SC	STARR AND IVA	( 8 S AND)
2	2115	TORNADO (F-2)	SC	4 S NEW ELLENTON	(15 ENE AGS)
3	0530	TORNADO (F-1) four injuries	GA	ASHBURN	(32 ENE ABY)



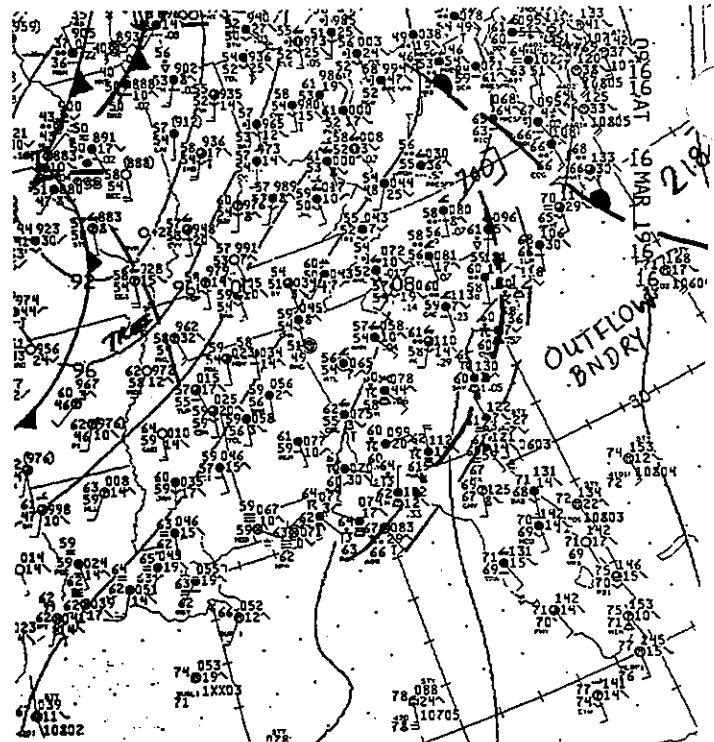
Composite 6PM CST March 1, 1991



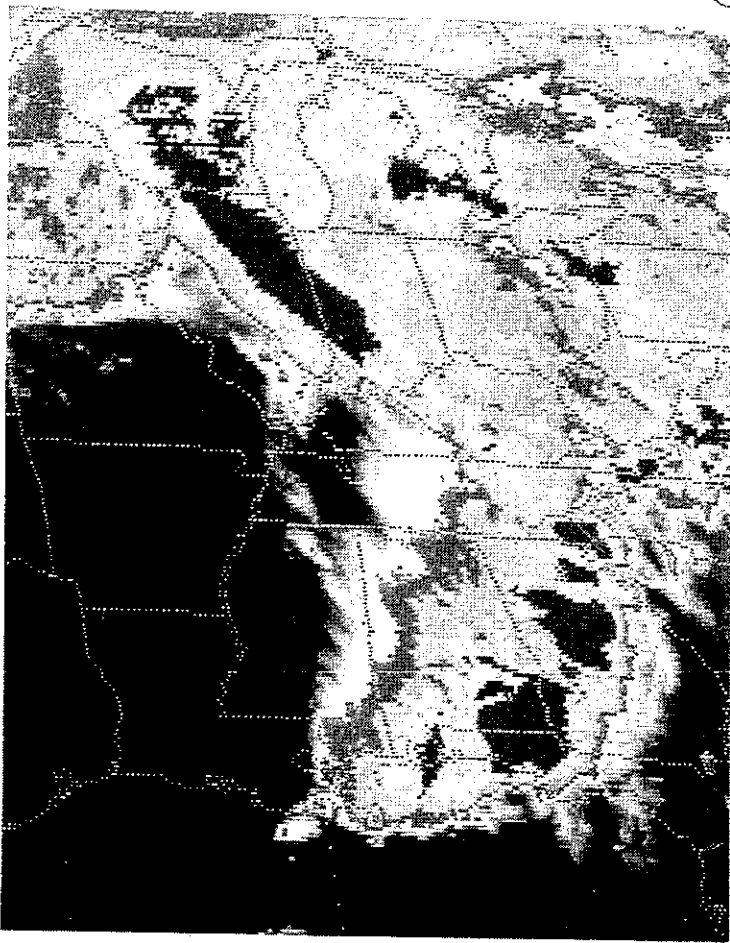
500MB 6PM CST March 1, 1991



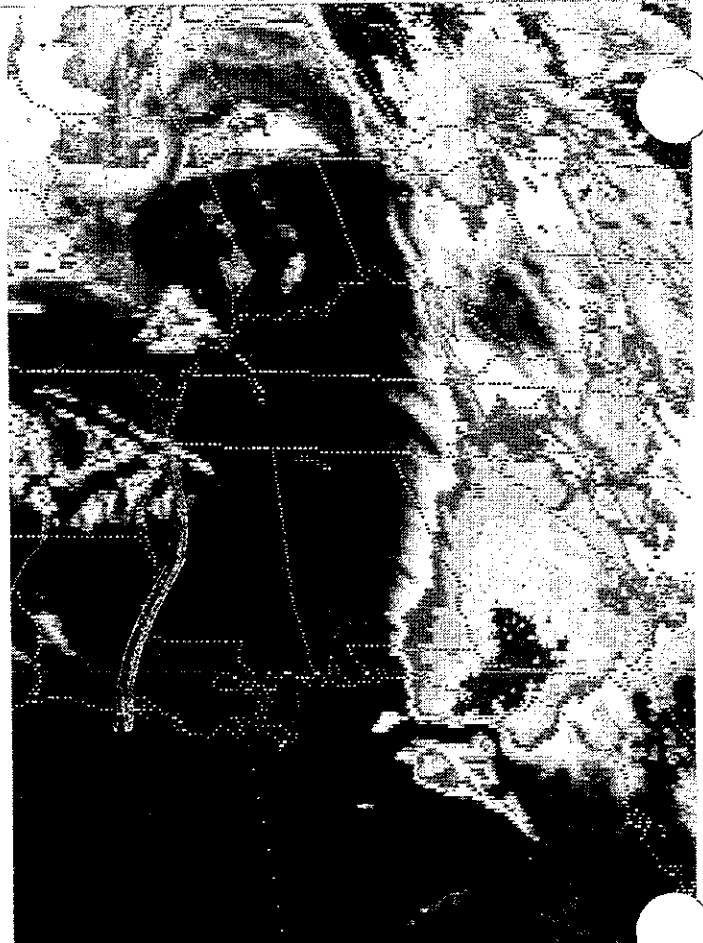
Surface 6PM CST March 1, 1991



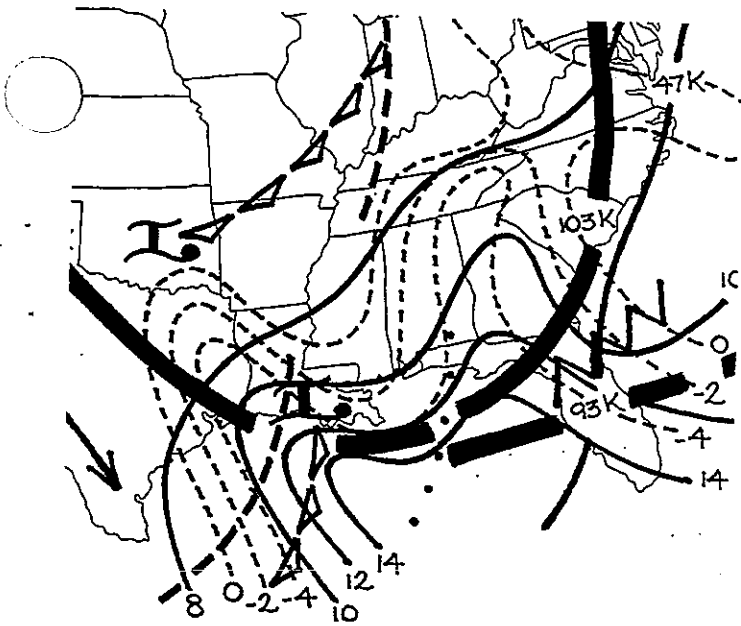
Surface 3AM CST March 2, 1991



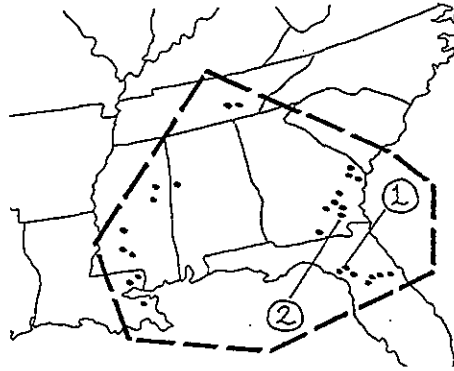
GOES 6:30 PM CST March 1, 1991



GOES 4:30AM CST March 2, 1991

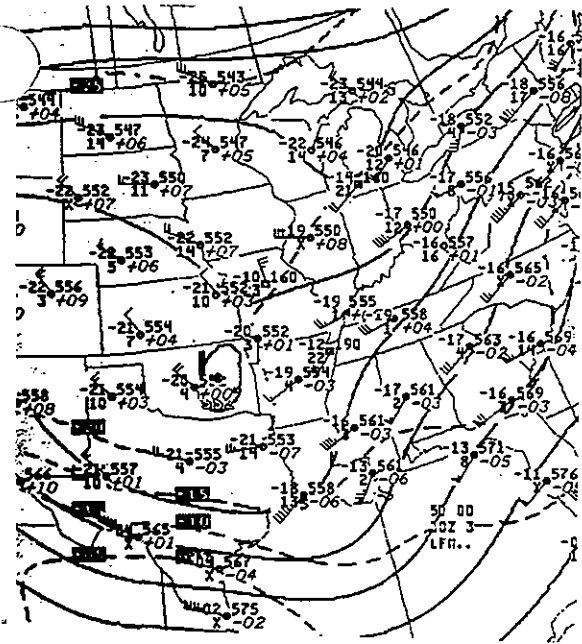


Composite 6PM CST March 2, 1991

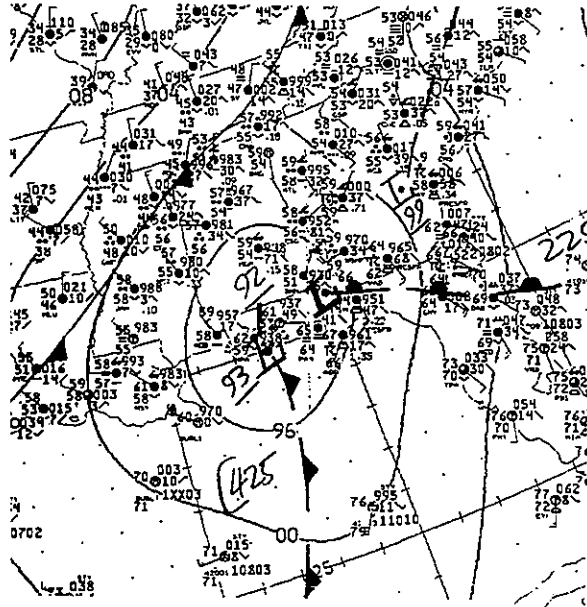


\*\*\* 30 SEVERE REPORTS \*\*\*  
 \*\*\* 2 TORNADOES \*\*\*  
 \*\*\* 1221-0545 CST \*\*\*

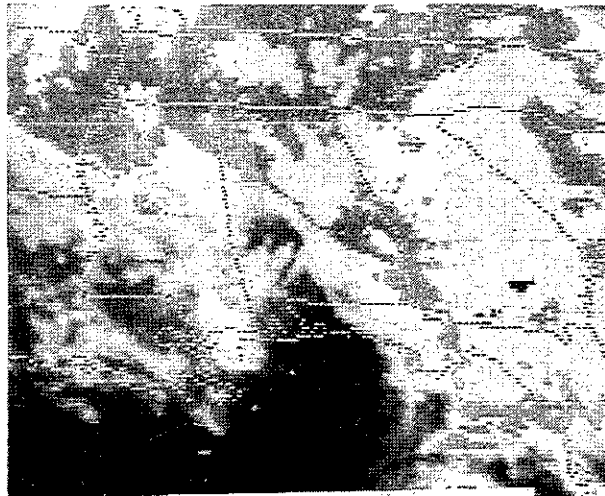
NO	TIME	EVENT	ST	LOCATION	
1	0255	80 MPH WIND GUST	FL	2 N PERRY	(45 NW CITY)
2	0530	TORNADO (F-1) twenty injuries	GA	4 SSW BLACKSHEAR	(22 SE AMG)



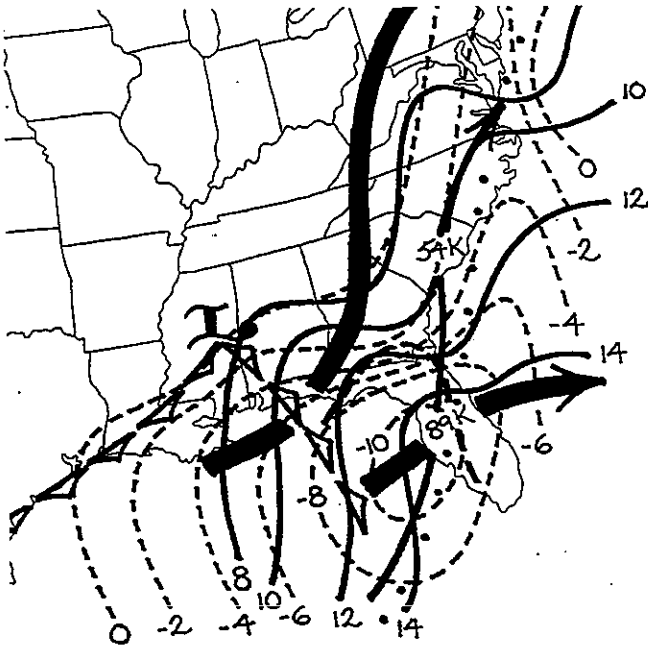
500MB 6PM CST March 2, 1991



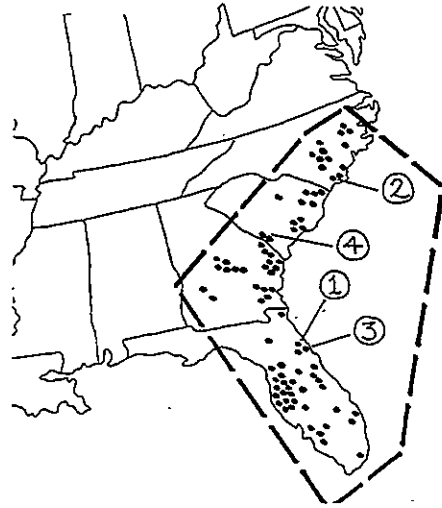
Surface 3AM CST March 3, 1991



GOES 2AM CST March 3, 1991

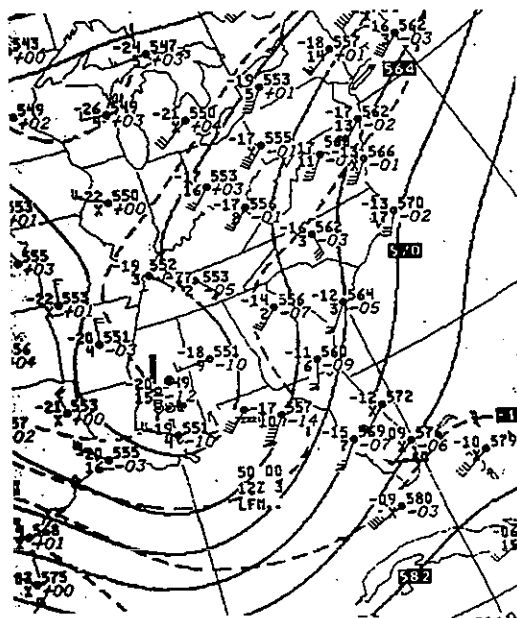


Composite 6AM CST March 3, 1991

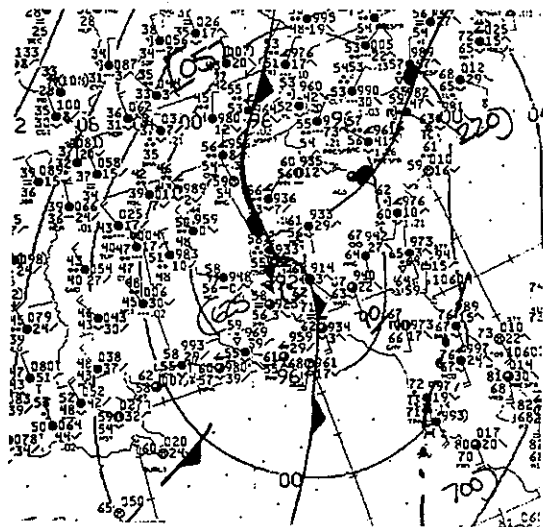


\*\*\* 82 SEVERE REPORTS \*\*\*  
 \*\*\* 14 TORNADOES \*\*\*  
 \*\*\* 0600-1730 CST \*\*\*

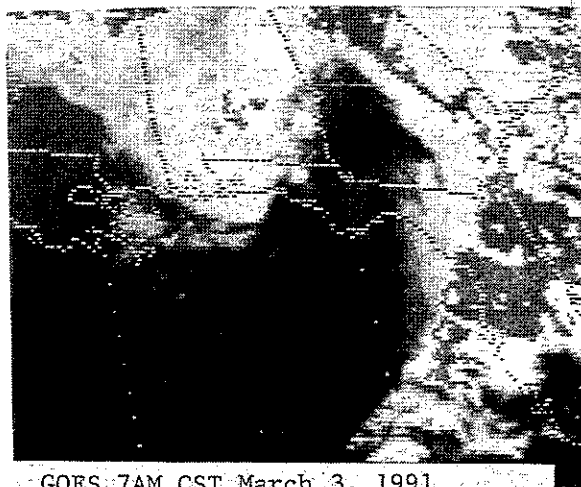
NO	TIME	EVENT	ST	LOCATION	
1	0923	TORNADO (F-1) 1.3 million dollars damage	FL	GEORGETOWN	(38 WNW DAB)
2	0947	TORNADO (F-1) three injuries	NC	CERRO GORDO	(43 N MYR)
3	1045	2.50 INCH HAIL one injury	FL	ORMOND-BY-THE-SEA	(11 N DAB)
4	1400	TORNADO (F-2) TORNADO (F-2)	SC	8 E JACKSON 9 E JACKSON	(15 ENE AGS)



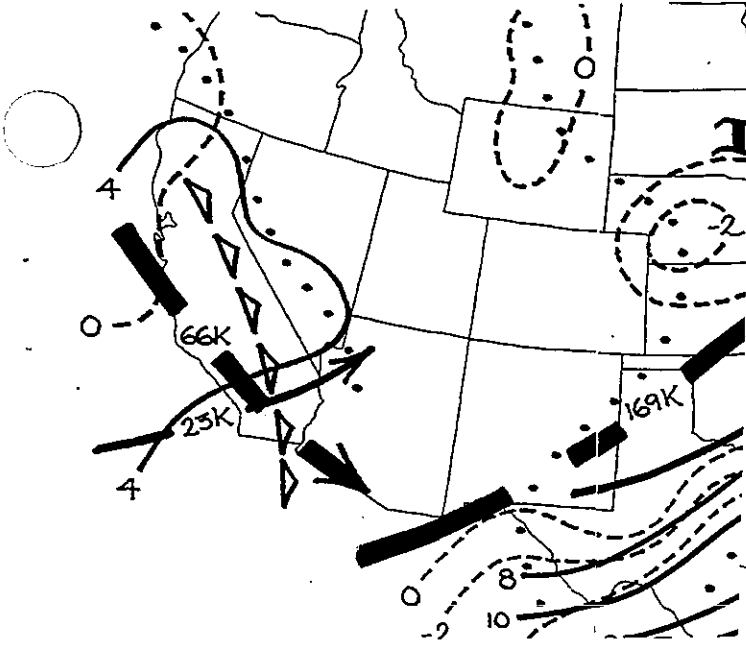
500MB 6AM CST March 3, 1991



Surface 9AM CST March 3, 1991



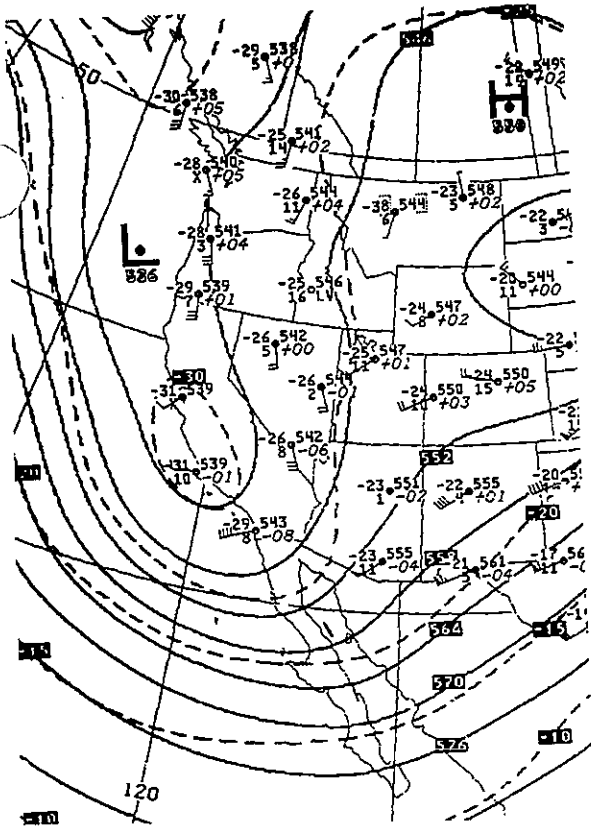
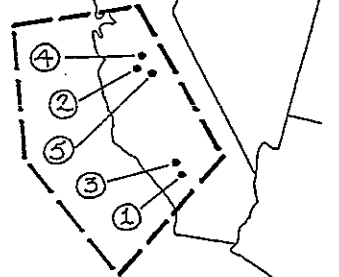
GOES 7AM CST March 3, 1991



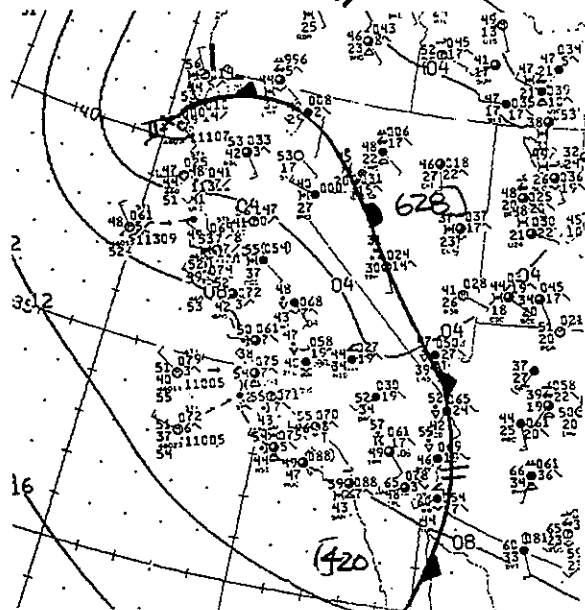
Composite 6PM CST March 20, 1991

\*\*\* 5 SEVERE REPORTS \*\*\*  
 \*\*\* 3 TORNADOES \*\*\*  
 (more than a dozen reports of funnel clouds)  
 \*\*\* 1330-1655 CST \*\*\*

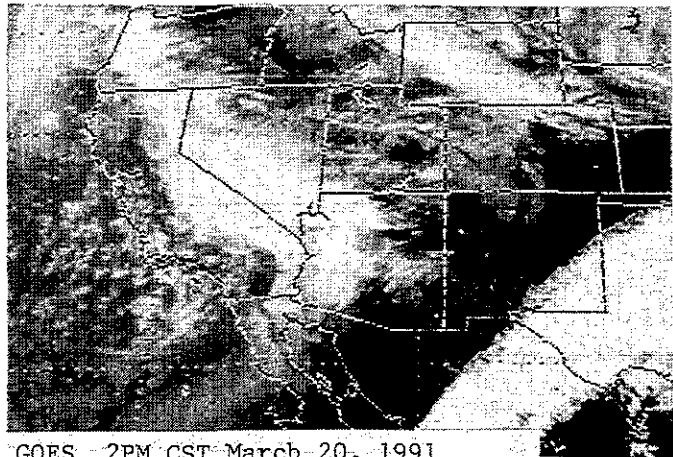
NO	TIME	EVENT	ST	LOCATION	
1	1330	TORNADO (F-0)	CA	RIVERSIDE	( RIV)
2	1429	0.75 INCH HAIL hail accumulated two inches deep	CA	MADERA COUNTY	(24 WNW FAT)
3	1445	TORNADO (F-0)	CA	MUSCOY	( 8 WNW SBD)
4	1630	TORNADO (F-0)	CA	6 SW CHOWCHILLA	(25 SSE MER)
5	1655	0.75 INCH HAIL	CA	FRESNO	( FAT)



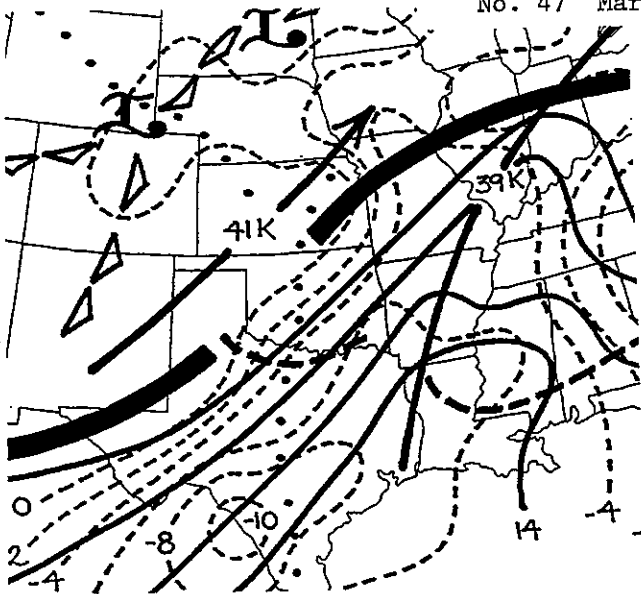
500MB 6PM CST March 20, 1991



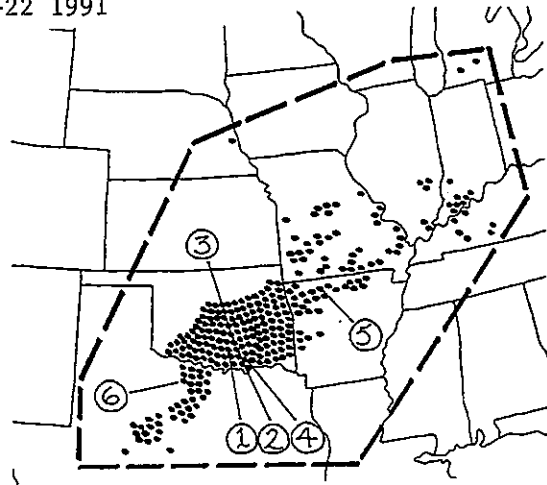
Surface 3PM CST March 20, 1991



61 GOES 2PM CST March 20, 1991

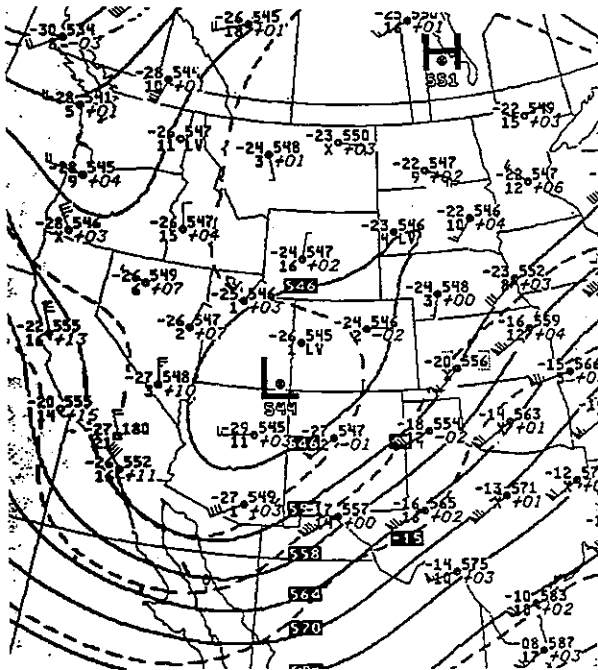


Composite 6PM CST March 21, 1991

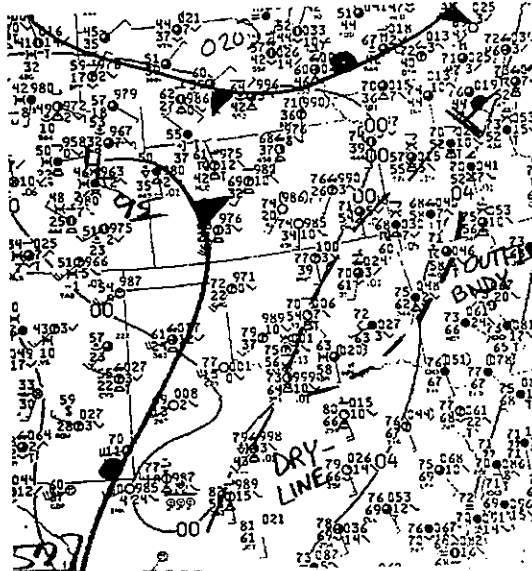


\*\*\* 256 SEVERE REPORTS \*\*\*  
 \*\*\* 18 TORNADOES \*\*\*  
 \*\*\* 1110-0528 CST \*\*\*

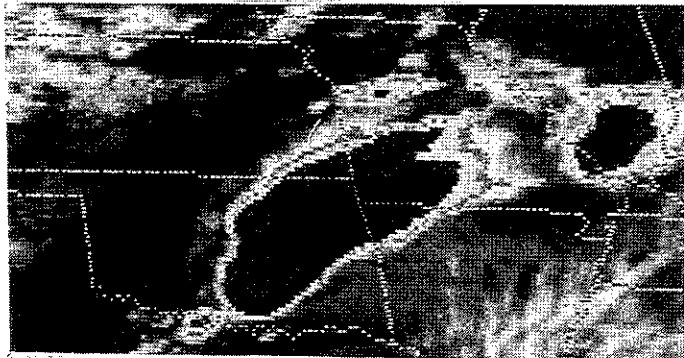
NO	TIME	EVENT	ST	LOCATION	
1	1611	80 MPH WIND GUST	OK	ARDMORE	( ADM)
2	1625	TORNADO (F-3)	OK	ADA	(37 NE ADM)
		two injuries, more than half a million dollars damage			
3	1710	TORNADO (F-2)	OK	S NW CANEY	(45 E ADM)
		six injuries, 19 mile path length			
4	1802	TORNADO (F-2)	OK	DURANT	(41 ESE ADM)
5	1830	TORNADO (F-2)	AR	VALLEY SPRINGS	(11 SE HRO)
		twelve injuries, more than half a million dollars damage			
6	0125	4.00 INCH HAIL	TX	ALVORD	(42 NNW FTW)



500MB 6PM CST March 21, 1991



Surface 6PM CST March 21, 1991



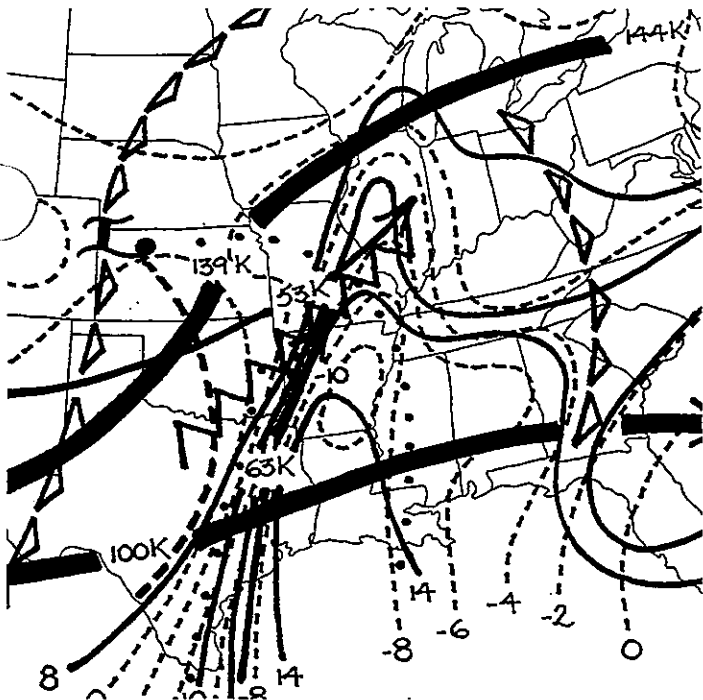
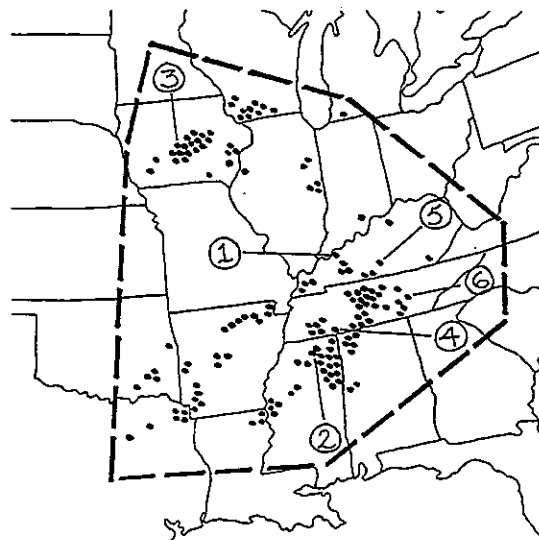
GOES 4PM CST March 21, 1991

\*\*\* 153 SEVERE REPORTS \*\*\*

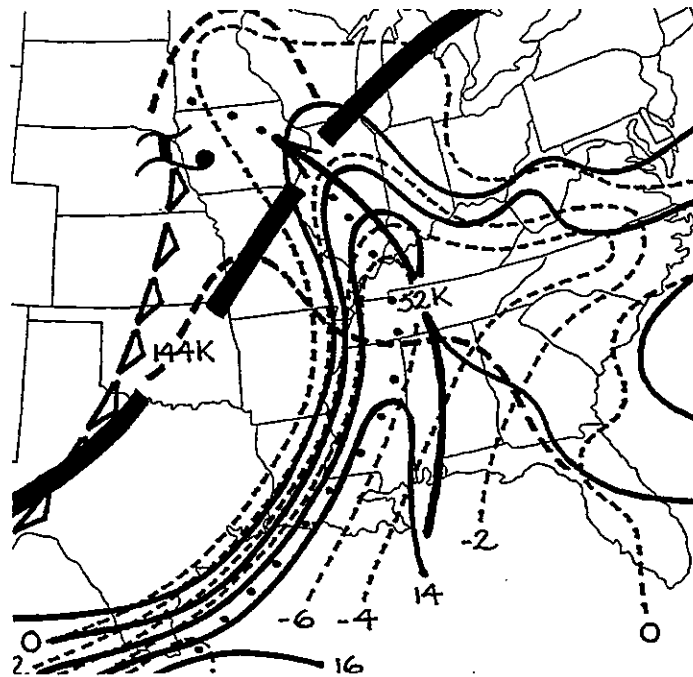
\*\*\* 23 TORNADOES \*\*\*

\*\*\* 0602-0235 CST \*\*\*

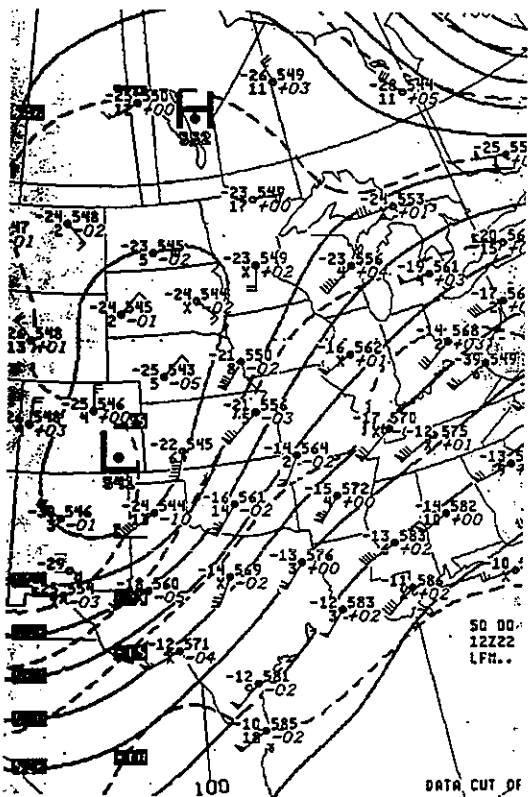
NO	TIME	EVENT	ST	LOCATION	
1	1208	3.00 INCH HAIL	KY	S E CORYDON	(23 SSW EVV)
2	1600	TORNADO (F-3) three injuries, 23 mile path length	MS	7 S ASHLAND	(45 NW TUP)
3	1620	TORNADO (F-3) more than half a million dollars damage, 43 mile path	IA	HUXLEY	(25 N DSM)
4	1635	TORNADO (F-3) four deaths, 45 injuries, 22 mile path length more than 15 million dollars damage	TN	SELMER	(33 SSE MKL)
5	1750	TORNADO (F-2) one death, 12 injuries, 25 mile path length more than half a million dollars damage	KY	RICHARDSVILLE	(10 NNW BWG)
6	1805	TORNADO (F-2) one death, 14 injuries, more than five million dollars damage	TN	SWEETWATER	(30 WSW TYS)



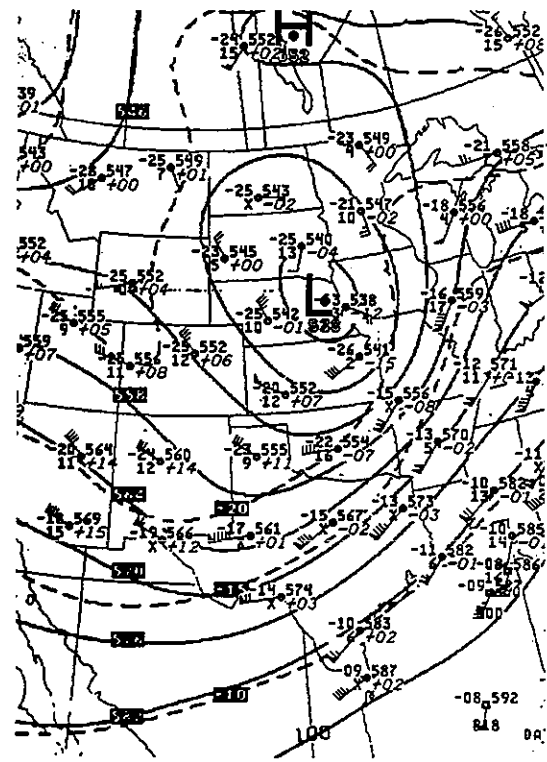
Composite 6AM CST March 22, 1991



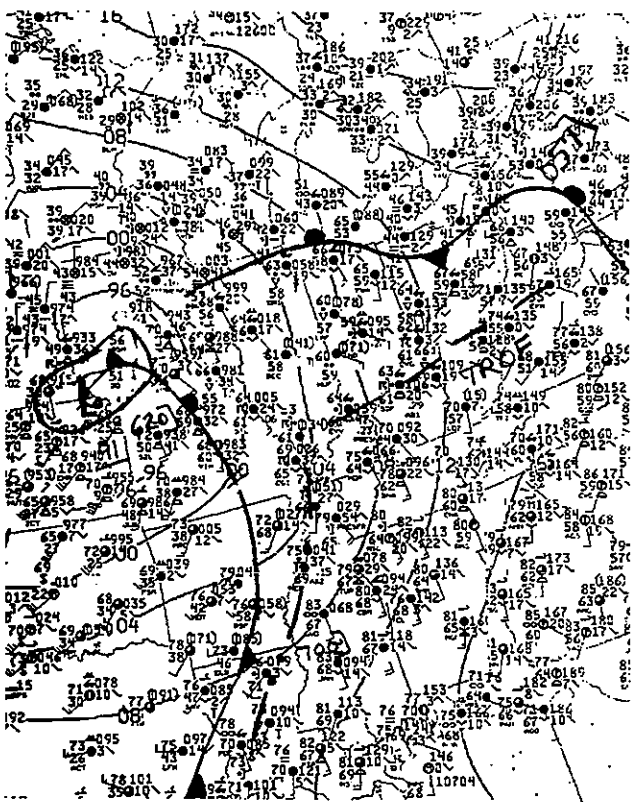
Composite 6PM CST March 22, 1991



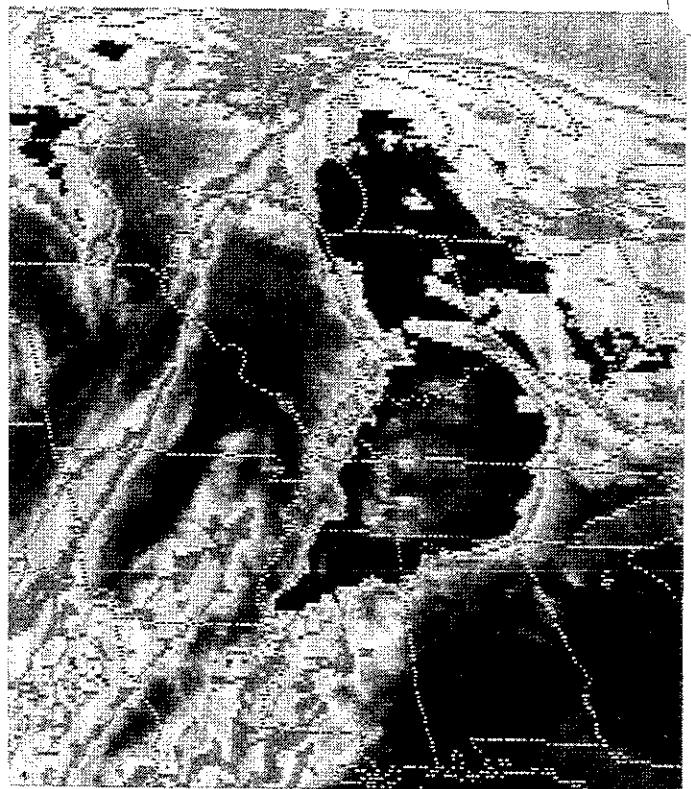
500MB 6AM CST March 22, 1991



500MB 6PM CST March 22, 1991



Surface 3PM CST March 22, 1991

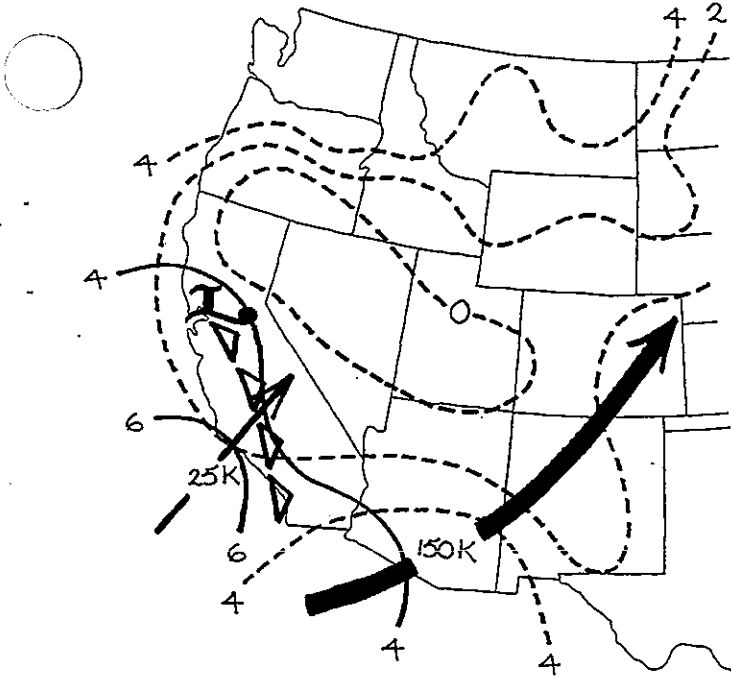


GOES 5PM CST March 22, 1991

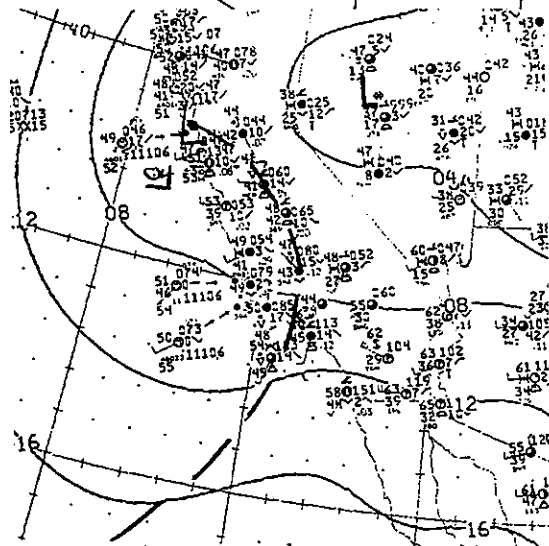
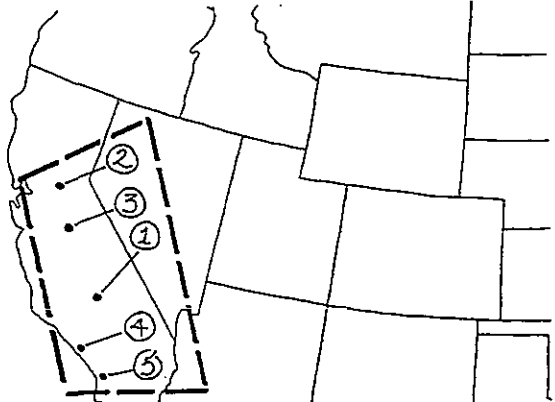


\*\*\* 5 TORNADOES \*\*\*

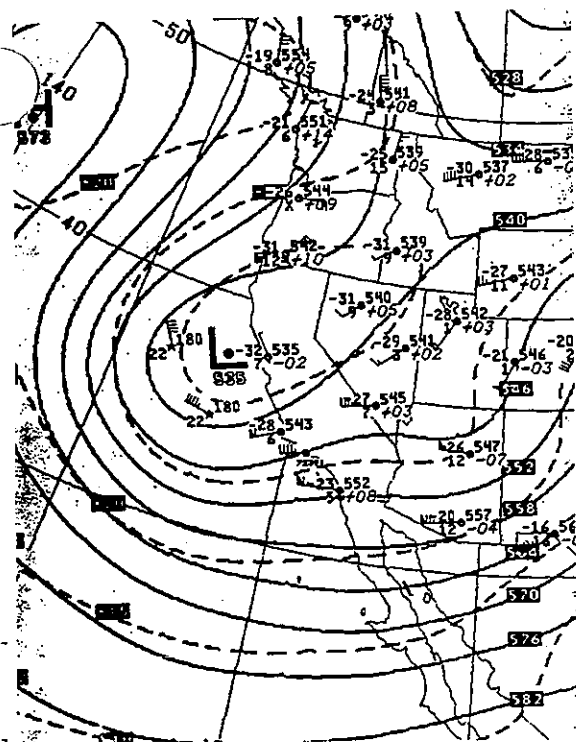
NO	TIME	EVENT	ST	LOCATION	
1	1607	TORNADO (F-0)	CA	RIDGECREST	( 3 S NID)
2	1915	TORNADO (F-0)	CA	S W LODI	(28 SSE SAC)
3	1940	TORNADO (F-0)	CA	FLAINSBURG	(15 ESE MER)
4	0035	TORNADO (F-1)	CA	HUNTINGTON PARK	( 6 E LAX)
5	0400	TORNADO (F-1)	CA	SAN MARCOS	(20 N NKX)



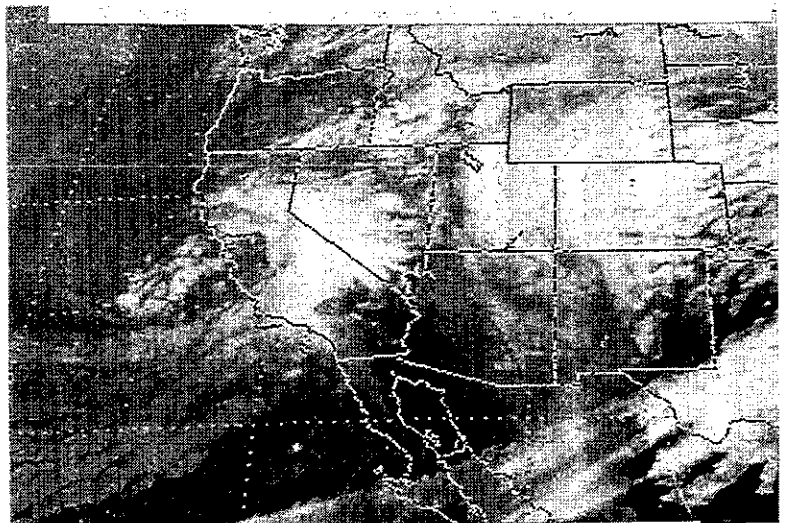
Composite 6PM CST March 26, 1991



Surface 6PM CST March 26, 1991



500MB 6PM CST March 26, 1991

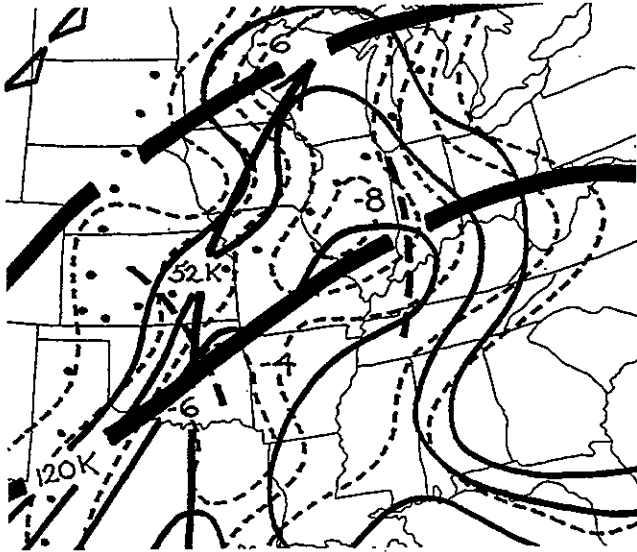


65 GOES 6:30 PM CST March 26, 1991

\*\*\* 200 SEVERE REPORTS \*\*\*

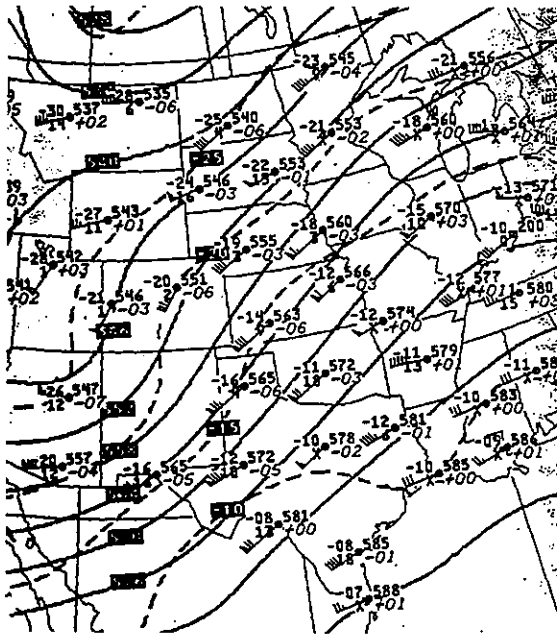
\*\*\* 20 TORNADOES \*\*\*

\*\*\* 1520-0550 CST \*\*\*

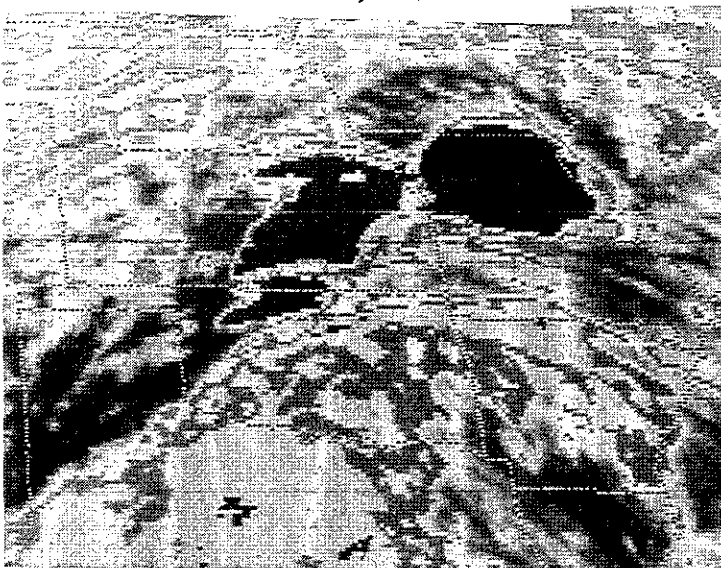
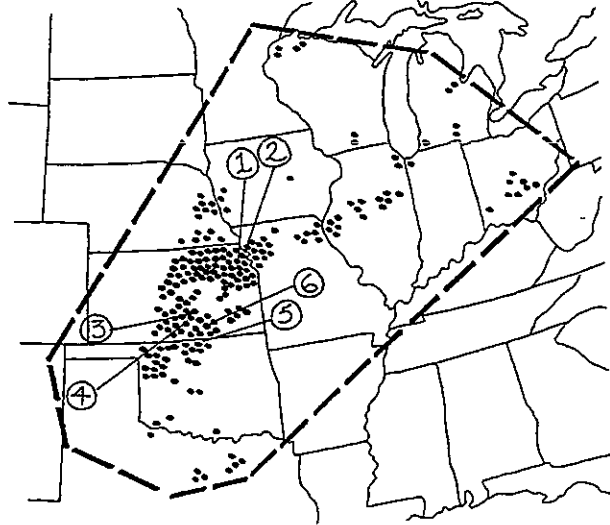


Composite 6PM CST March 26, 1991

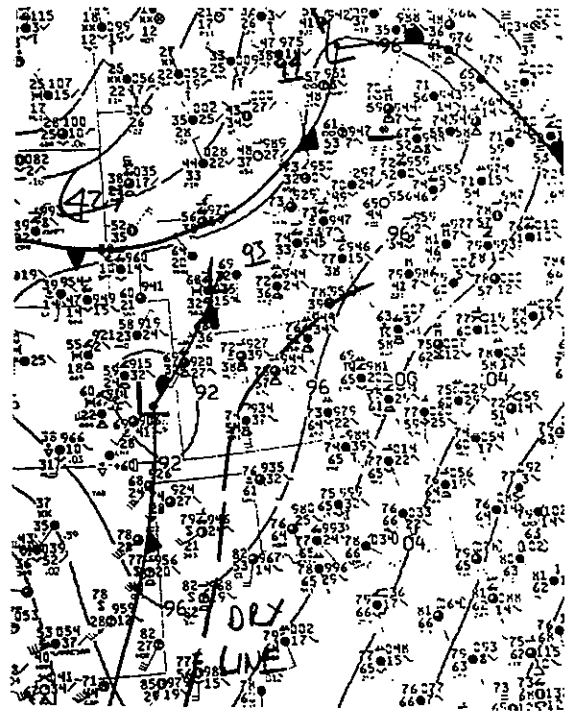
NO	TIME	EVENT	ST	LOCATION	
1	1640	3.00 INCH HAIL more than 18 million dollars damage	KS	LAWRENCE	(22 ESE TOP)
2	1757	84 MPH WIND GUST	KS	1 E LINWOOD	(26 SW NCI)
3	1757	TORNADO (F-3) one injury, 26 mile path length	KS	3 W TURON	(36 SW HUT)
4	1845	TORNADO (F-4) five injuries, 20 million dollars damage	KS	9 SW HUTCHINSON	( 9 SW HUT)
5	2005	TORNADO (F-3) 44 mile path, more than half a million dollars damage	OK	3 NE NASH	(23 NNW END)
6	2145	TORNADO (F-3) six injuries, one million dollars damage	KS	5 WSW EATON	(37 SE IAB)



500MB 6PM CST March 26, 1991



GOES 6PM CST March 26, 1991



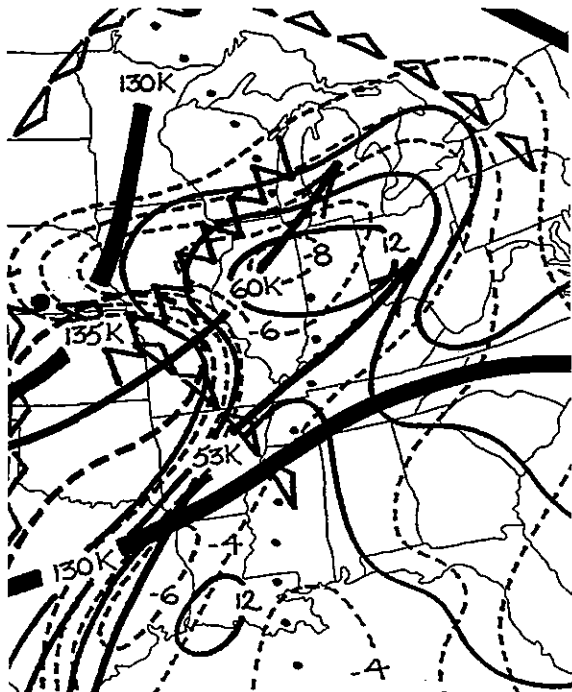
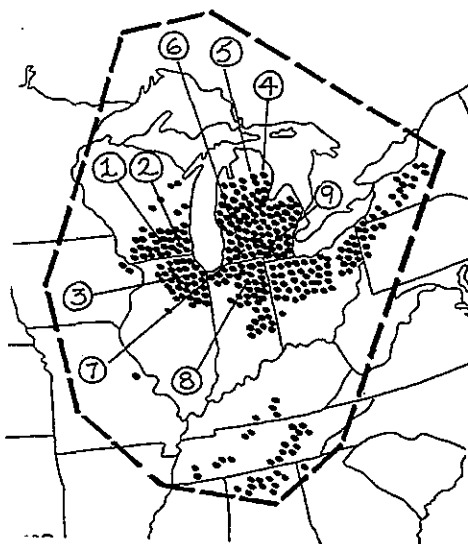
Surface 6PM CST March 26, 1991

\*\*\* 318 SEVERE REPORTS \*\*\*

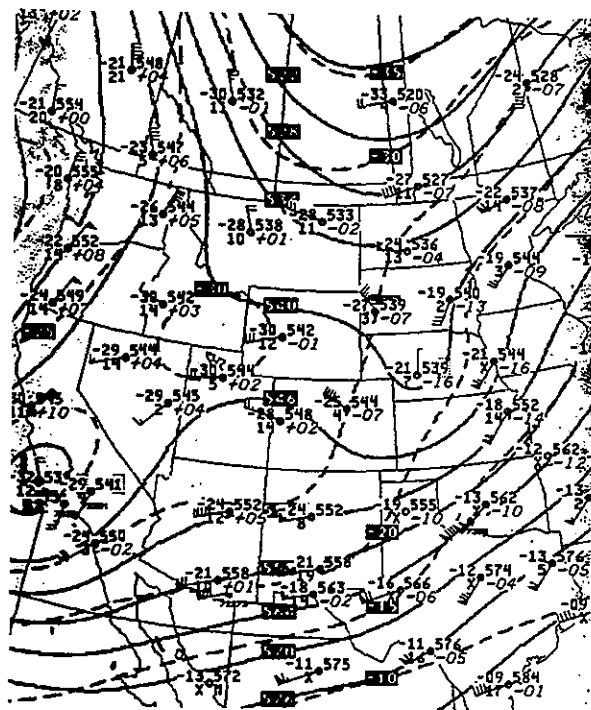
\*\*\* 28 TORNADOES \*\*\*

\*\*\* 0620-0200 CST \*\*\*

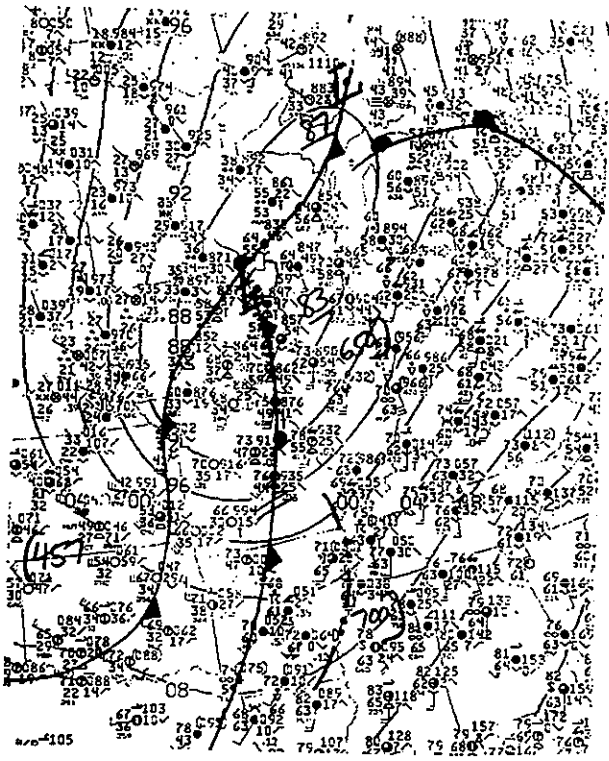
NO	TIME	EVENT	ST	LOCATION	
1	1350	TORNADO (F-2) one death, five injuries, 35 mile path length more than five million dollars damage	WI	2 SW BROOKLYN	(19 S MSN)
2	1450	89 MPH WIND GUST	WI	FRANKLIN	(10 WSW MKE)
3	1555	TORNADO (F-3) seven injuries, six million dollars damage	IL	ROMEOVILLE	(19 WSW MDW)
4	1815	TORNADO (F-3) 35 mile path, more than half a million dollars damage	MI	SAGE LAKE	(16 NNE OSC)
5	1820	TORNADO (F-3) 20 mile path, more than half a million dollars damage	MI	5 E GLENNIE	(12 WNW OSC)
6	1825	4.50 INCH HAIL	MI	PORTAGE	( 2 SSW A20)
7	1900	TORNADO (F-3) eighteen injuries	MI	LEE CENTER	(18 ENE BTL)
8	1920	TORNADO (F-3) one death, 24 injuries, 27 million dollars damage, 26 mile path length	IN	ASHELY	(37 NNE FWA)
9	2007	68 MPH WIND GUST ten million dollars damage	MI	ANN ARBOR	( ARB)



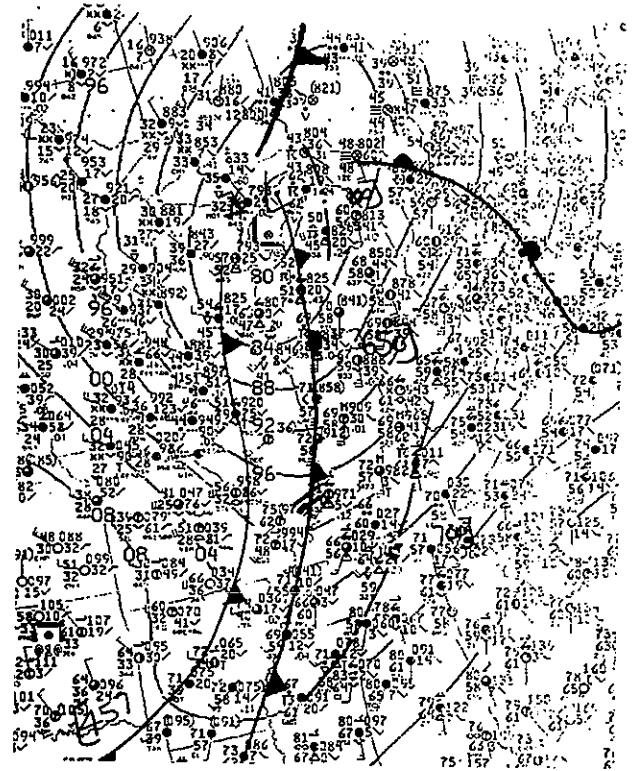
Composite 6AM CST March 27, 1991



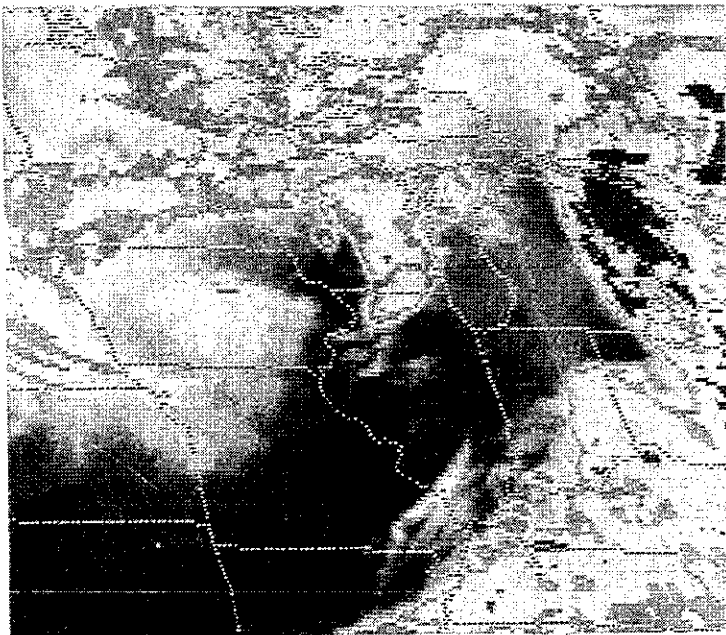
500MB 6AM CST March 27, 1991



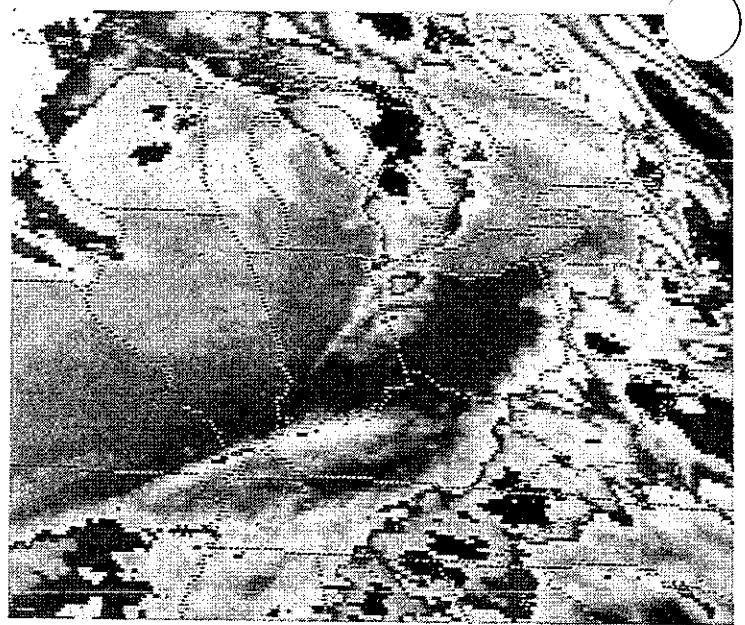
Surface 12NOON CST March 27, 1991



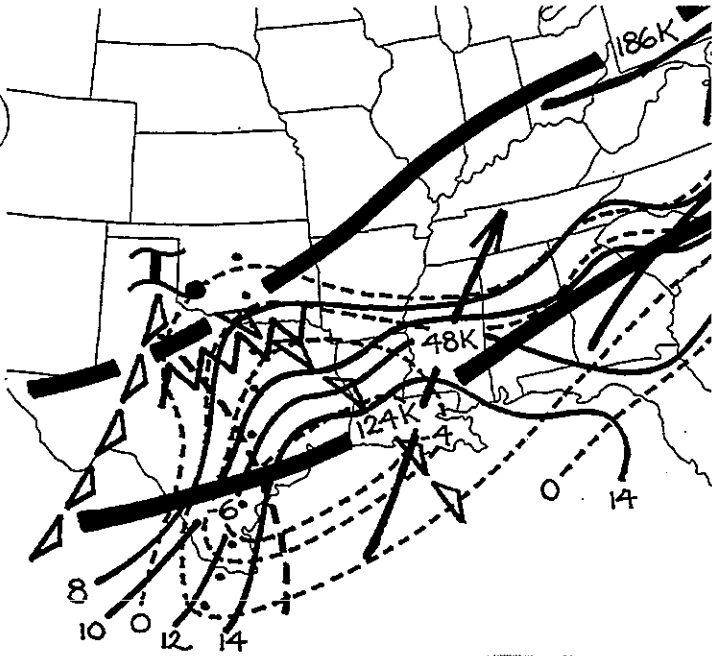
Surface 6PM CST March 27, 1991



GOES 2PM CST March 27, 1991



GOES 8PM CST March 27, 1991



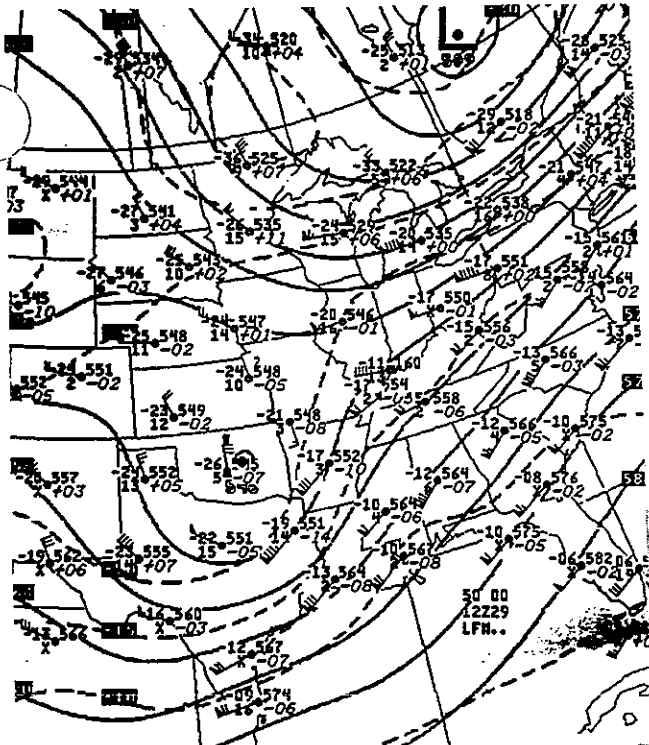
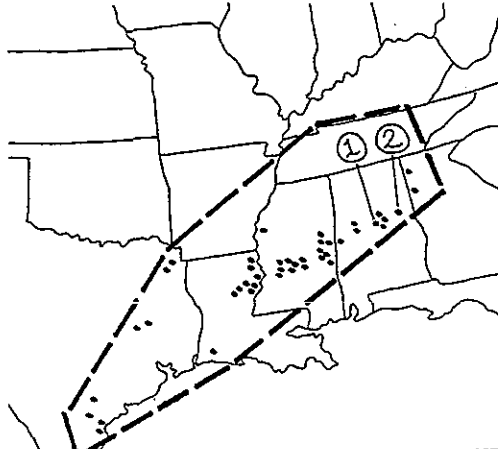
Composite 6PM CST March 28, 1991

\*\*\* 45 SEVERE REPORTS \*\*\*

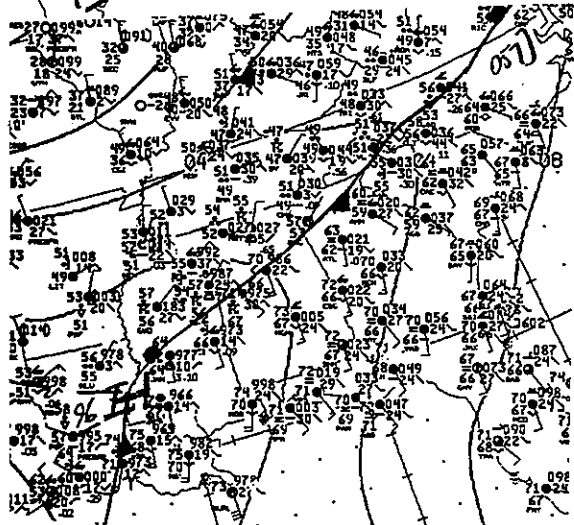
\*\*\* 3 TORNADES \*\*\*

\*\*\* 1550-0530 CST \*\*\*

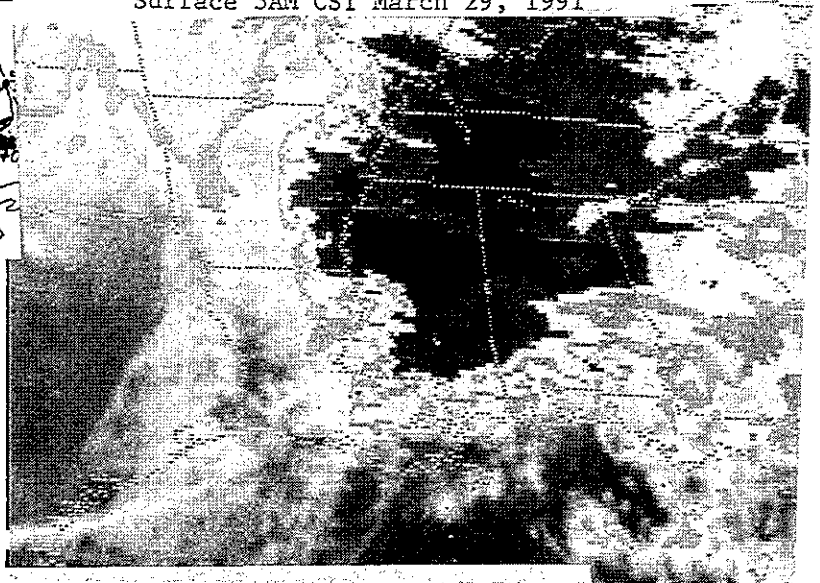
NO	TIME	EVENT	ST	LOCATION	
1	0425	69 MPH WIND GUST	AL	BIRMINGHAM	( BHM)
		five million dollars damage			
2	0530	TORNADO (F-1)	AL	MUNFORD	( 6 WSW ANB)
		five deaths, 13 injuries			



500MB 6PM CST March 28, 1991



Surface 3AM CST March 29, 1991



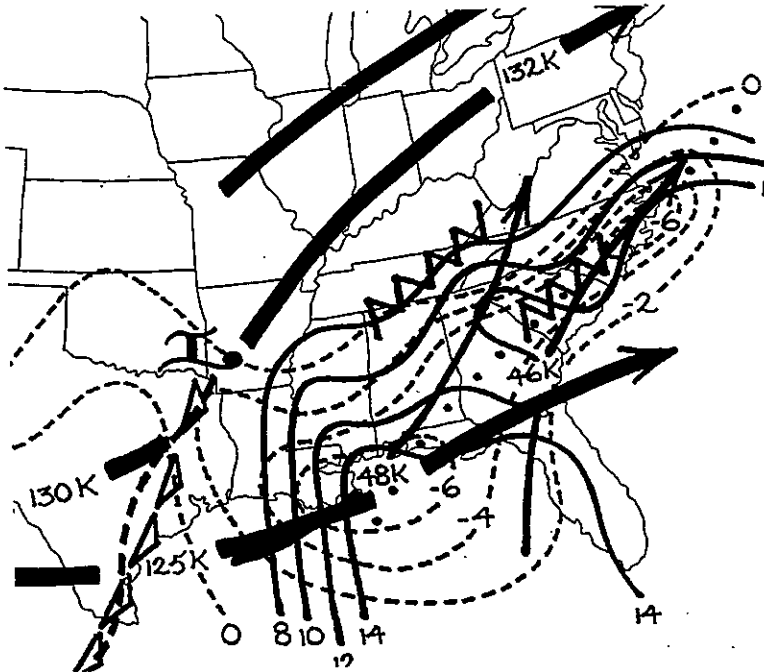
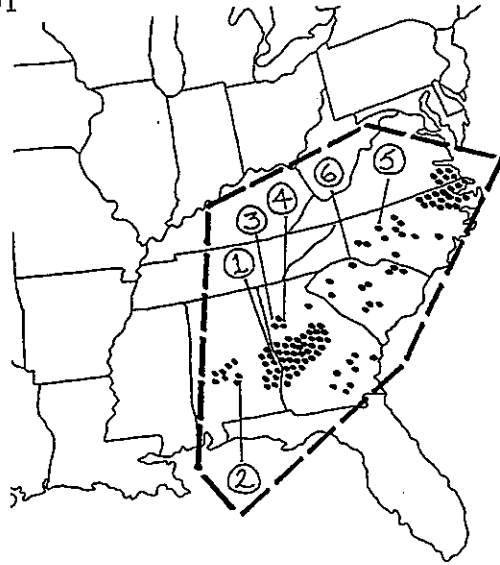
69 GOES 4AM CST March 29, 1991

\*\*\* 114 SEVERE REPORTS \*\*\*

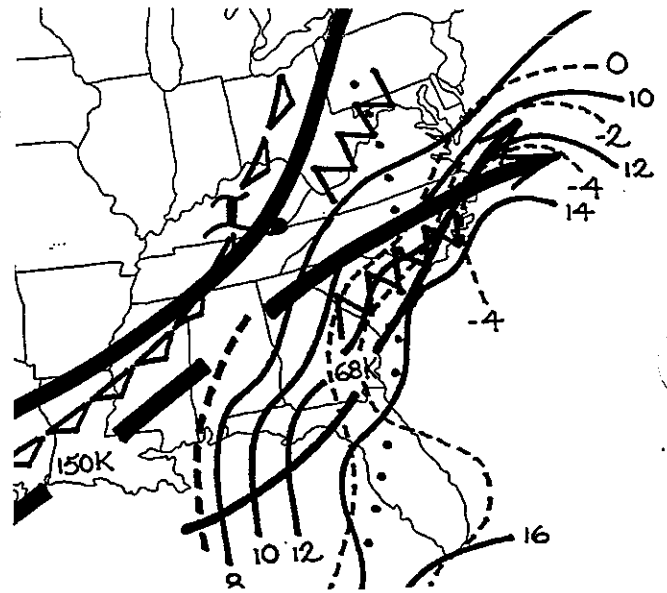
\*\*\* 20 TORNADOES \*\*\*

\*\*\* 0630-2000 CST \*\*\*

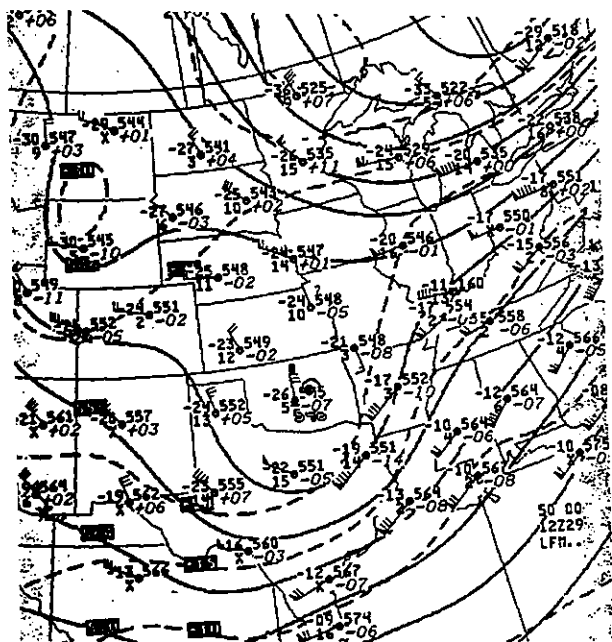
NO	TIME	EVENT	ST	LOCATION	
1	0640	TORNADO (F-2)	AL	LADONIA	( 8 WSW CSG)
		sixteen injuries, 1.5 million dollars damage			
2	0715	WIND DAMAGE	AL	SELMA	(36 W MGM)
		thirteen injuries, two million dollars damage			
3	0715	TORNADO (F-2)	GA	DOUGLASVILLE	(13 W FTY)
		two injuries, 6.5 million dollars damage			
4	0730	TORNADO (F-3)	GA	2 NW AUSTELL	( 7 W FTY)
		twenty-five injuries, 11.8 million dollars damage path width up to one half of a mile			
5	1345	TORNADO (F-2)	NC	ASHEBORO	(27 SSE GSO)
		28 mile path length, 0.6 million dollars damage			
6	1400	TORNADO (F-0)	SC	2 E PAGELAND	(43 SE CLT)
		four injuries			



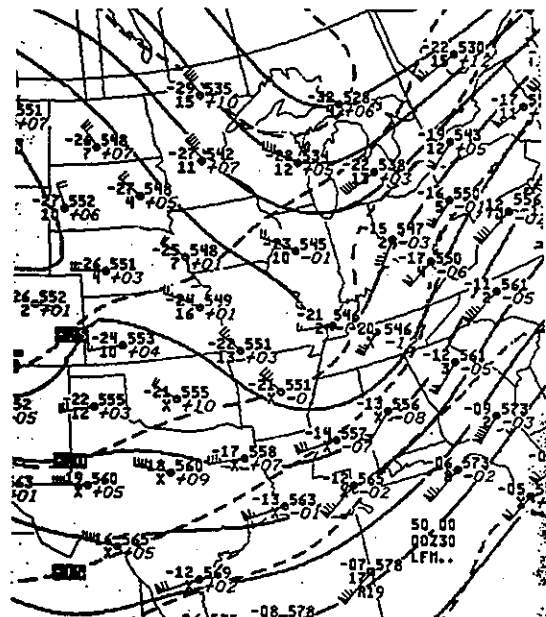
Composite 6AM CST March 29, 1991



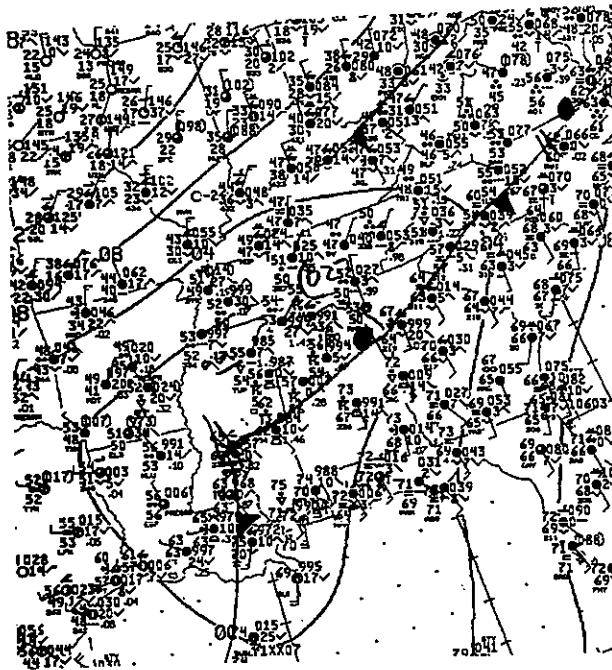
Composite 6PM CST March 29, 1991



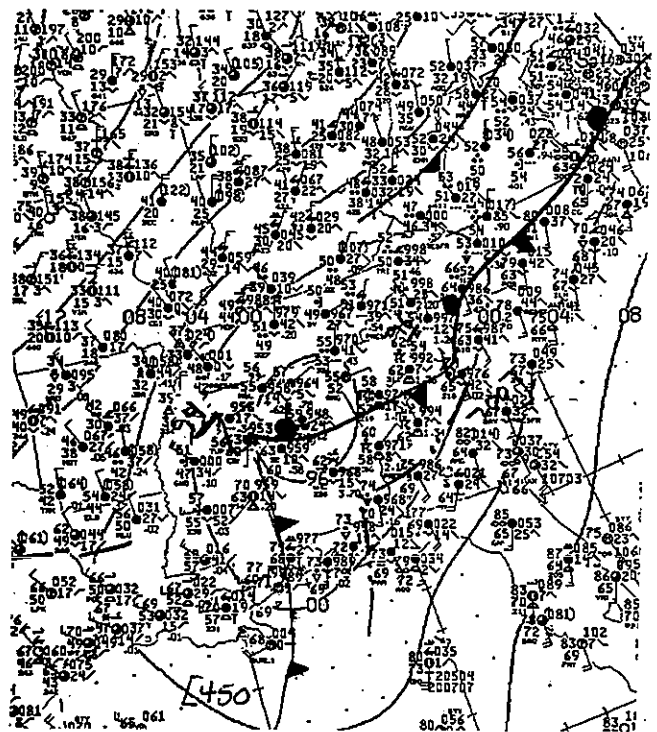
500 MB 6AM CST March 29, 1991



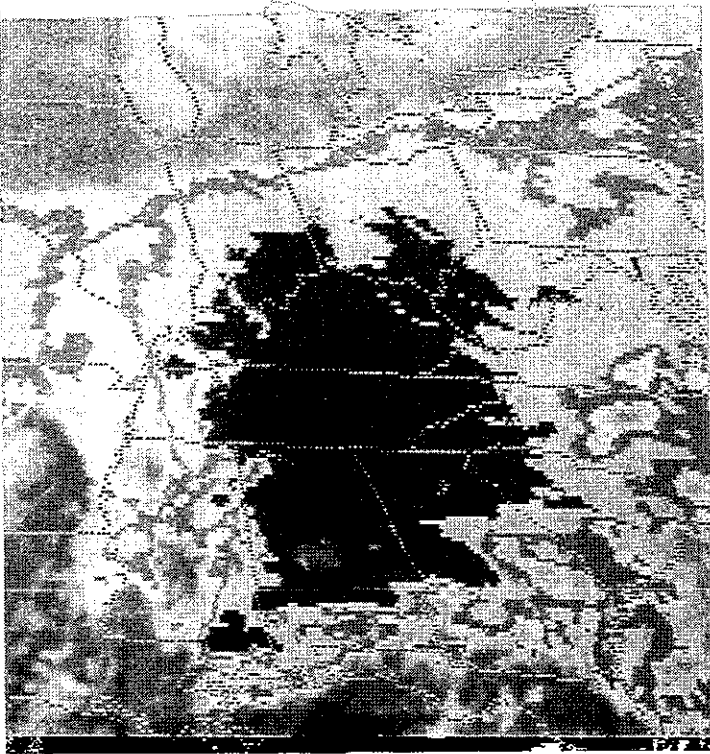
500 MB 6PM CST March 29, 1991



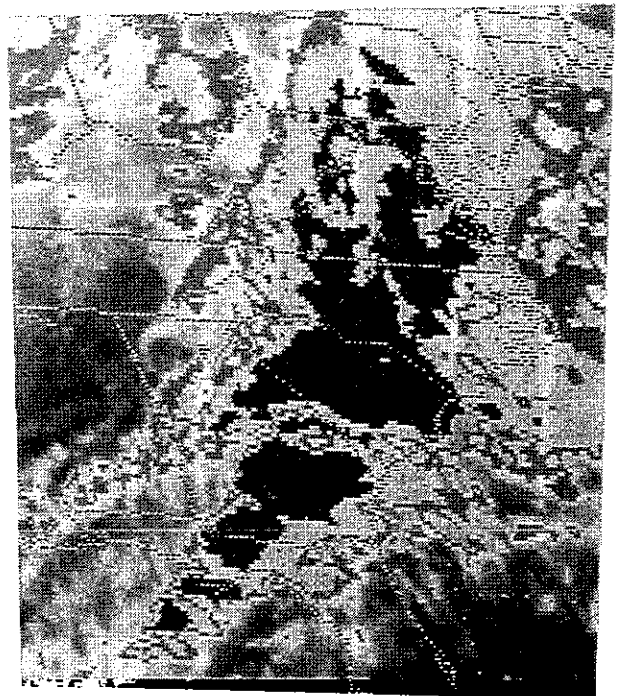
Surface 6AM CST March 29, 1991



Surface 12 Noon CST March 29, 1991



GOES 7AM CST March 29, 1991



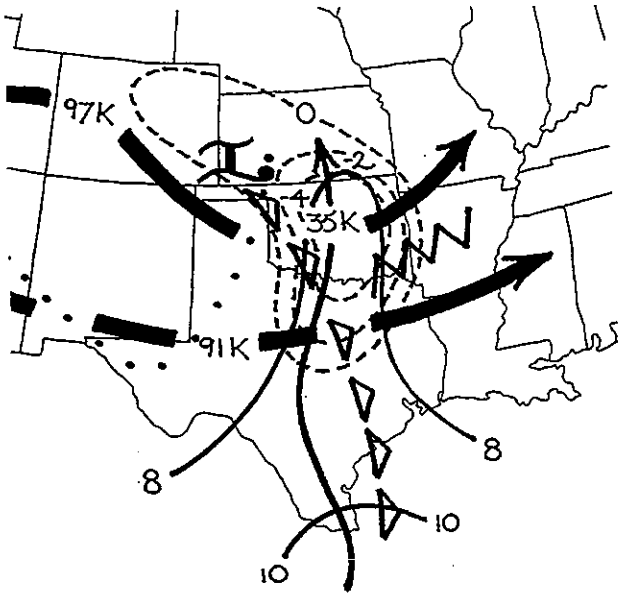
GOES 4PM CST March 29, 1991

\*\*\* 66 SEVERE REPORTS \*\*\*

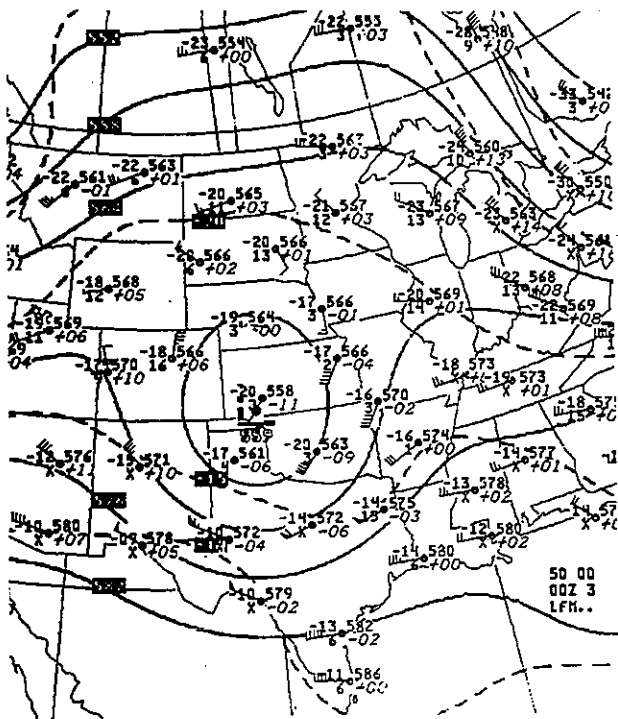
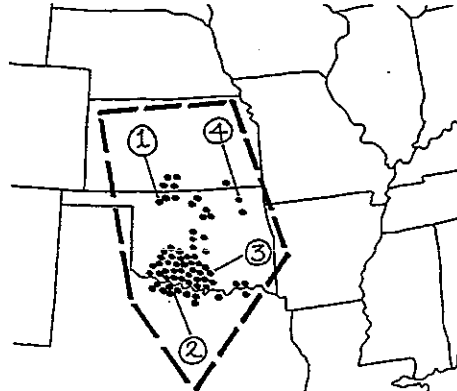
\*\*\* 8 TORNADOES \*\*\*

\*\*\* 1630-0100 CST \*\*\*

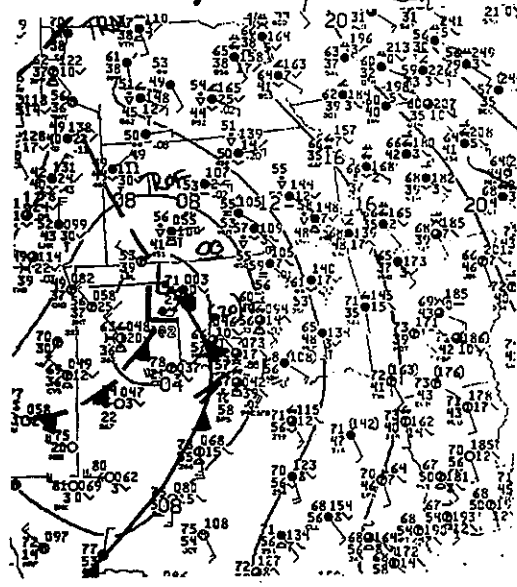
NO	TIME	EVENT	ST	LOCATION	
1	1845	TORNADO (F-2)	OK	9 WNW CAMP HOUSTON	(56 ENE GAG)
2	1855	2.75 INCH HAIL	TX	BURKBURNETT	(9 NNW SPS)
3	1900	2.75 INCH HAIL	OK	ELMORE CITY	(30 NW ADM)
4	2210	85 MPH WIND GUST	OK	BARTLESVILLE	( BVO)



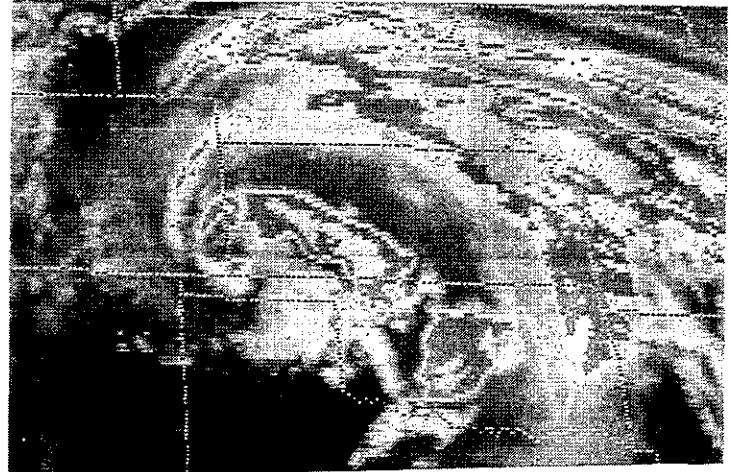
Composite 6PM CST April 2, 1991



500MB 6PM CST April 2, 1991

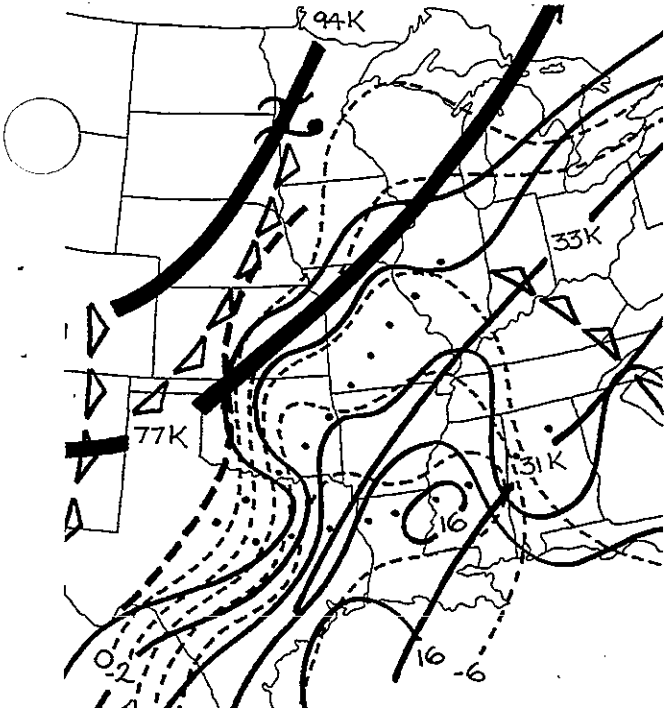


Surface 6PM CST April 2, 1991



72 GOESB5PM CST April 2, 1991

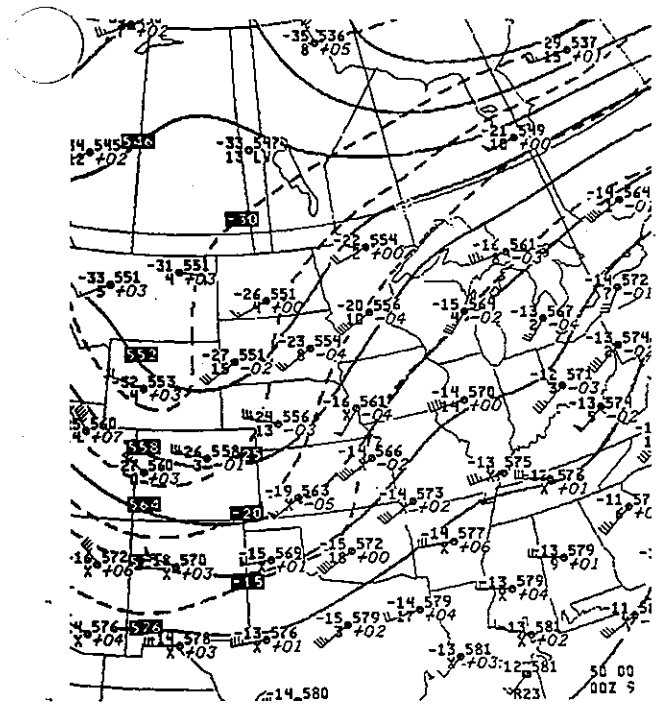
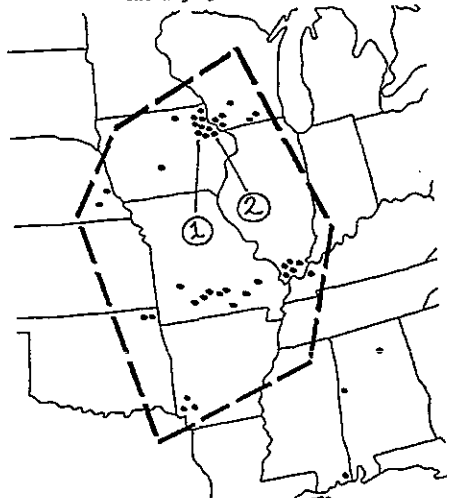




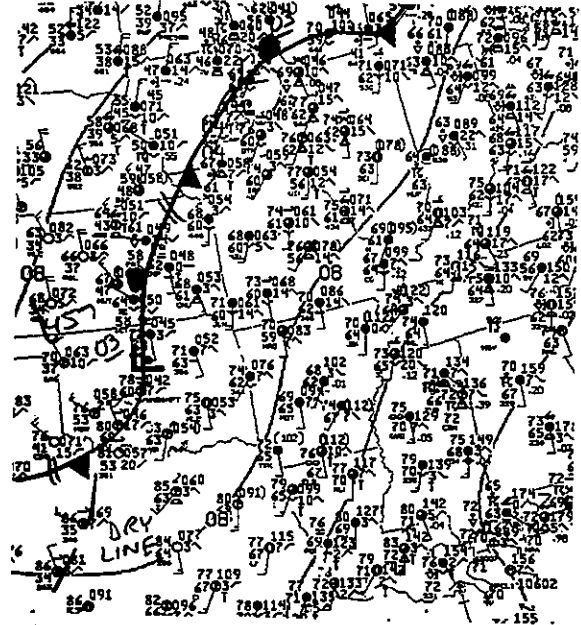
Composite 6PM CST April 8, 1991

\*\*\* 29 SEVERE REPORTS \*\*\*  
 \*\*\* 3 TORNADES \*\*\*  
 \*\*\* 1313-0530 CST \*\*\*

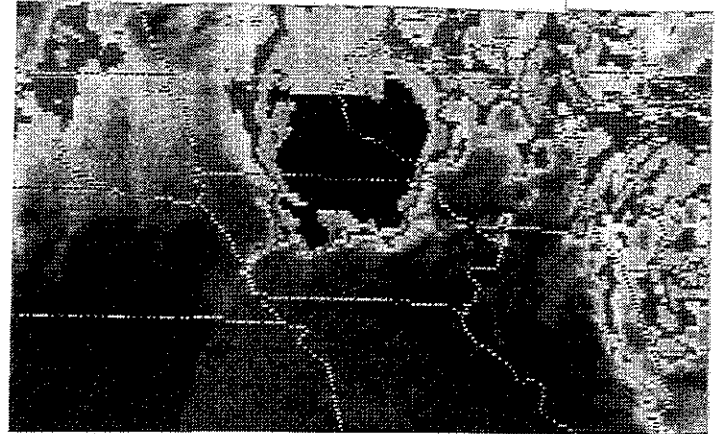
NO	TIME	EVENT	ST	LOCATION	
1	1315	80 MPH WIND GUST	IA	INDEPENDENCE	(29 E ALO)
2	1415	WIND DAMAGE one injury	IA	2 N MONTICELLO	(29 WSW DBQ)



500MB 6PM CST April 8, 1991



Surface 12Noon CST April 8, 1991



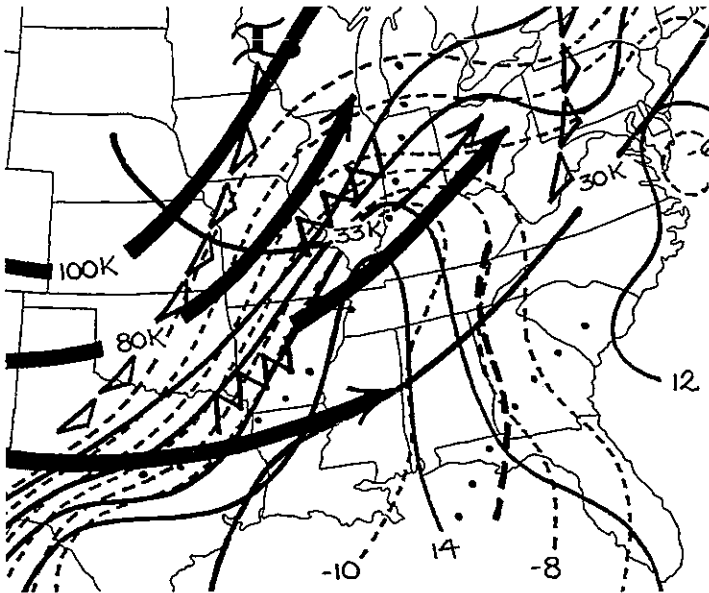
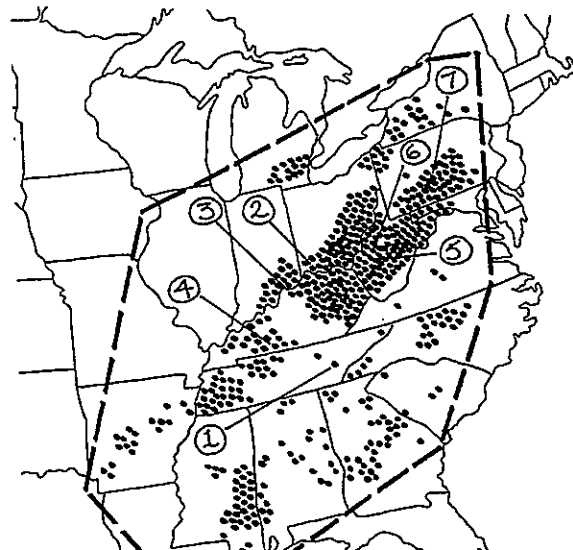
GOES IPM CST April 8, 1991

\*\*\* 503 SEVERE REPORTS \*\*\*

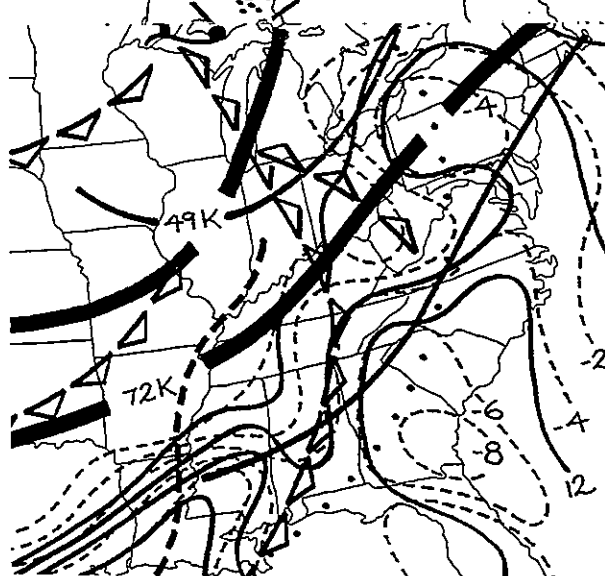
\*\*\* 38 TORNADOES \*\*\*

\*\*\* 0600-0200 CST \*\*\*

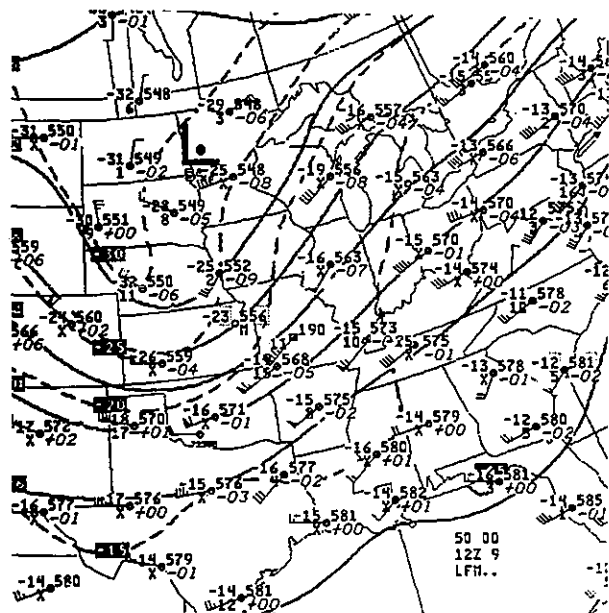
NO	TIME	EVENT	ST	LOCATION	
1	1205	WIND DAMAGE	TN	ROBERTSON COUNTY	(24 NSW TYS) three injuries (twenty-one injuries in the state) more than half a million dollars damage
2	1228	3.00 INCH HAIL	IN	SWITZERLAND CO	(38 SW LUK)
3	1230	85 MPH WIND GUST	IN	ERN HARRISON CO	(22 W SDF)
4	1245	TORNADO (F-2)	KY	CUTHRIE	(20 E HOP) more than 0.5 million dollars damage, eighteen mile path
5	1600	66 MPH WIND GUST	WV	KANAWHA COUNTY	(CRW) fifty-eight injuries, more than 0.5 million dollars damage (two deaths and eighty-two injuries in the state)
6	1620	WIND DAMAGE	WV	RIPLEY	(31 N CRW) ten injuries
7	1950	90 MPH WIND GUST	PA	GATESBURG	(37 NE AOO)



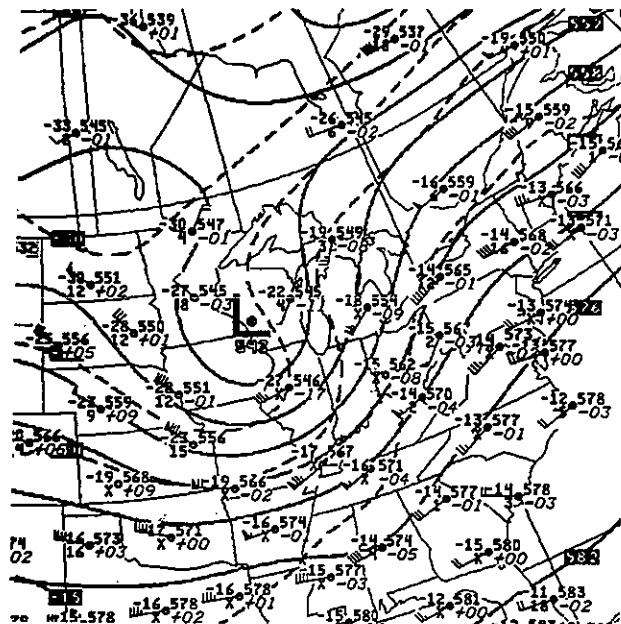
Composite 6AM CST April 9, 1991



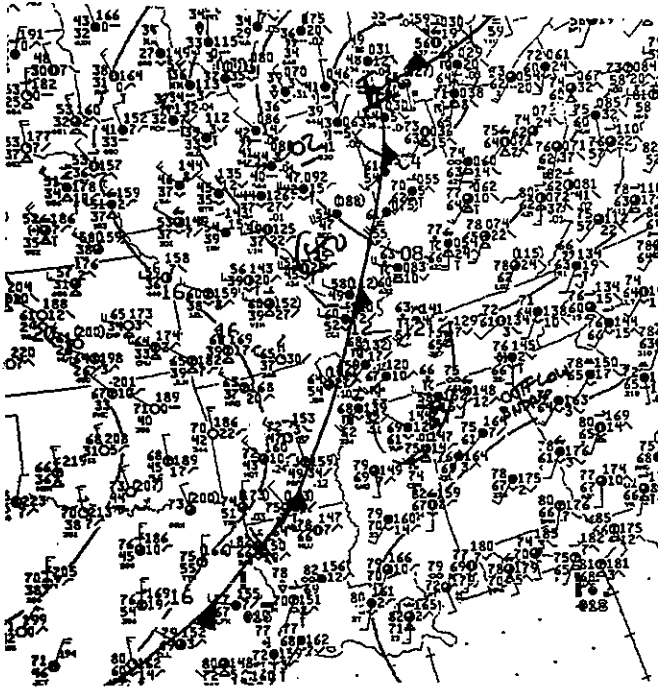
Composite 6PM CST April 9, 1991



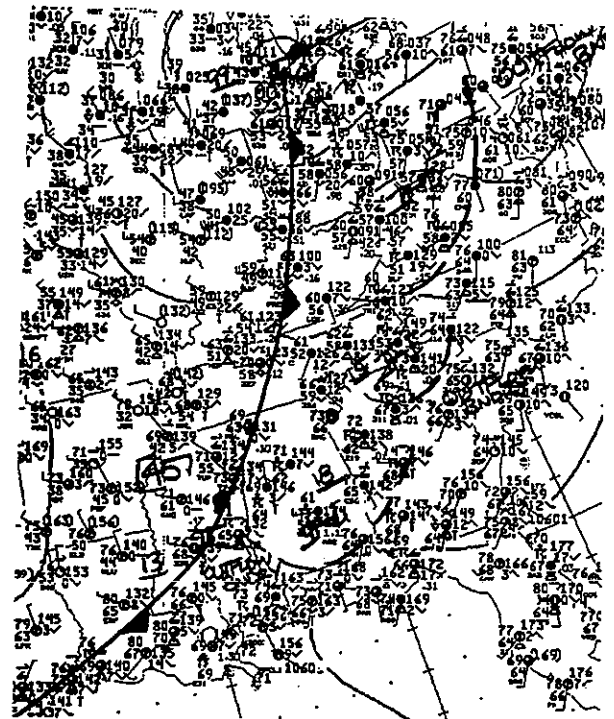
500MB 6AM CST April 9, 1991



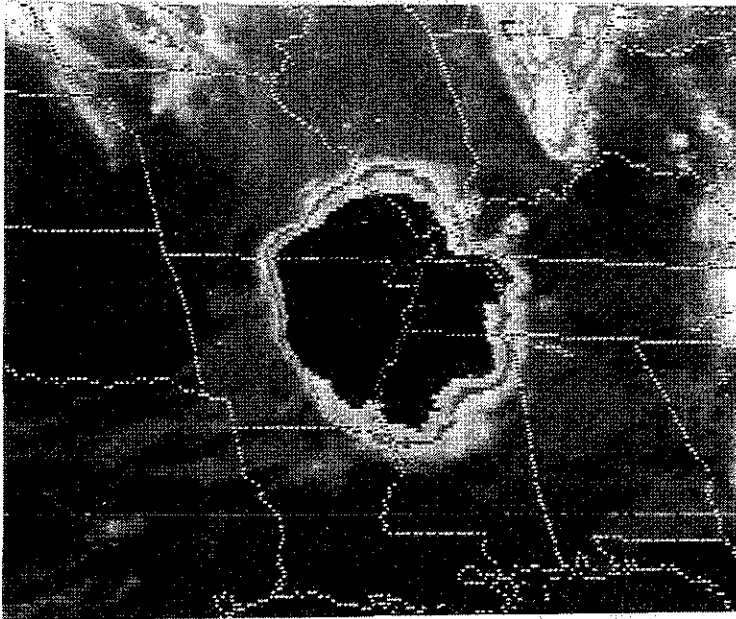
500MB 6PM CST April 9, 1991



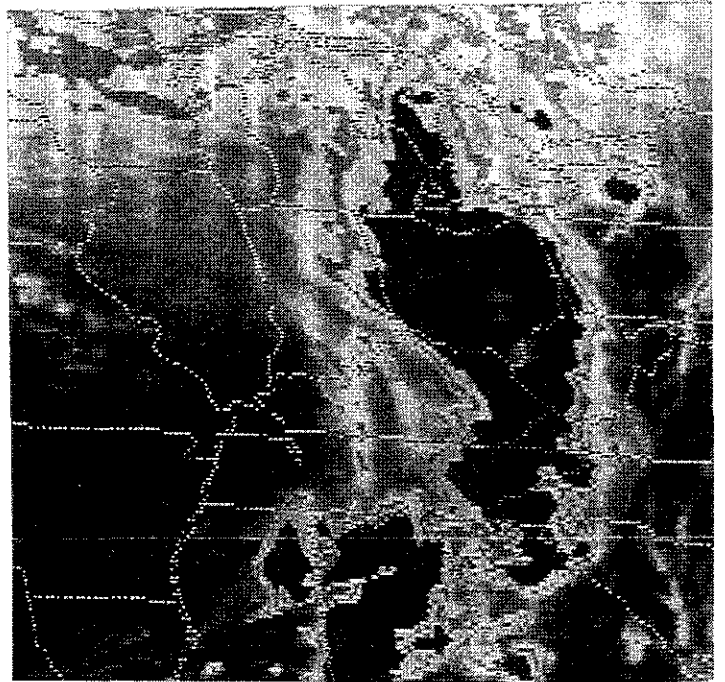
Surface 12 Noon CST April 9, 1991



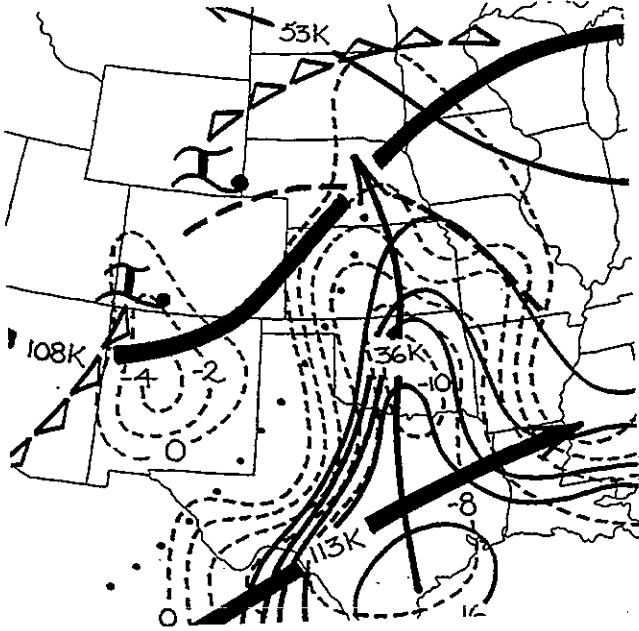
Surface 6PM CST April 9, 1991



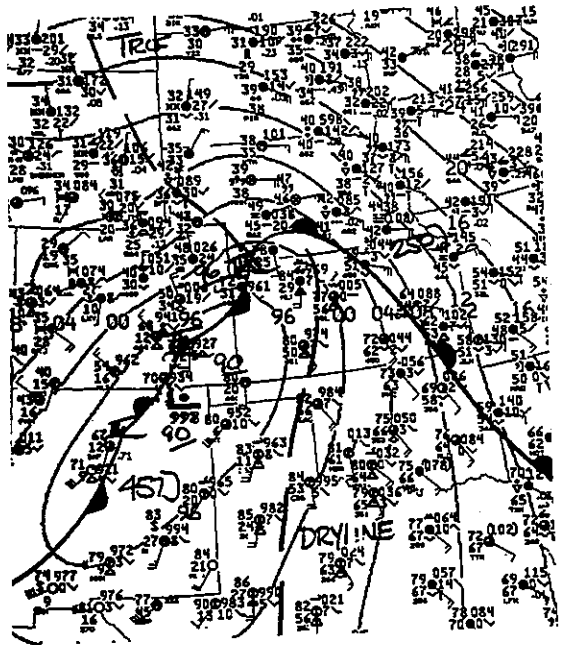
GOES 9AM CST April 9, 1991



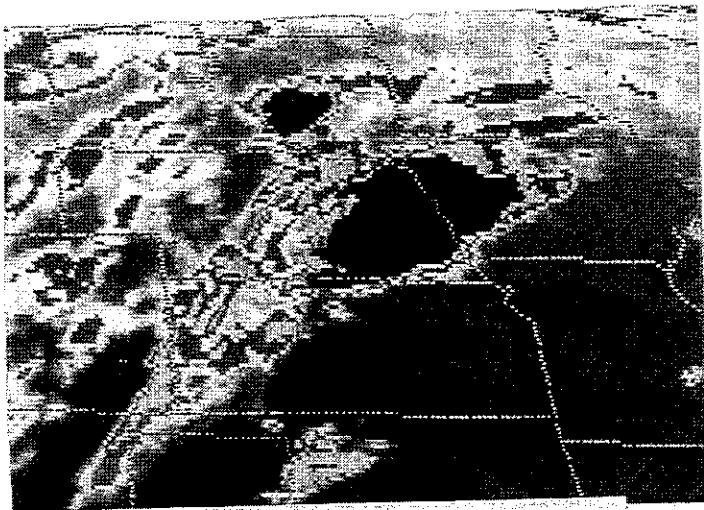
GOES 4PM CST April 9, 1991



Composite 6PM CST April 11, 1991



Surface 6PM CST April 11, 1991



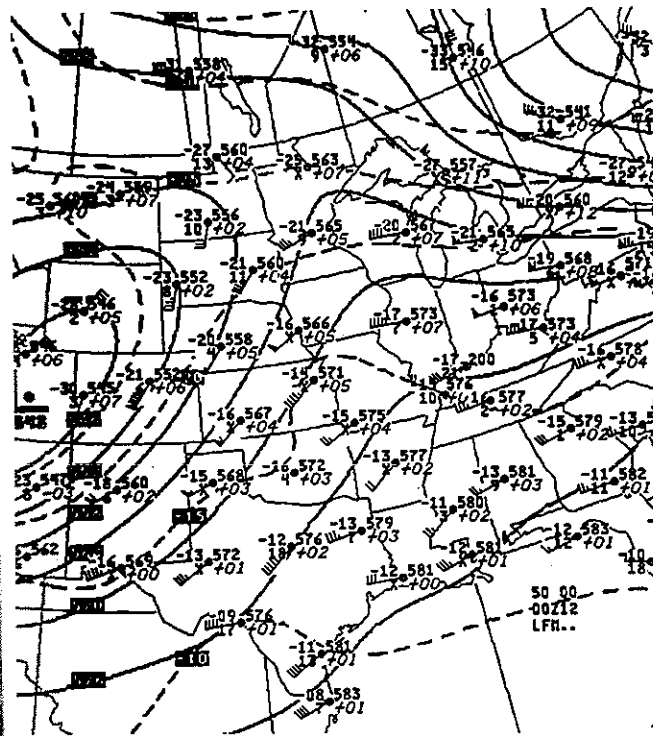
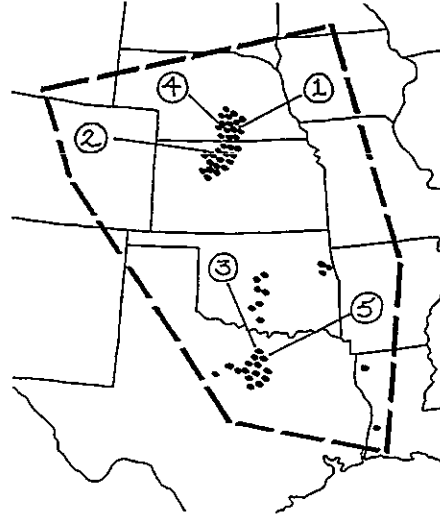
GOES 6PM CST April 11, 1991

\*\*\* 59 SEVERE REPORTS \*\*\*

\*\*\* 7 TORNADOES \*\*\*

\*\*\* 1603-0130 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1825	TORNADO (F-2)	NE	S N GUIDE ROCK	(38 S HSI)
2	1912	TORNADO (F-3) one injury, 1.5 million dollars damage	KS	6 W STOCKTON	(31 E HLC)
3	1934	90 MPH WIND GUST	TX	KRUM	(30 NNW DFW)
4	1835	2.75 INCH HAIL	NE	7 S HOLSTEIN	(20 SW HSI)
5	2120	4.00 INCH HAIL	TX	S E DALLAS	( 5 E DAL)



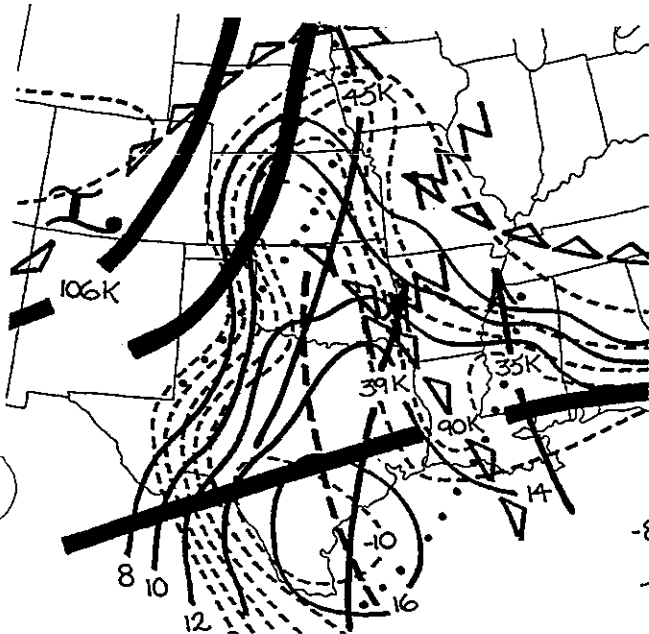
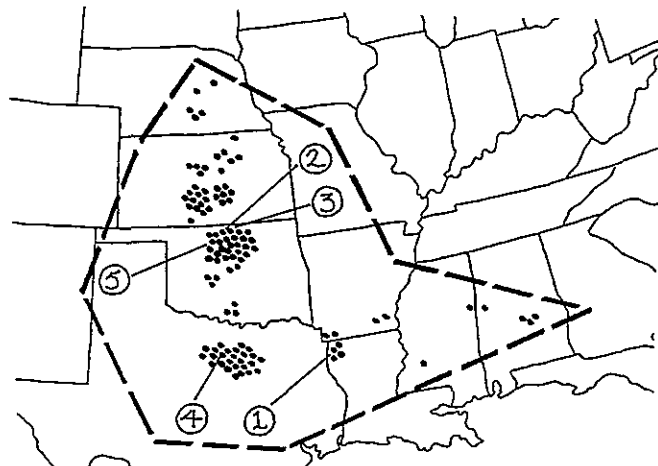
500MB 6PM CST April 11, 1991

\*\*\* 107 SEVERE REPORTS \*\*\*

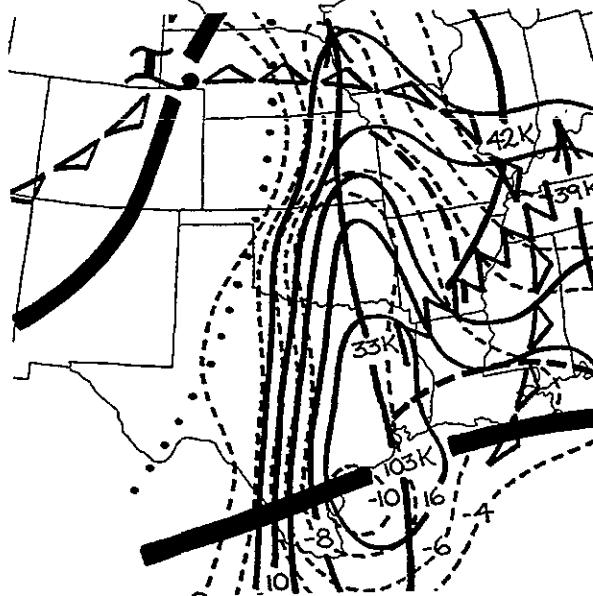
\*\*\* 24 TORNADOES \*\*\*

\*\*\* 0345-0110 CST \*\*\*

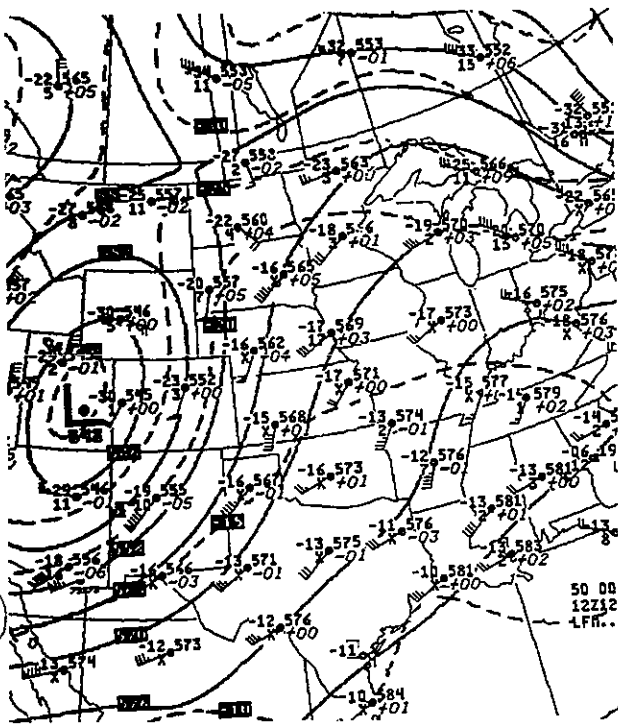
NO	TIME	EVENT	ST	LOCATION	
1	0615	81 MPH WIND GUST three injuries, more than half a million dollars damage	LA	SHREVEPORT	(SHV)
2	1537	TORNADO (F-3)	OK	4 SE HILLSDALE	(17 NNW END)
3	1621	TORNADO (F-3) two million dollars damage	OK	MEDFORD	(37 W PNC)
4	1722	4.00 INCH HAIL	TX	4 E GLEN ROSE	(30 E SEP)
5	1830	4.00 INCH HAIL	KS	12 SSE BELOYT	(30 WSW CNK)



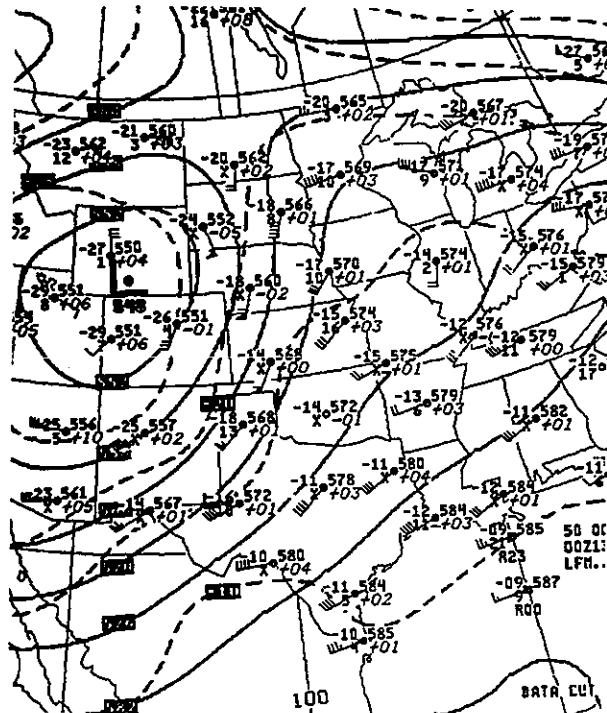
Composite 6AM CST April 12, 1991



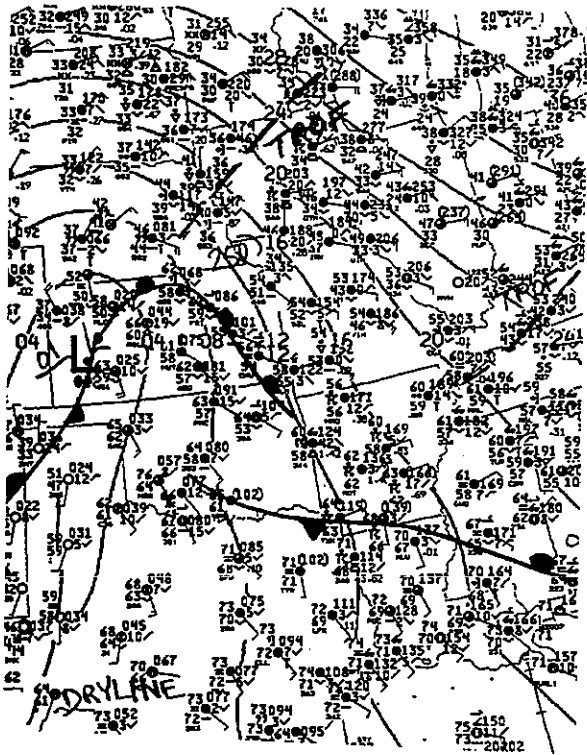
Composite 6PM CST April 12, 1991



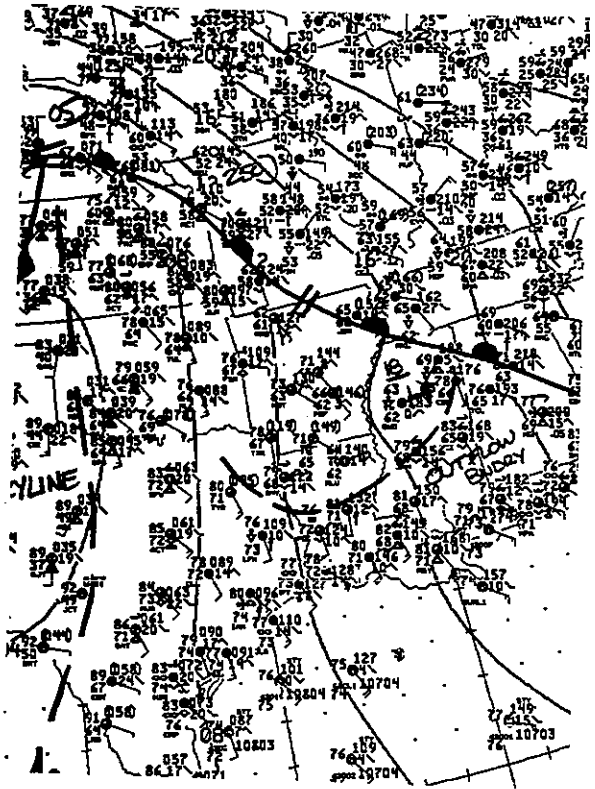
500MB 6AM CST April 12, 1991



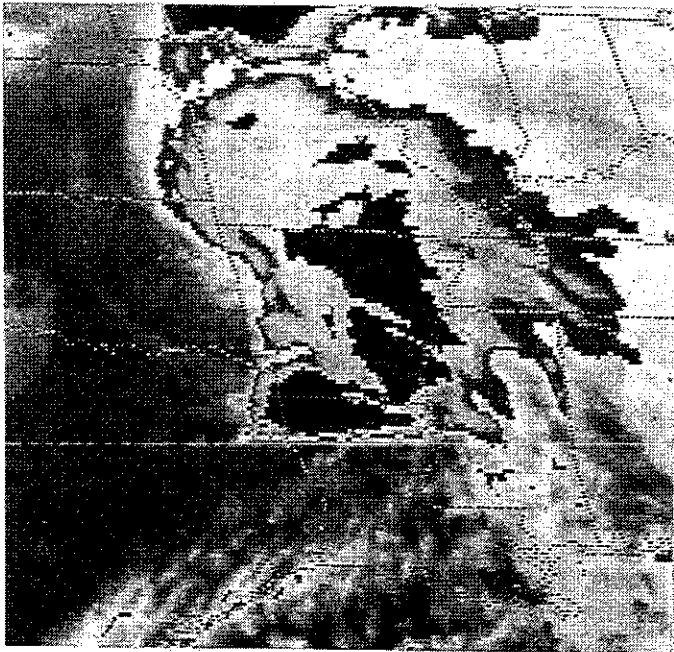
500MB 6PM CST April 12, 1991



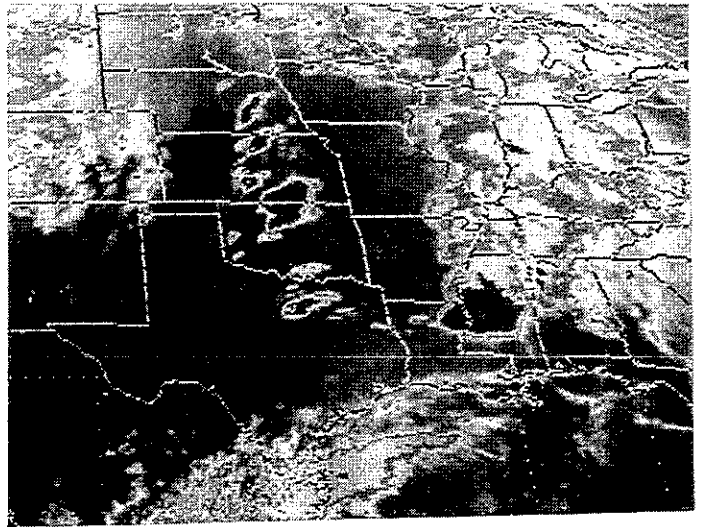
Surface 6AM CST April 12, 1991



Surface 3PM CST April 12, 1991



GOES 6AM CST April 12, 1991



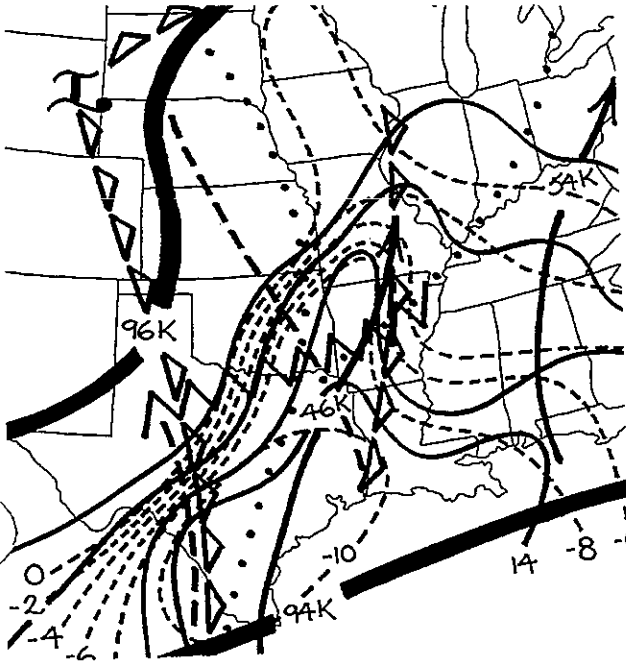
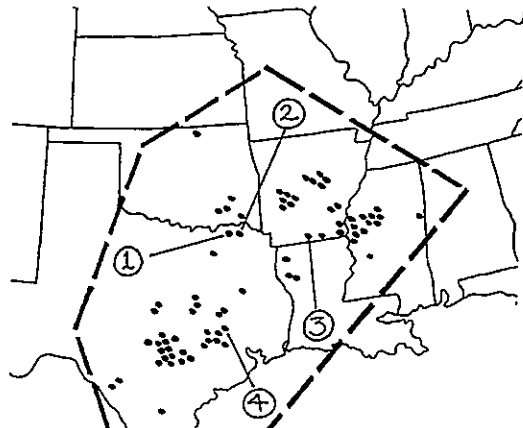
GOES 3PM CST April 12, 1991

\*\*\* 72 SEVERE REPORTS \*\*\*

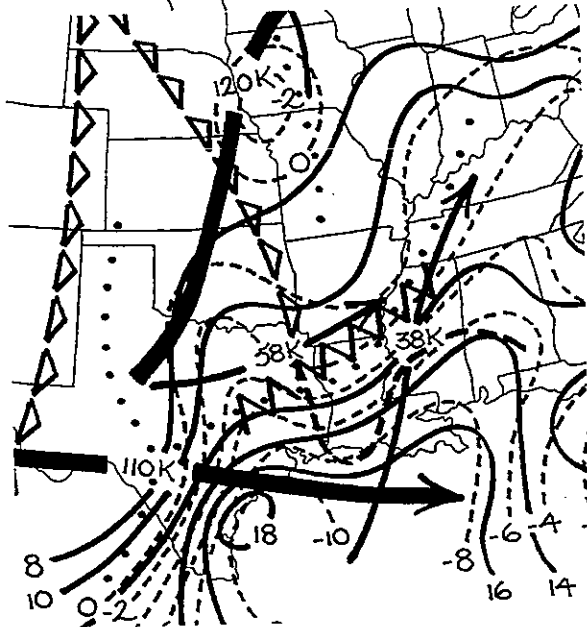
\*\*\* 7 TORNADOES \*\*\*

\*\*\* 0620-0533 CST \*\*\*

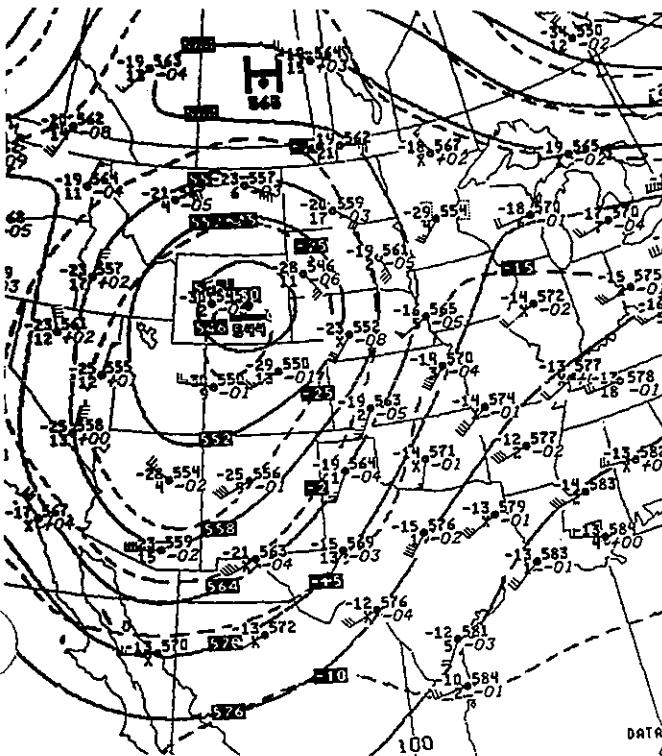
NO	TIME	EVENT	ST	LOCATION	
1	1210	TORNADO (F-2)	TX	3 SE DETROIT	(12 ENE PRX)
2	1225	TORNADO (F-2)	TX	2 N AVERY	(38 E PRX)
3	1615	TORNADO (F-2)	AR	EL DORADO	( ELD)
4	1705	2.75 INCH HAIL	TX	LEXINGTON	(39 WSW CLL)



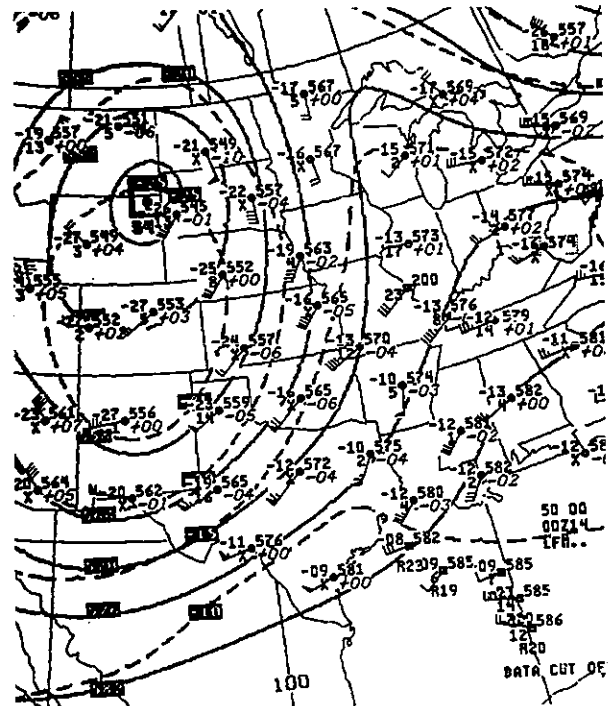
Composite 6AM CST April 13, 1991



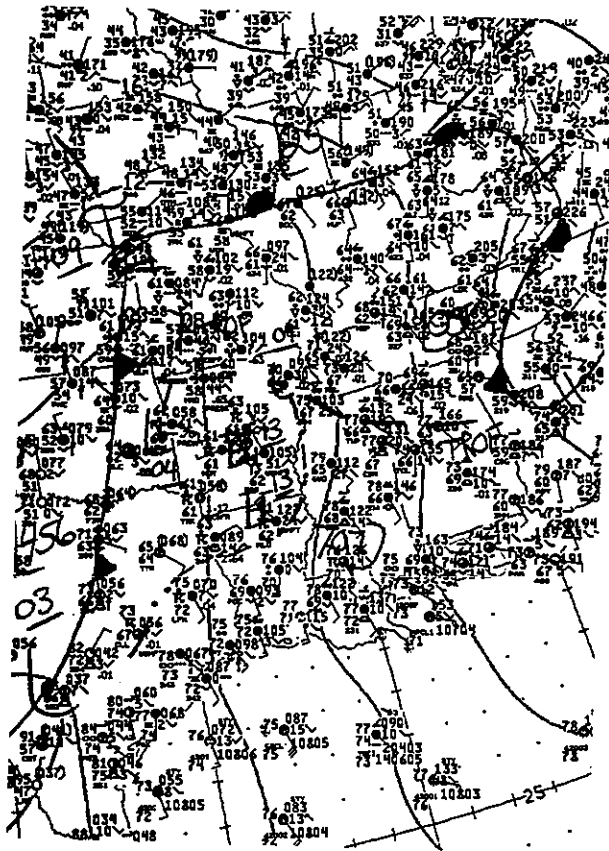
Composite 6PM CST April 13, 1991



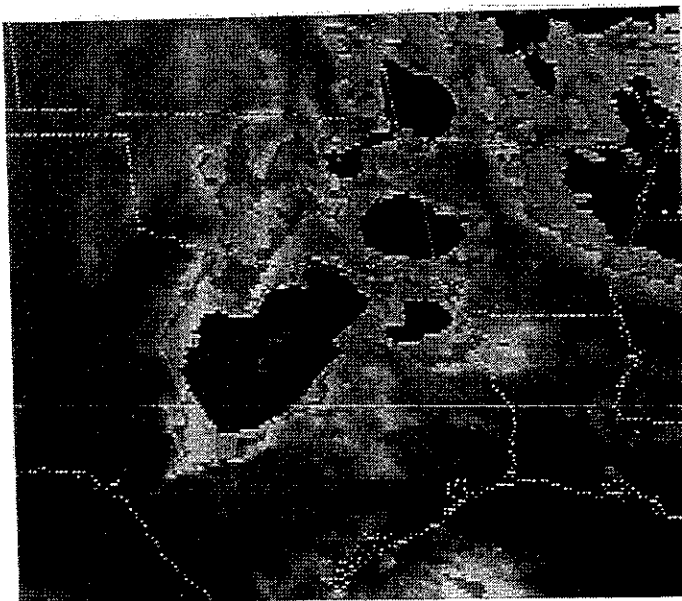
500MB 6AM CST April 13, 1991



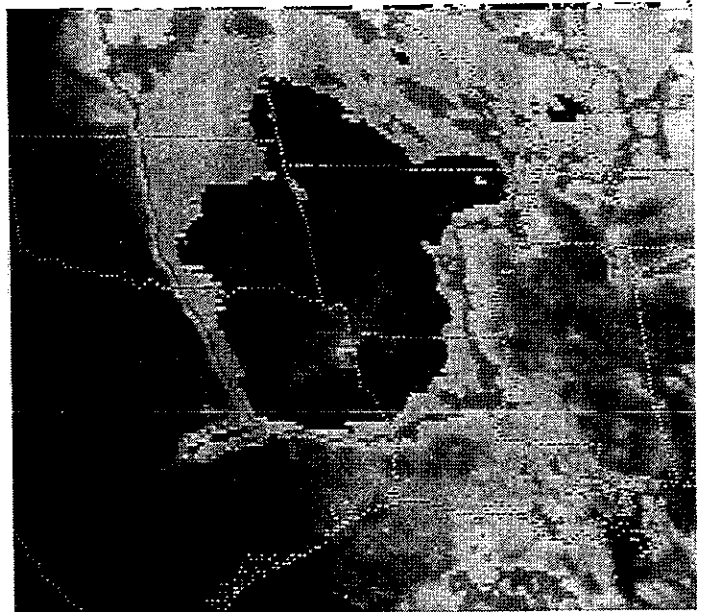
79 500MB 6PM CST April 13, 1991



Surface 12 Noon CST April 13, 1991



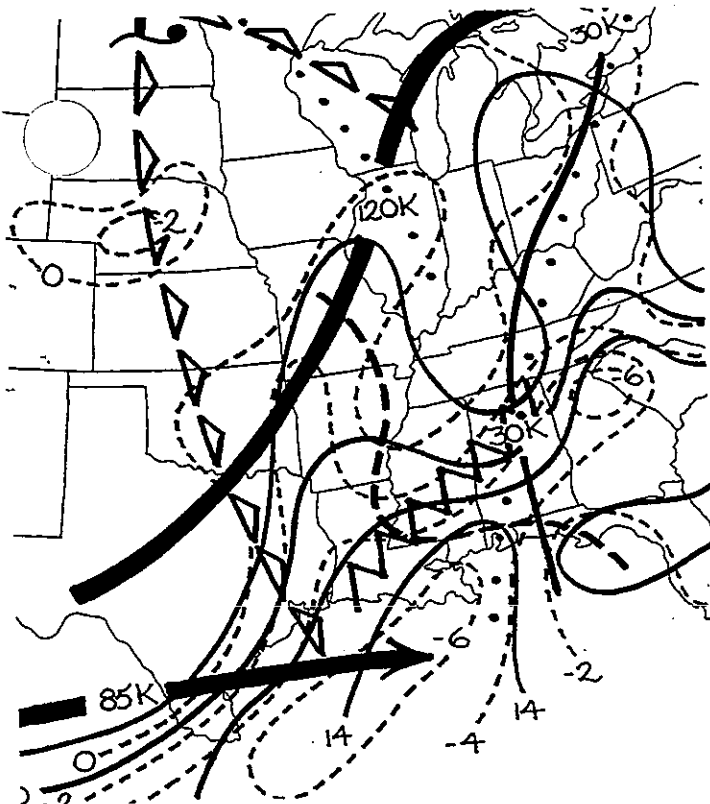
GOES 8AM CST April 13, 1991



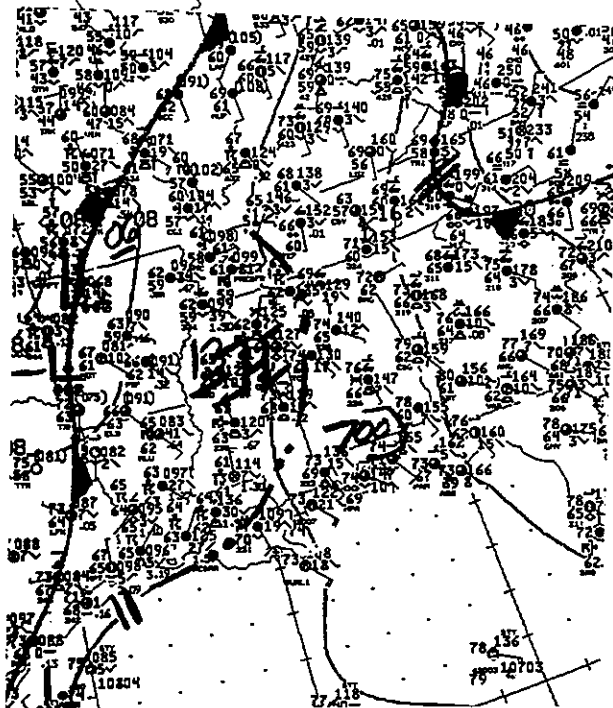
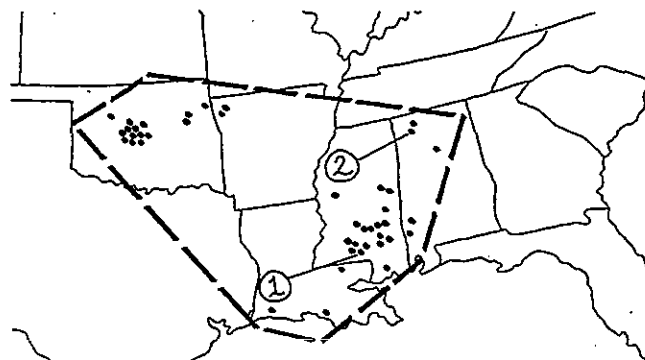
GOES 3PM CST April 13, 1991



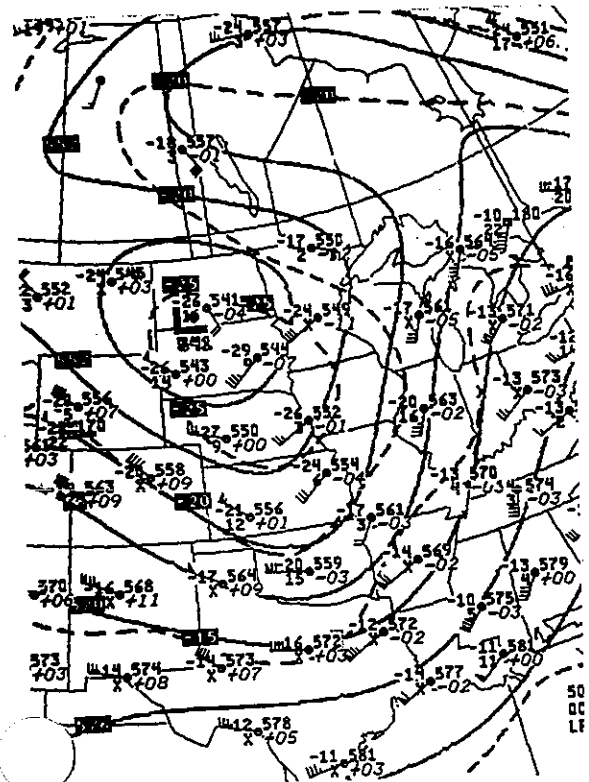
NO	TIME	EVENT	ST	LOCATION	
1	1824	75 MPH WIND GUST one death, four injuries	MS	KOKOMO	(27 E MCB)
2	1930	TORNADO (F-1) four injuries	AL	5 W MOULTON	(26 SE MSL)



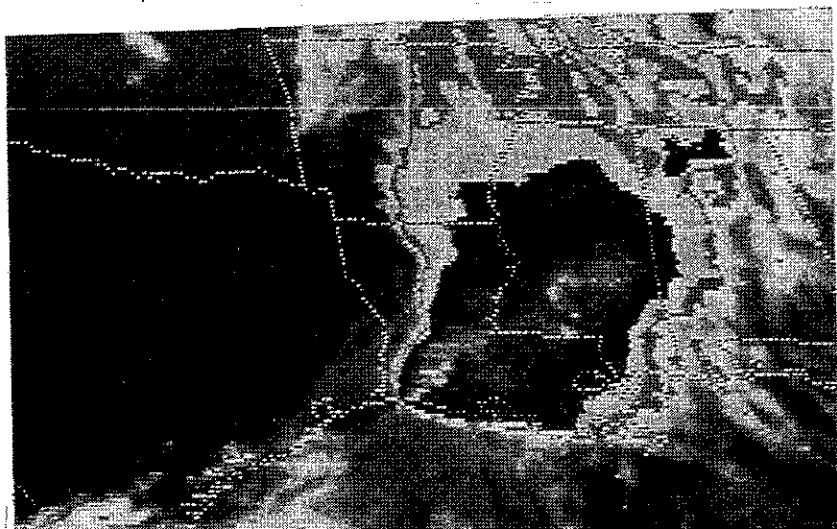
Composite 6PM CST April 14, 1991



Surface 6PM CST April 14, 1991



500MB 6PM CST April 14, 1991



81 GOES 6PM CST April 14, 1991

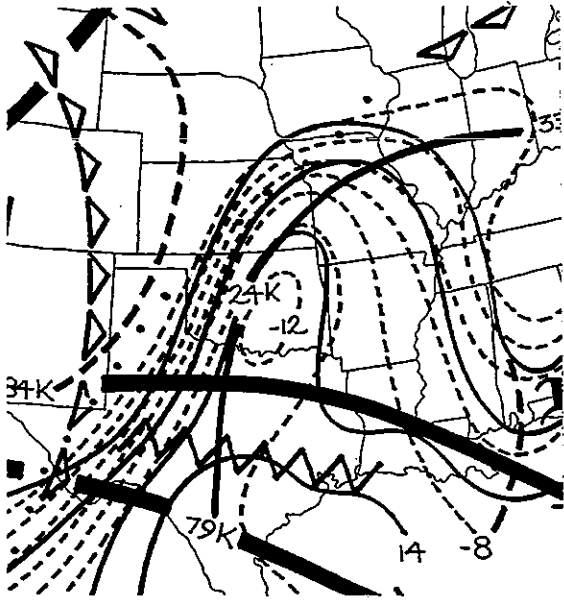
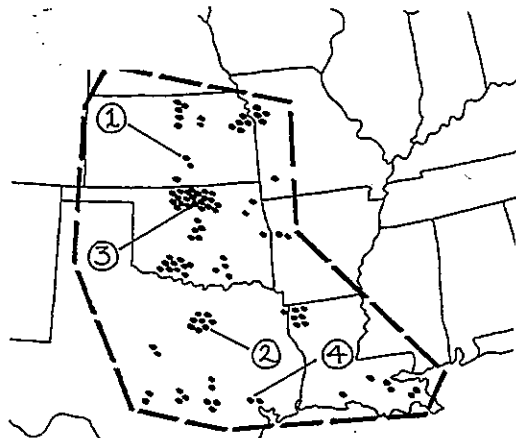
\*\*\* 101 SEVERE REPORTS \*\*\*

No. 61 April 17-18

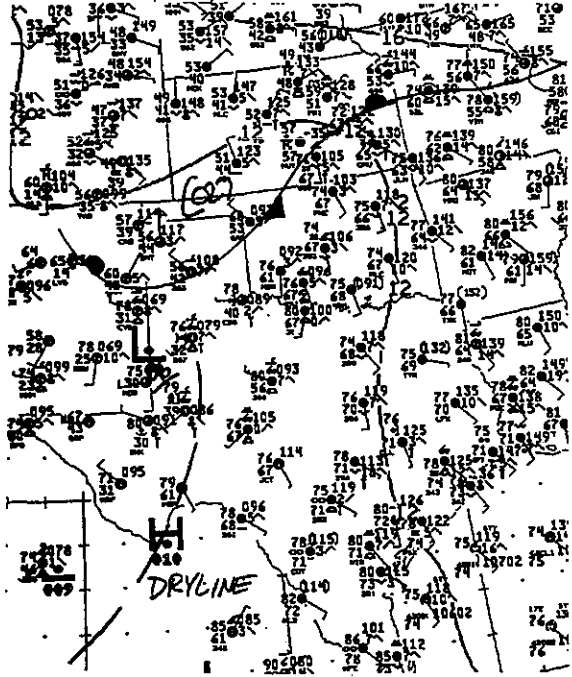
\*\*\* 4 TORNADOES \*\*\*

\*\*\* 1122-0445 CST \*\*\*

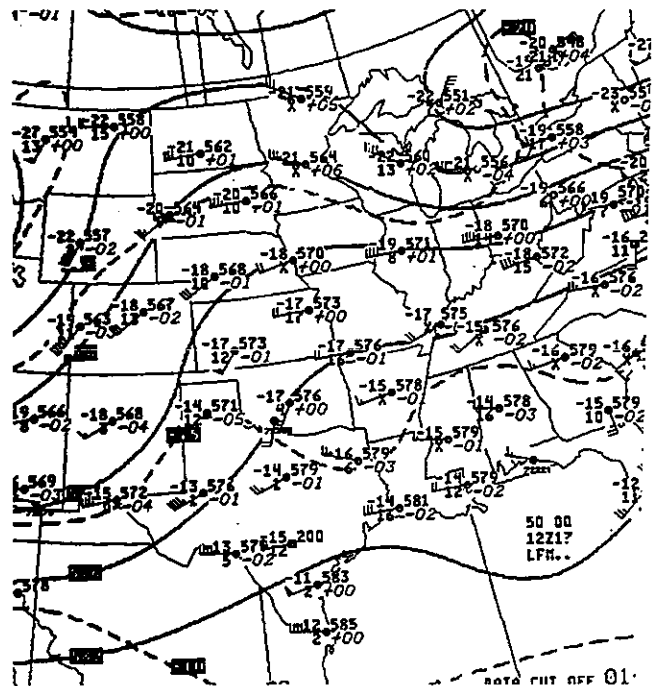
NO	TIME	EVENT	ST	LOCATION	
1	1205	2.00 INCH HAIL	KS	2 S NEWTON	(27 E HUT)
2	1550	75 MPH WIND GUST	TX	FORTH WORTH	( FTW)
3	1700	2.00 INCH HAIL	OK	MARYLAND	(11 SSW PNC)
4	2207	80 MPH WIND GUST	TX	HOUSTON	( HOU)



Composite 6AM CST April 17, 1991



Surface 12 Noon CST April 17, 1991



500MB 6AM CST April 17, 1991



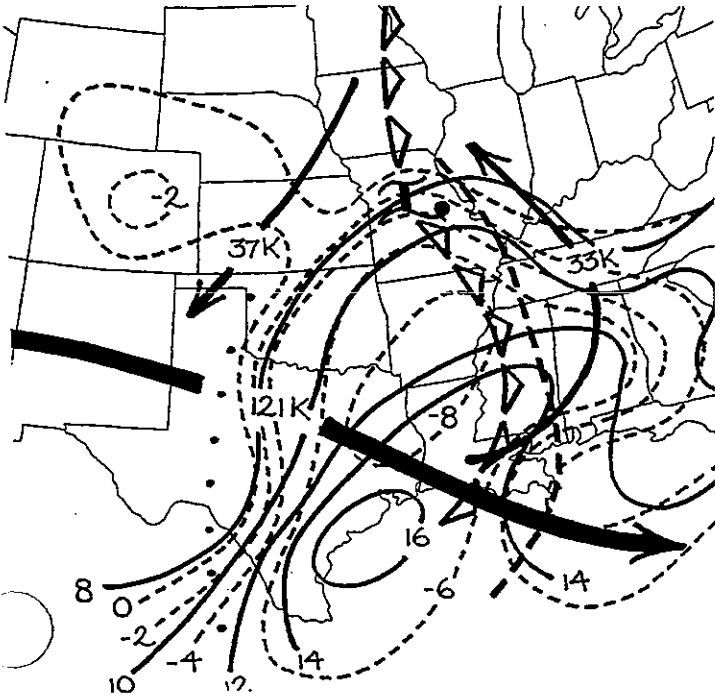
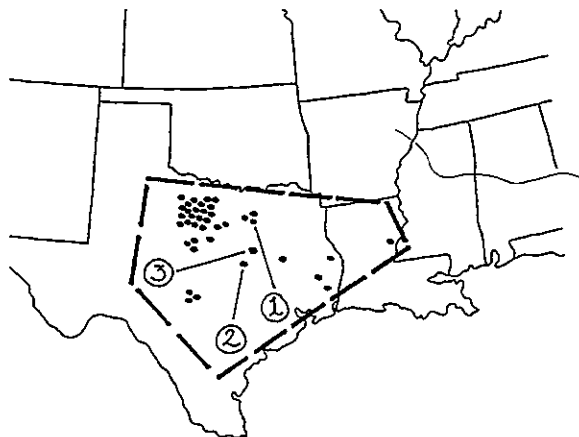
GOES 5PM CST April 17, 1991

\*\*\* 36 SEVERE REPORTS \*\*\*

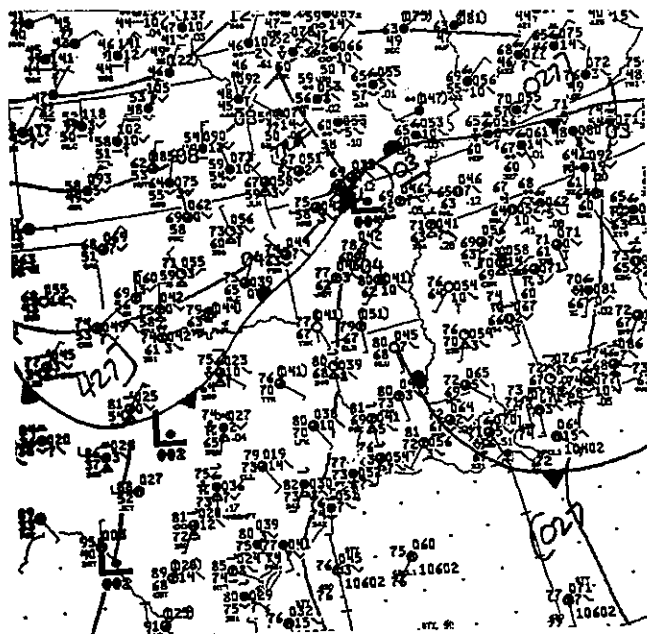
\*\*\* 1 TORNADO \*\*\*

\*\*\* 1530-0030 CST \*\*\*

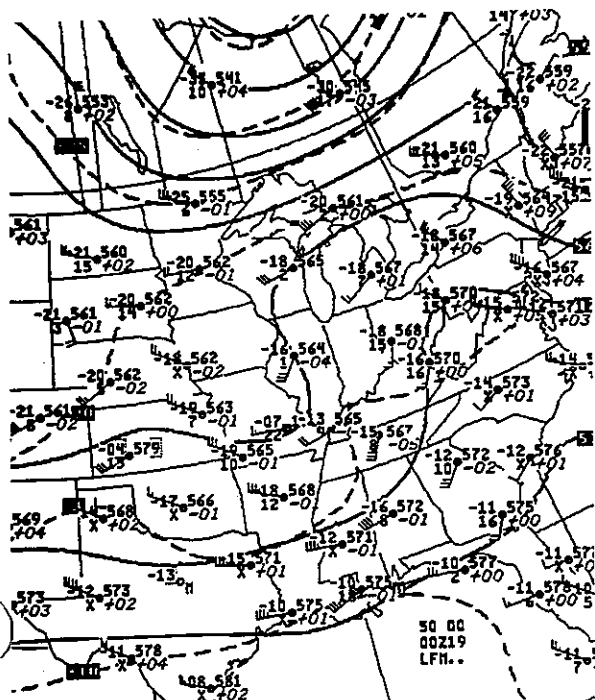
NO	TIME	EVENT	ST	LOCATION	
1	1705	2.50 INCH HAIL	TX	MAYPEARL	(38 SSW DAL)
2	1705	2.50 INCH HAIL	TX	5 W CRAWFORD	(19 WSW ACT)
3	1815	95 MPH WIND GUST	TX	BRUSHIE PRAIRIE	(37 NE ACT)



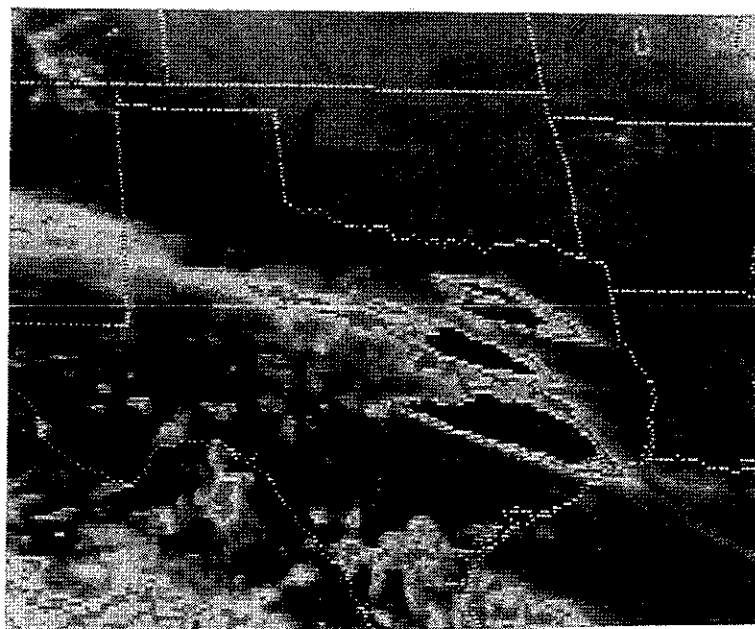
Composite 6PM CST April 18, 1991



Surface 6PM CST April 18, 1991



500MB 6PM CST April 18, 1991



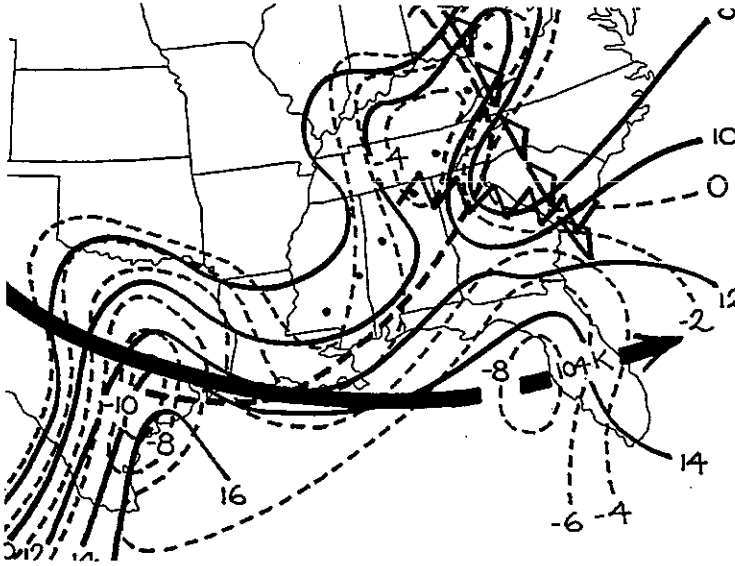
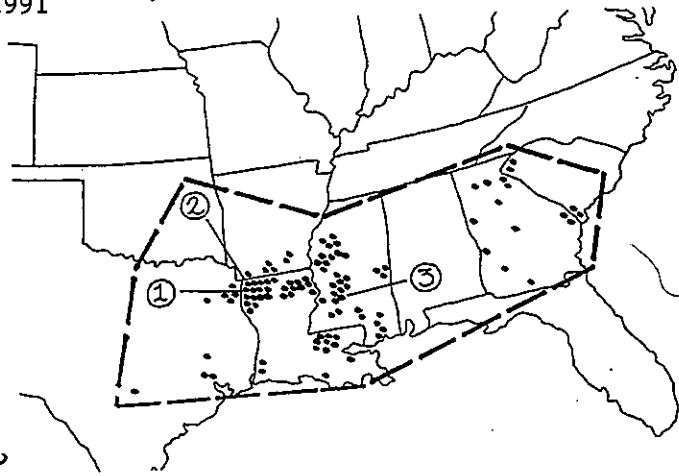
GOES 5PM CST April 18, 1991

\*\*\* 100 SEVERE REPORTS \*\*\*

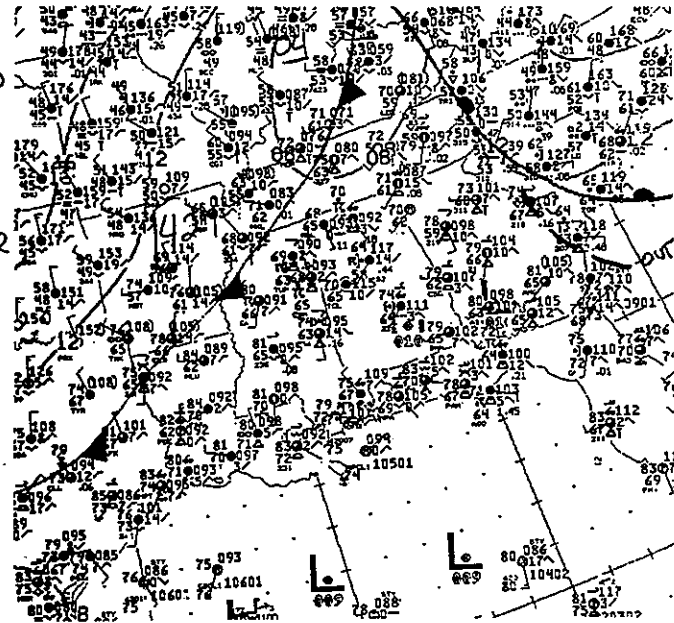
\*\*\* 5 TORNADOES \*\*\*

\*\*\* 0940-1830 CST \*\*\*

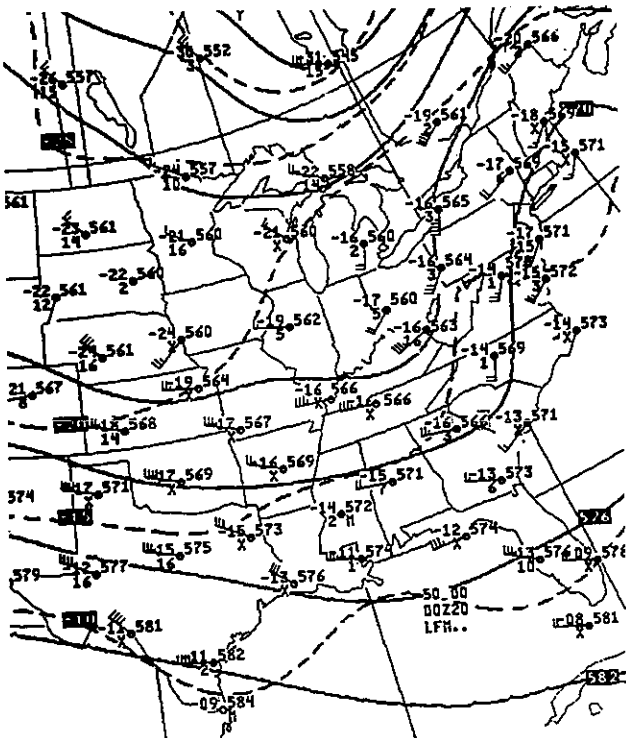
NO	TIME	EVENT	ST	LOCATION	
1	1220	80 MPH WIND GUST	LA	2 E BLANCHARD	( 9 N SHV)
2	1235	3.00 INCH HAIL	LA	DIXIE	(17 N SHV)
3	1500	3.00 INCH HAIL fifty-four million dollars damage	MS	JACKSON	( JAN)



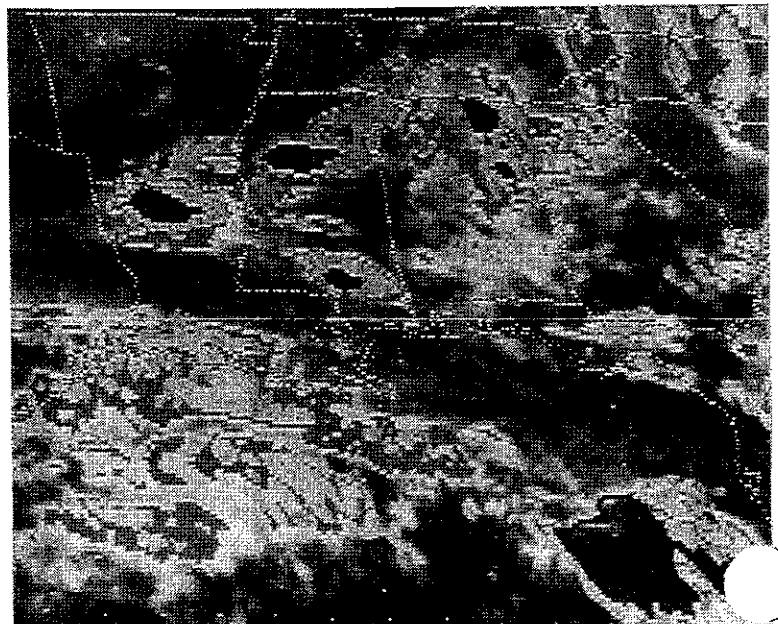
Composite 6PM CST April 19, 1991



Surface 12 Noon CST April 19, 1991



500MB 6PM CST April 19, 1991

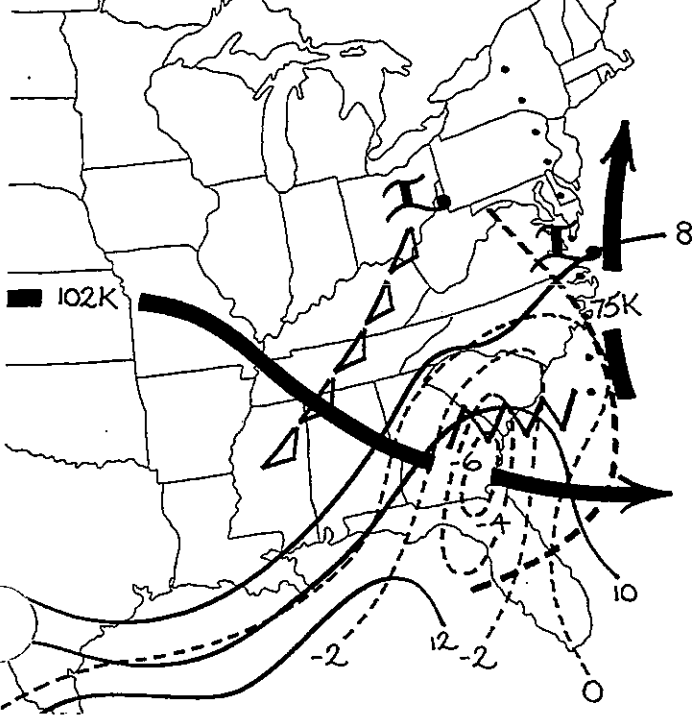
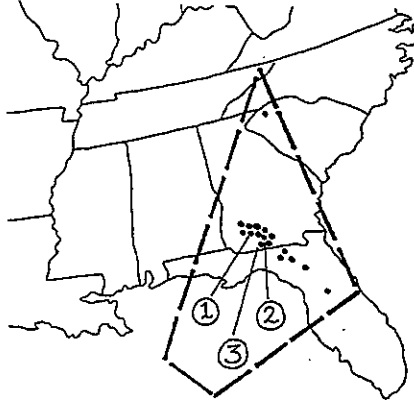


GOES 1PM CST April 19, 1991

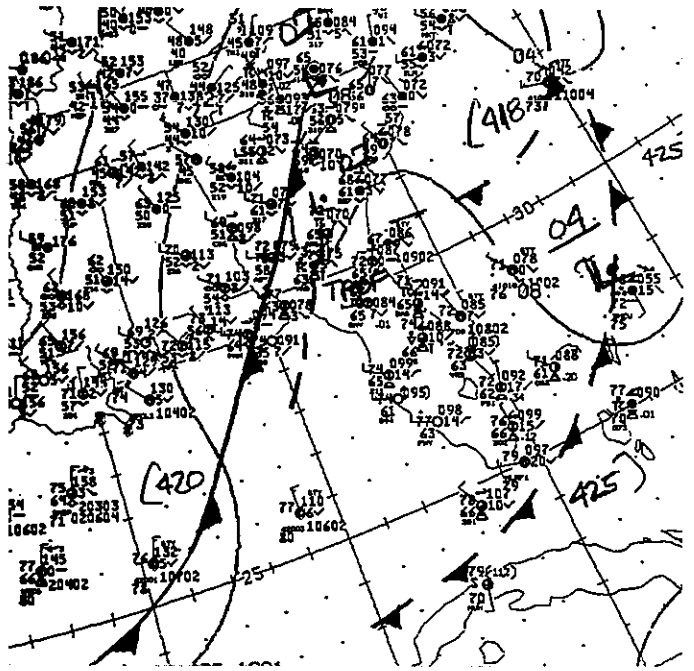
\*\*\* 17 SEVERE REPORTS \*\*\*

\*\*\* 1640-2035 CST \*\*\*

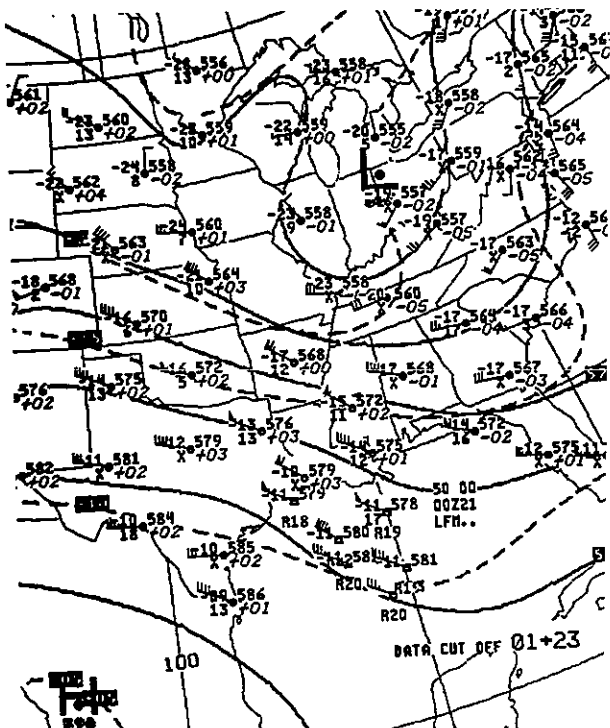
- | NO | TIME | EVENT   | ST | LOCATION |            |
|----|------|---|----|----------|------------|
| 1  | 1700 | 2.50 INCH HAIL  | GA | MOULTRIE | ( 7 N MGR) |
| 2  | 1720 | 2.50 INCH HAIL<br>thirty-six million dollars crop damage in Colquitt County | GA | BERLIN   | ( 9 E MGR) |
| 3  | 1800 | 1.75 INCH HAIL<br>five million dollars damage in Brooks County              | GA | BARNEY   | (19 W VLD) |



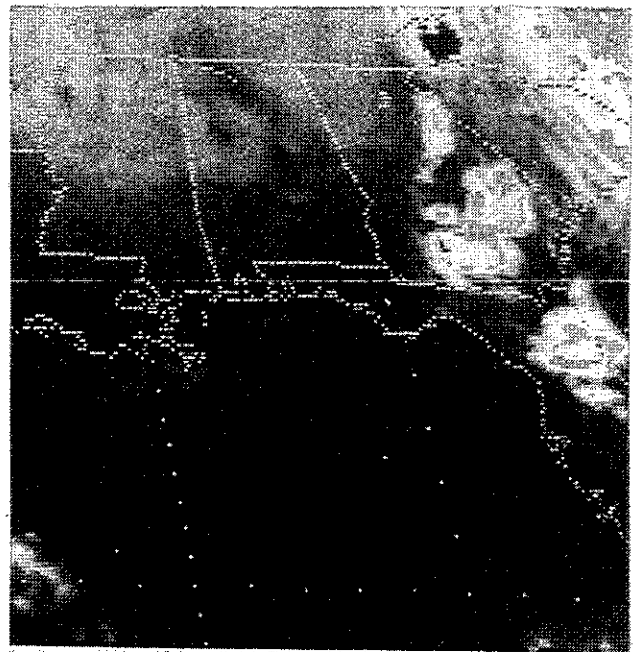
Composite 6PM CST April 20, 1991



Surface 6PM CST April 20, 1991



500MB 6PM CST April 20, 1991



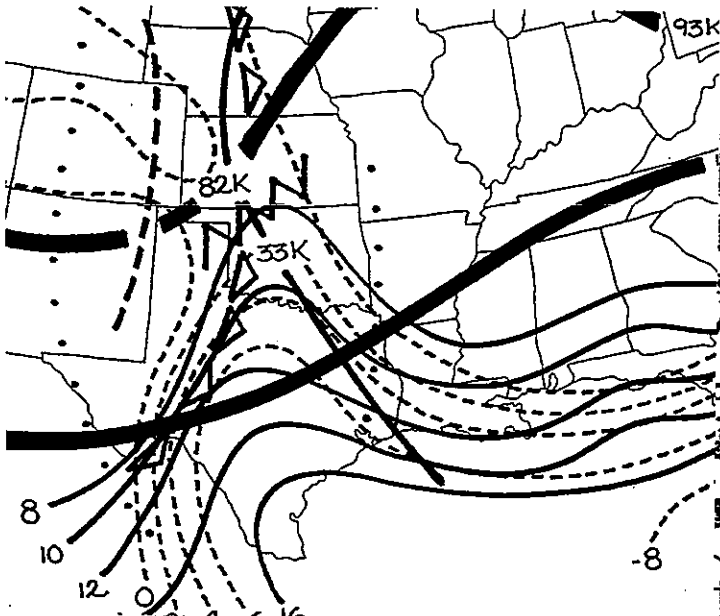
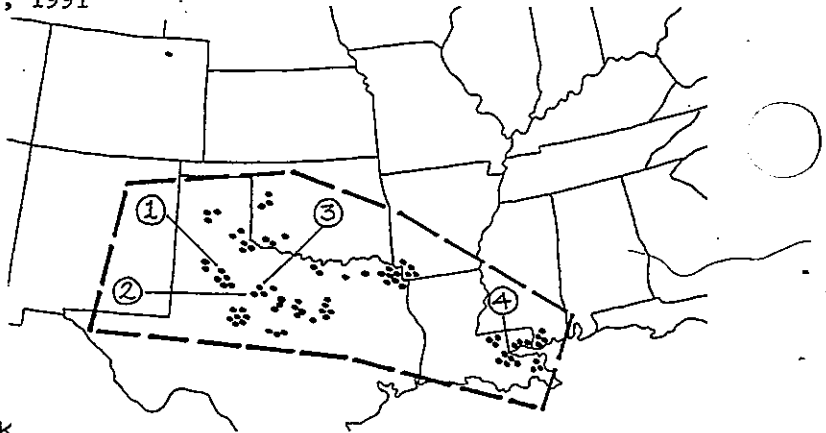
GOES 5PM CST April 20, 1991

\*\*\* 81 SEVERE REPORTS \*\*\*

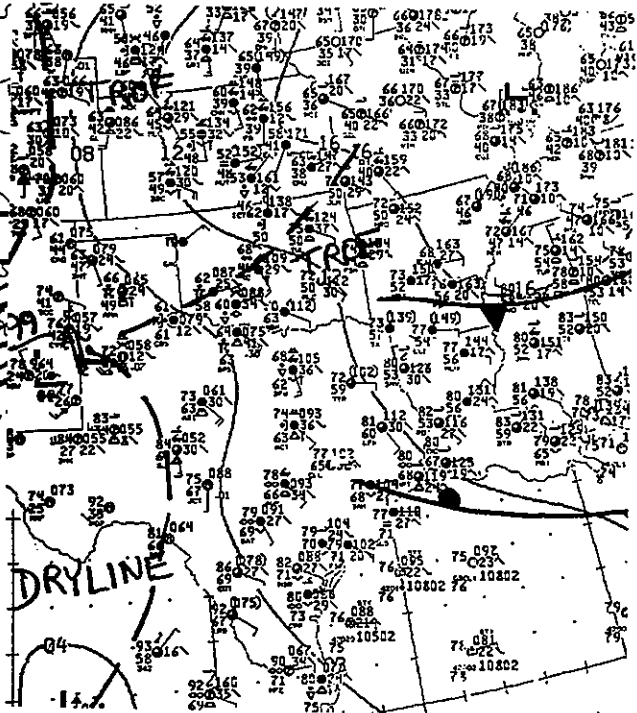
\*\*\* 4 TORNADOES \*\*\*

\*\*\* 1130-0550 CST \*\*\*

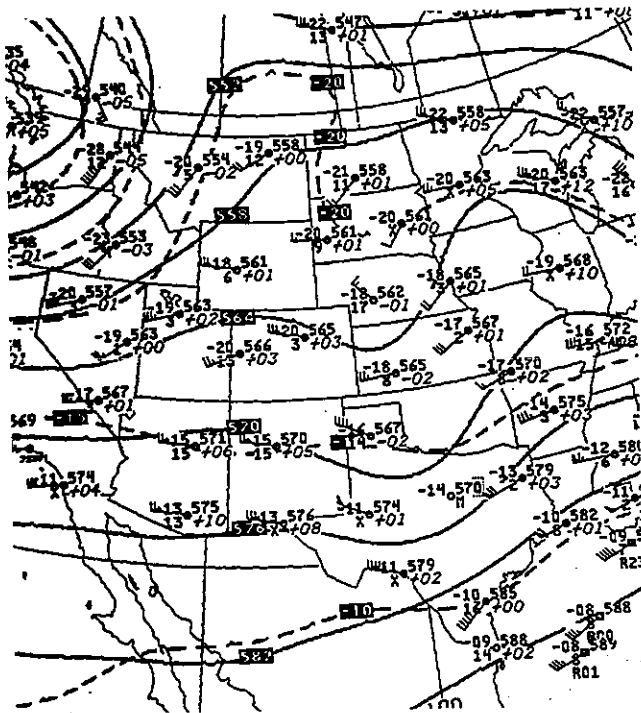
NO	TIME	EVENT	ST	LOCATION	
1	1420	TORNADO (F-2)	TX	8 N CLAIREMONT	(69 ESE LBB)
2	1522	2.75 INCH HAIL	TX	HAWLEY	(16 NNW ABI)
3	1550	TORNADO (F-3) one injury	TX	HASKELL	(52 N ABI)
4	0135	71 MPH WIND GUST	LA	LAKE PONCHARTRAIN	(21 NE MSY)



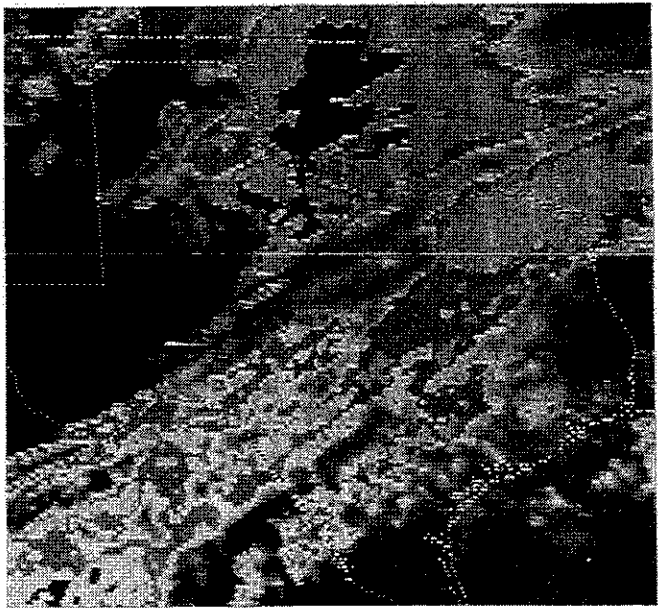
Composite 6PM CST April 24, 1991



Surface 3PM CST April 24, 1991



500MB 6PM CST April 24, 1991



86 GOES 3PM CST April 24, 1991

\*\*\* 26 SEVERE REPORTS \*\*\*

\*\*\* 7 TORNADOES \*\*\*

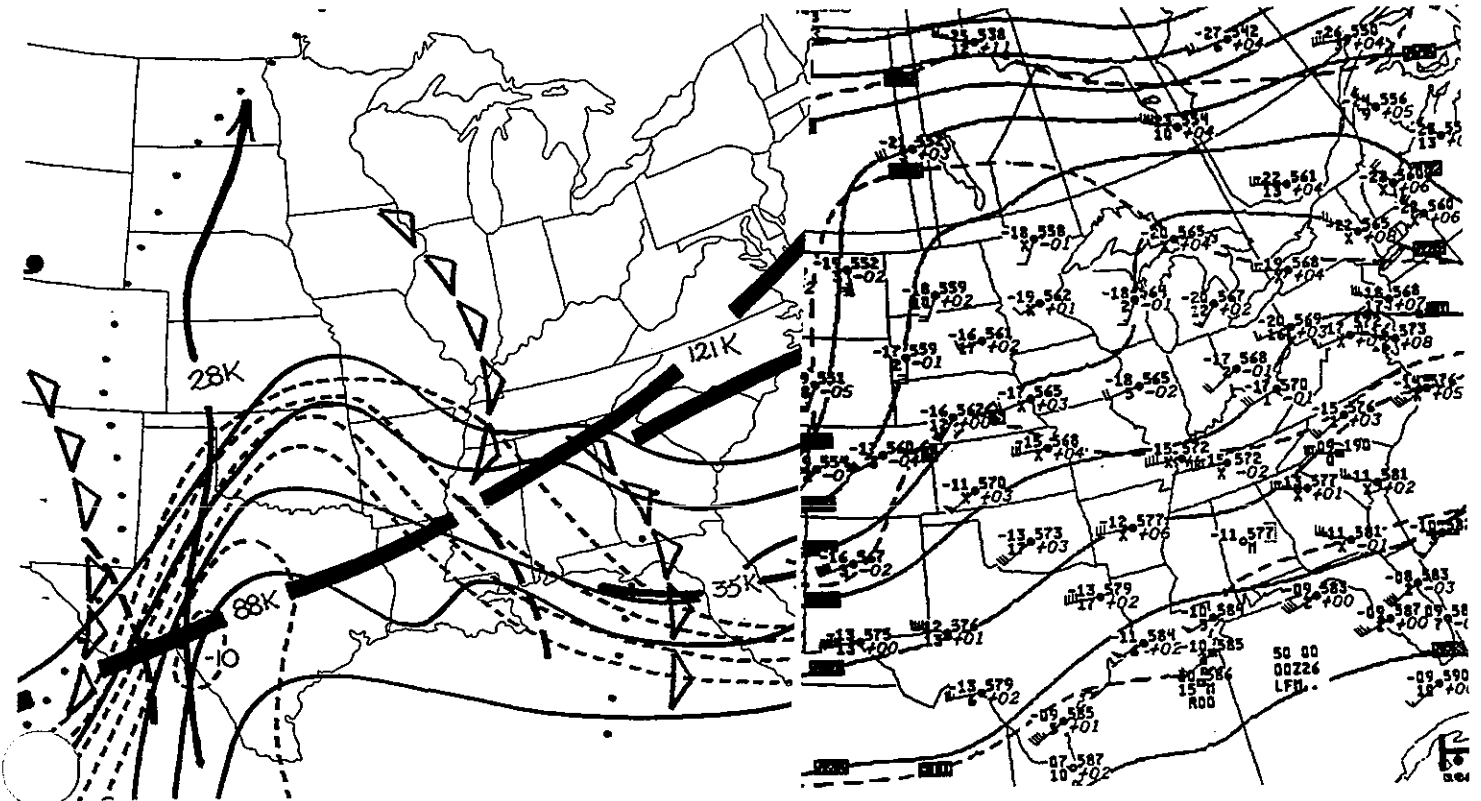
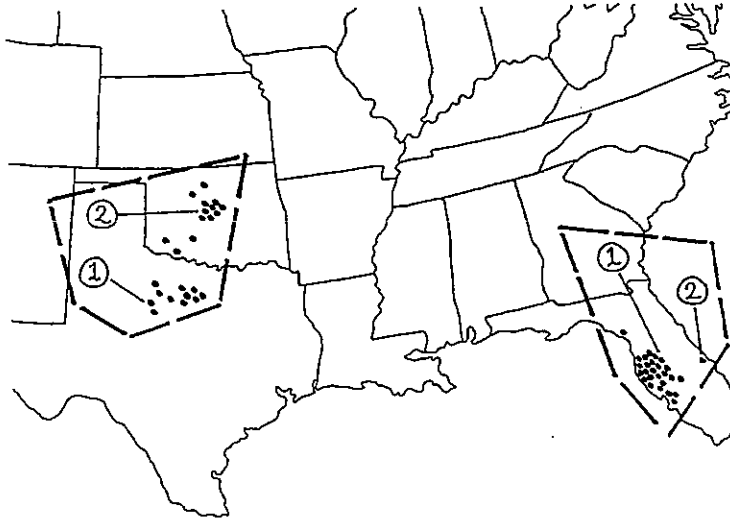
\*\*\* 1315-1615 CST \*\*\*

\*\*\* 24 SEVERE REPORTS \*\*\*

\*\*\* 1745-0542 CST \*\*\*

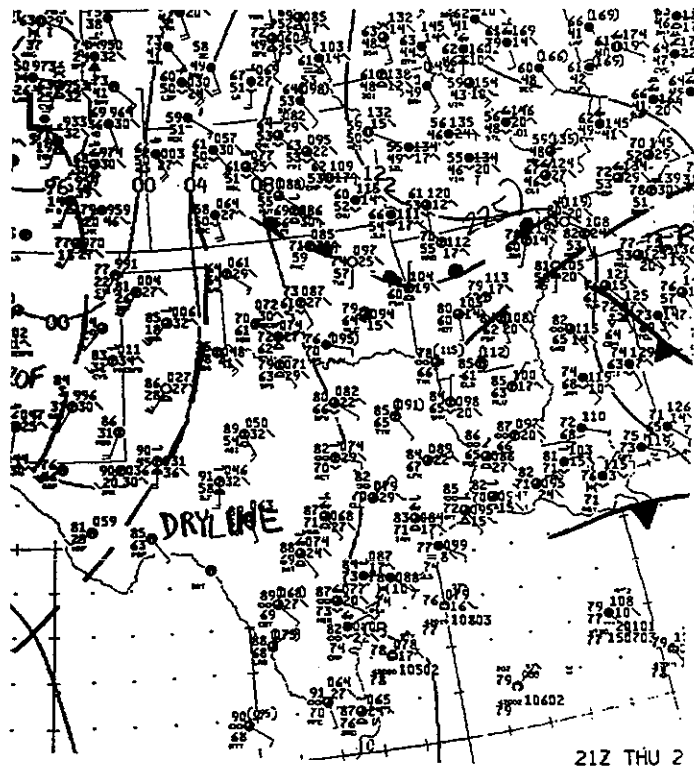
NO	TIME	EVENT	ST	LOCATION	
1	1515	WIND DAMAGE one injury	FL	LAKE WALES (23 NW AGR)	(23 SW ABI)
2	1615	WIND DAMAGE one injury	FL	4 SW SEBASTIAN (14 NW VRB)	(6 N OKC)

(more than five million dollars damage in west central Florida)

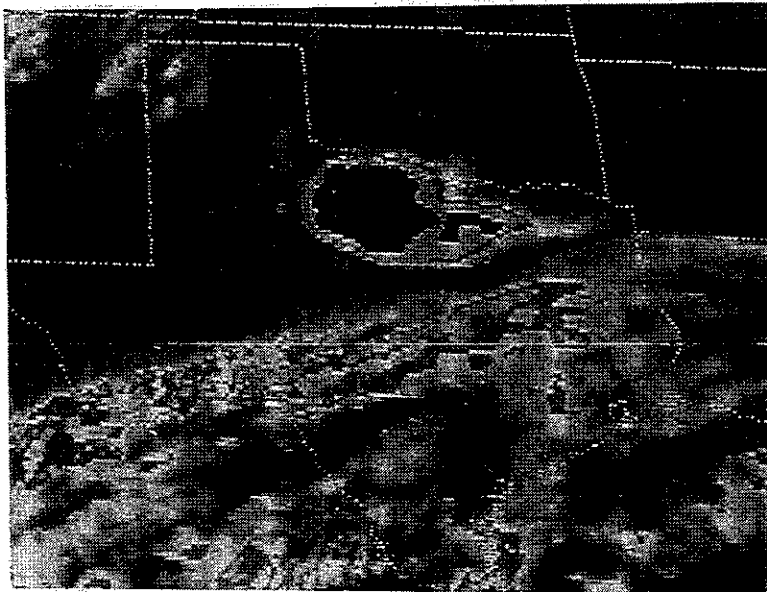


Composite 6PM CST April 25, 1991

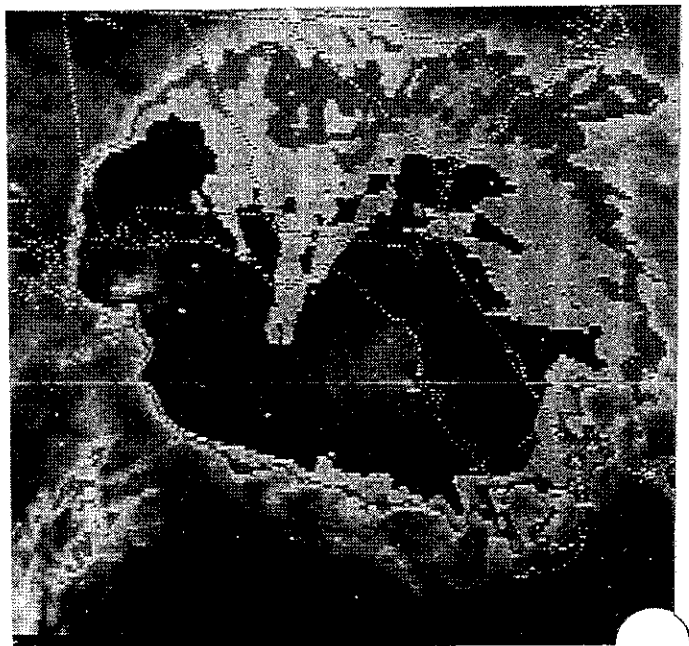
500MB 6PM CST April 25, 1991



Surface 3PM CST April 25, 1991



GOES 8PM CST April 25, 1991



GOES 1PM CST April 25, 1991

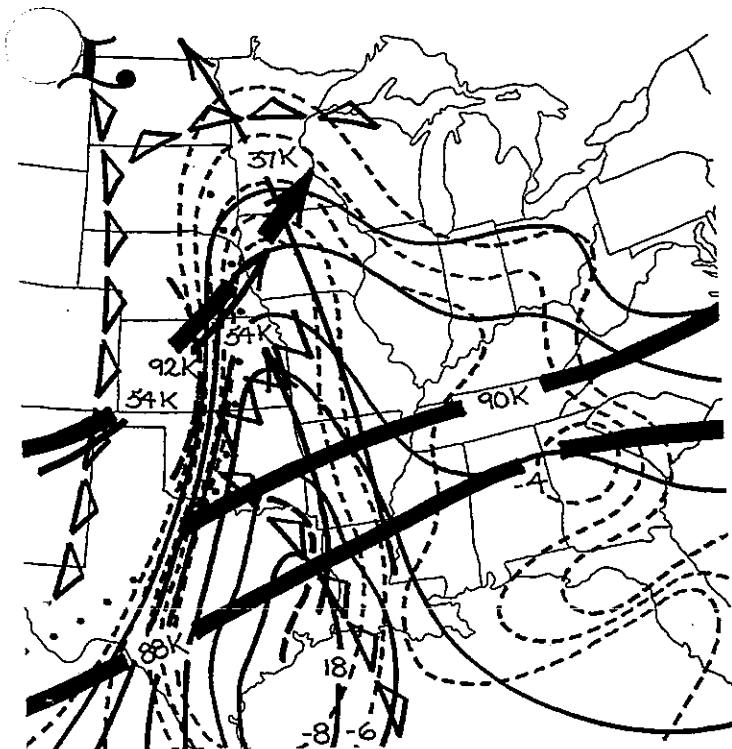
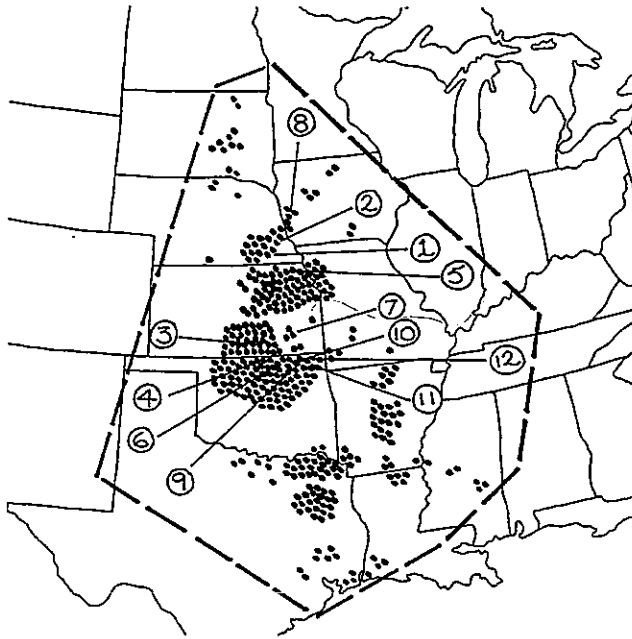


\*\*\* 348 SEVERE REPORTS \*\*\*

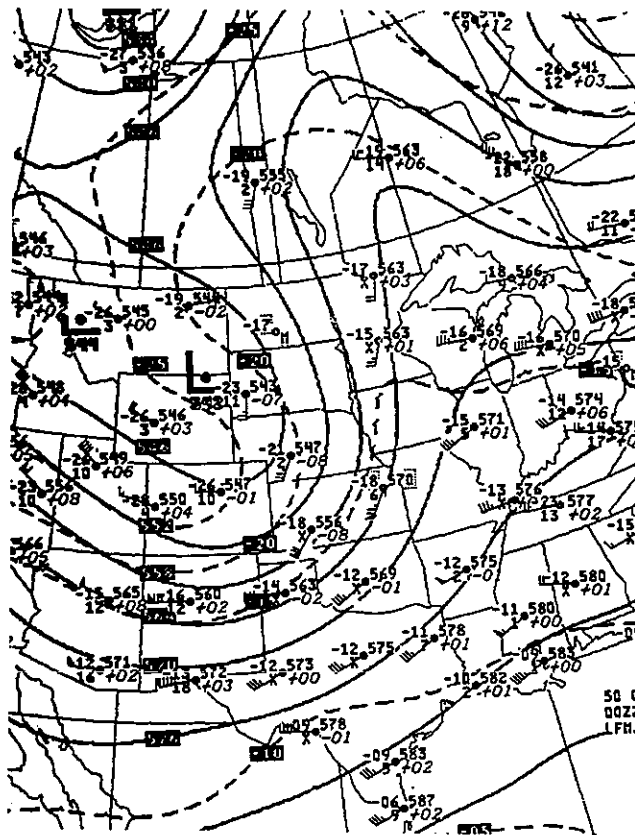
\*\*\* 57 TORNADOES \*\*\*

\*\*\* 0610-0425 CST \*\*\*

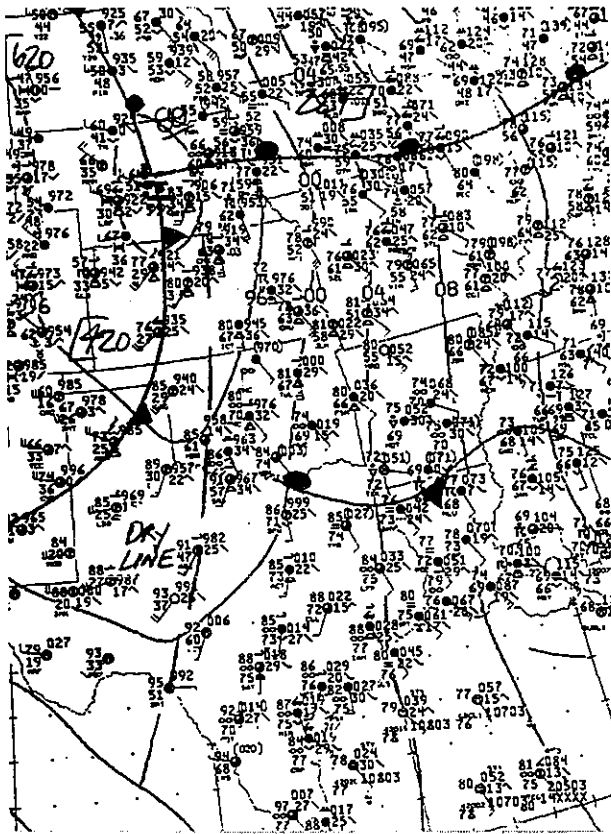
NO	TIME	EVENT	ST	LOCATION	
1	1450	TORNADO (F-3)	NE	6 WSW ODELL	(20 SW BIE)
2	1615	TORNADO (F-3) two injuries	NE	2 NW DOUGLAS	(25 SE LNK)
3	1657	TORNADO (F-5) seventeen deaths, 225 injuries, 162 million dollars damage, 69 mile path length (thirteen deaths at Andover KS)	KS	CLEARWATER	(11 SSW ICT)
4	1730	TORNADO (F-4) one death, more than five million dollars damage	KS	5 W ARKANSAS CITY	(23 N PNC)
5	1730	94 MPH WIND GUST	KS	HIAWATHA	(15 SSE FNB)
6	1730	TORNADO (F-4) six injuries, 66 mile path length	OK	GARBER	(19 ENE END)
7	1826	TORNADO (F-3) one death, two injuries	KS	7 W HOWARD	(52 WSW CNU)
8	1900	TORNADO (F-3) 23 mile path length	IA	DENISON	(57 NE OMA)
9	1910	TORNADO (F-4) one death, 24 injuries, 2.9 million dollars damage, 32 mile path length (19 injuries at Skistook OK)	OK	TERLTON	(32 W TUL)
10	2005	TORNADO (F-2) one death, ten injuries	OK	COPAN	(11 NNE BVO)
11	2045	TORNADO (F-4) twenty-two injuries, 3/4 mile path width, 14.9 million dollars damage, (12 million dollars damage to school complex)	OK	OLOGAH	(20 NE TUL)
12	2233	4.75 INCH HAIL	OK	WYANDOTTE	(27 SSW JLN)



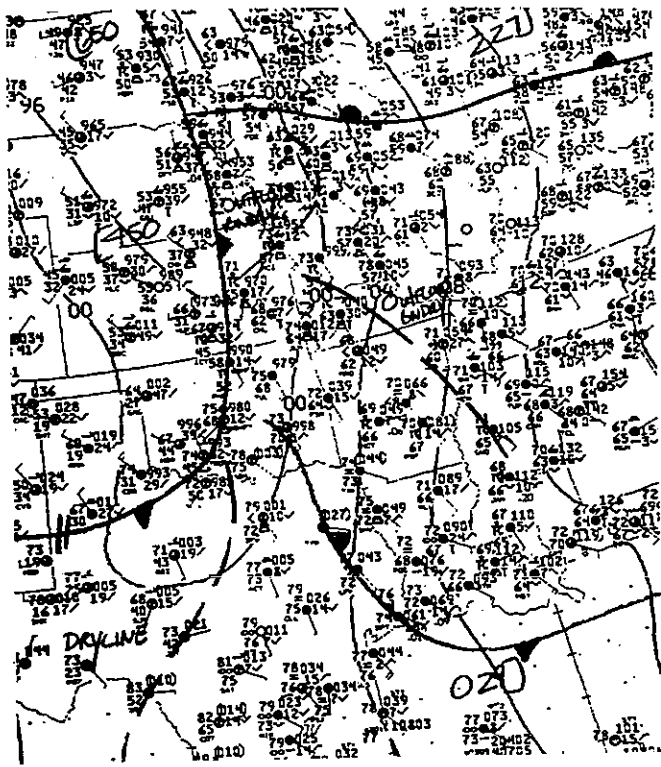
Composite 6PM CST April 26, 1991



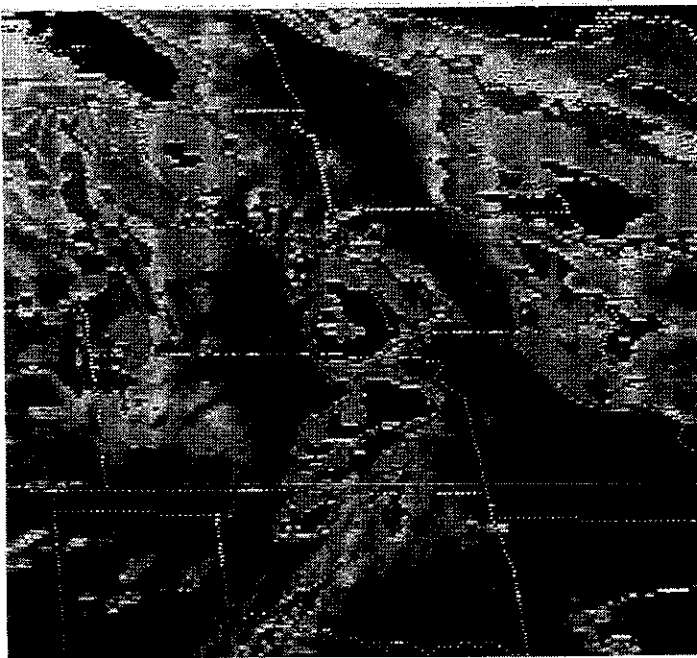
500MB 6PM CST April 26, 1991



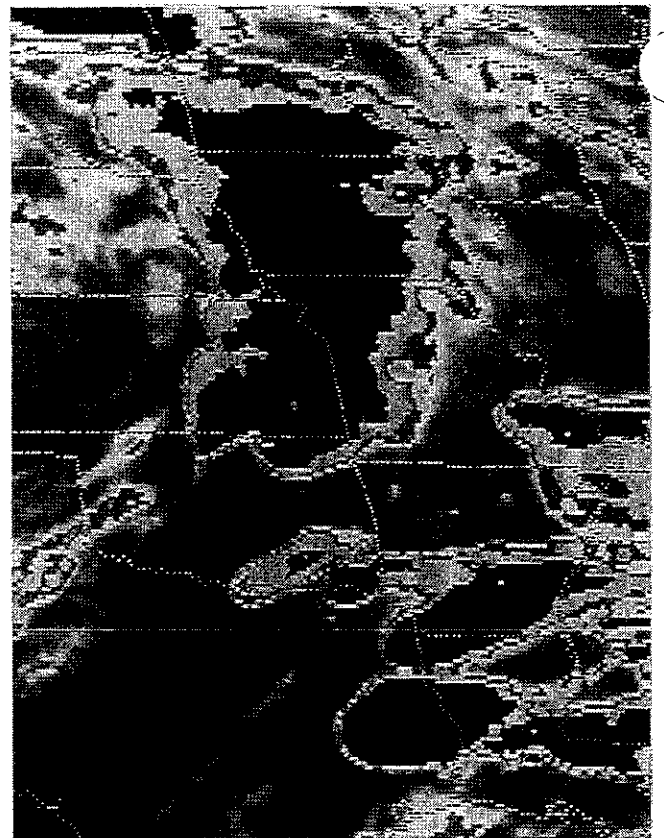
Surface 3PM CST April 26, 1991



Surface 9PM CST April 26, 1991



GOES 3PM CST April 26, 1991



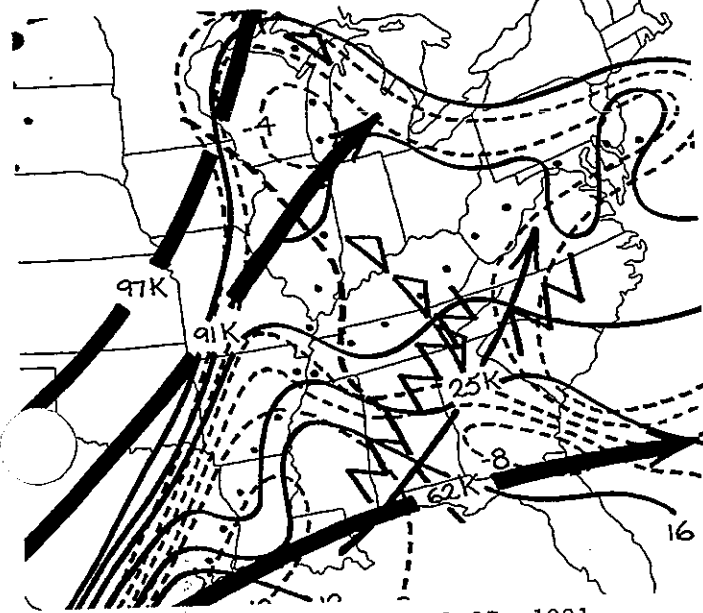
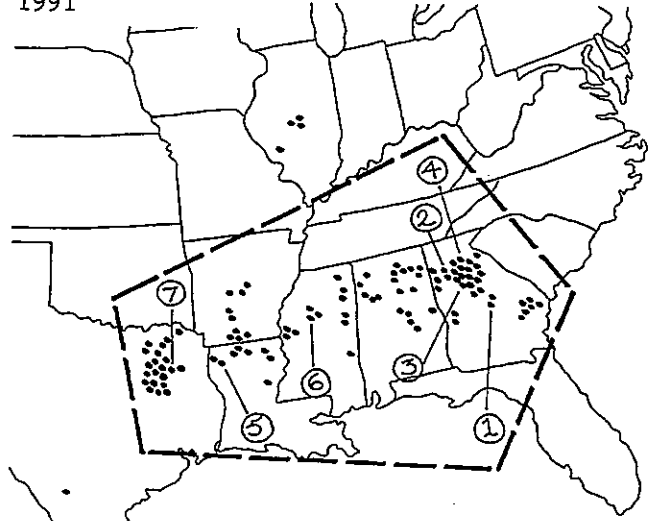
GOES 8PM CST April 26, 1991

\*\*\* 99 SEVERE REPORTS \*\*\*

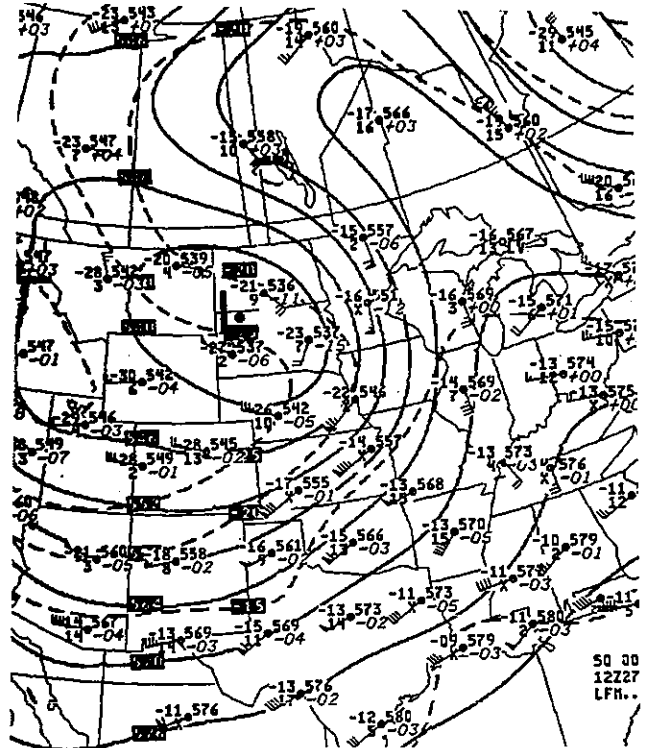
\*\*\* 6 TORNADES \*\*\*

\*\*\* 1400-0520 CST \*\*\*

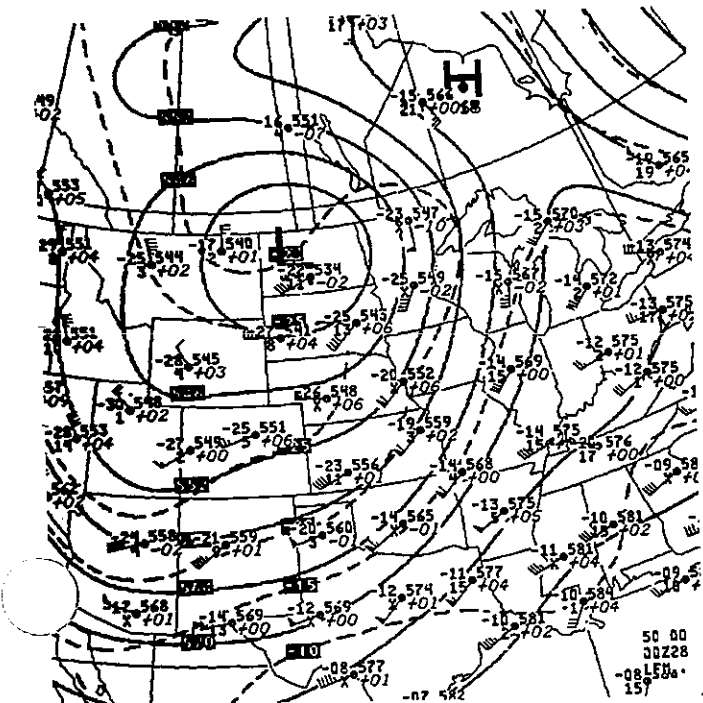
NO	TIME	EVENT	ST	LOCATION	
1	1400	TORNADO (F-1) five injuries	GA	4 E SOPERTON	(59 N AMG)
2	1645	TORNADO (F-0) three injuries	GA	2 S WOODSTOCK	(13 N MGE)
3	1707	WIND DAMAGE three injuries	GA	2 N JONESBORO	(10 SSE ATL)
4	1715	WIND DAMAGE two million dollars damage	GA	DORAVILLE	(13 E MGE)
5	1730	2.75 INCH HAIL	LA	HEFLIN	(32 E SHV)
6	2140	92 MPH WIND GUST	MS	GREENWOOD	( GWO)
7	2215	2.75 INCH HAIL	TX	LINDALE	(11 N TYR)



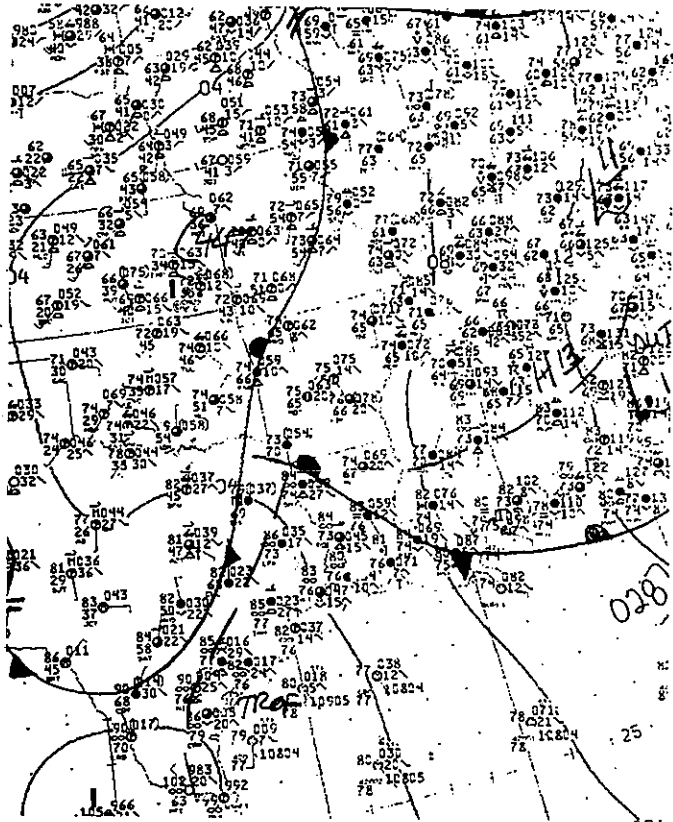
Composite 6PM CST April 27, 1991



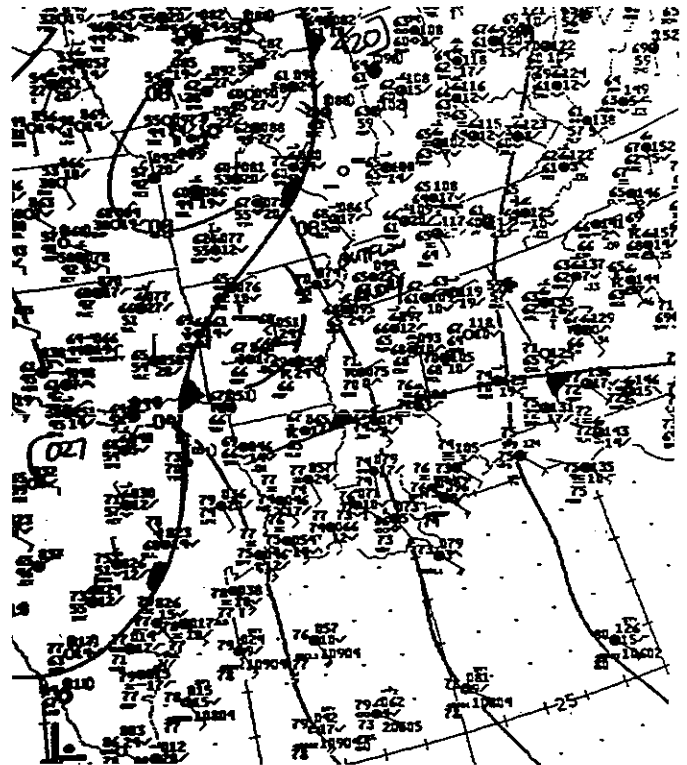
500MB 6AM CST April 27, 1991



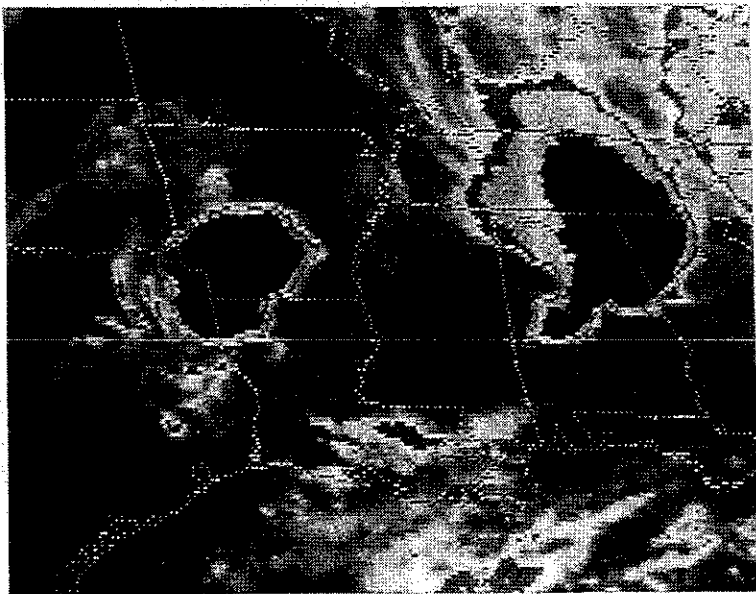
500MB 6PM CST April 27, 1991



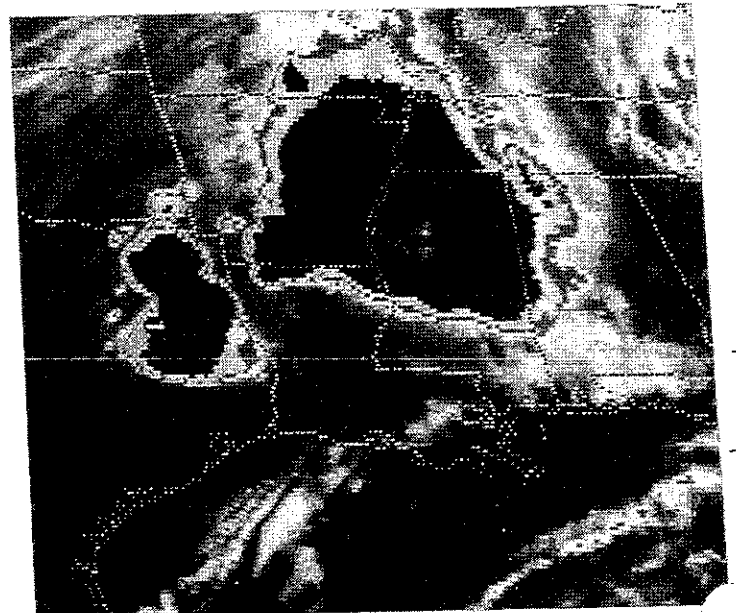
Surface 3PM CST April 27, 1991



Surface 9PM CST April 27, 1991



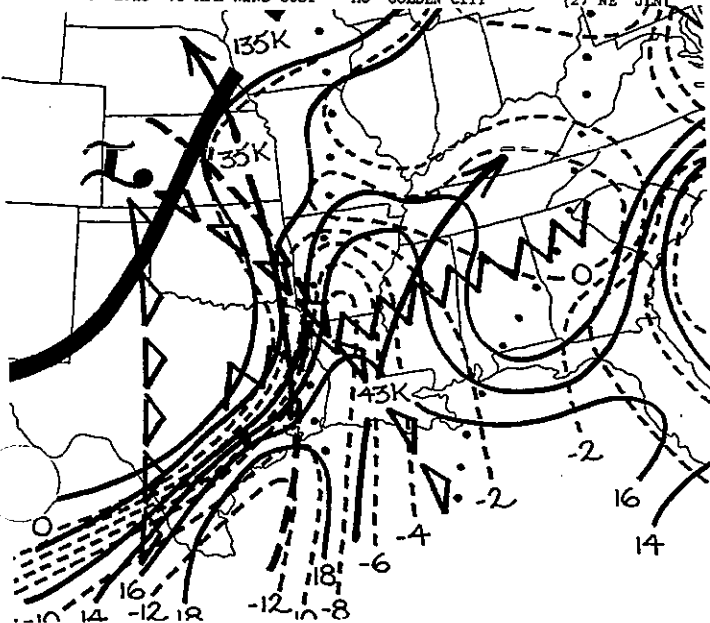
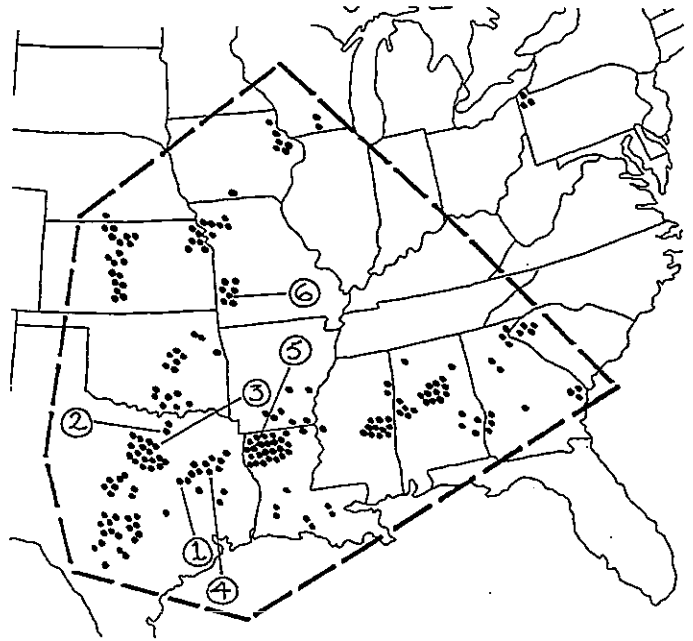
GOES 4PM CST April 27, 1991



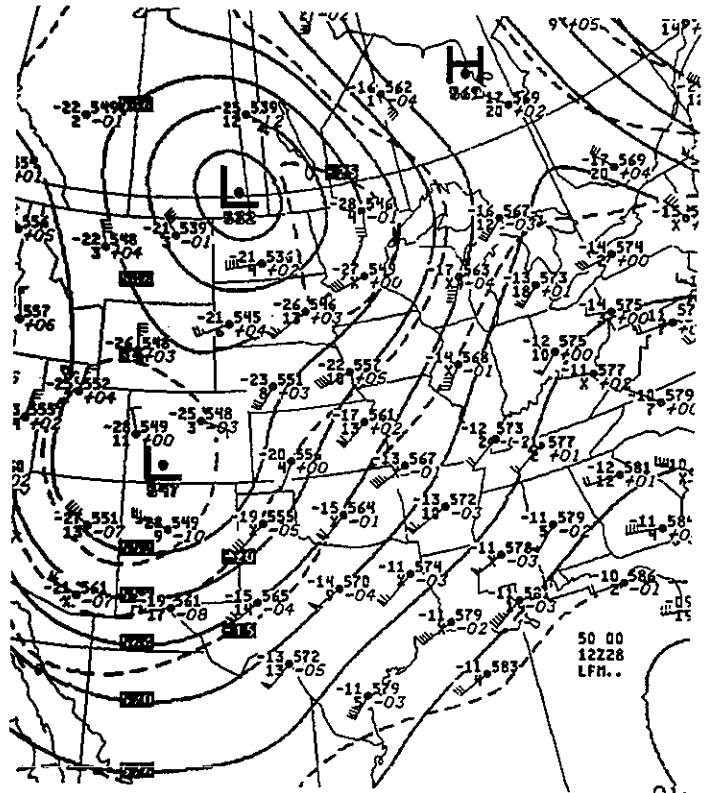
GOES 10PM CST April 27, 1991

\*\*\* 212 SEVERE REPORTS \*\*\*  
 \*\*\* 13 TORNADES \*\*\*  
 \*\*\* 0753-0003 CST \*\*\*

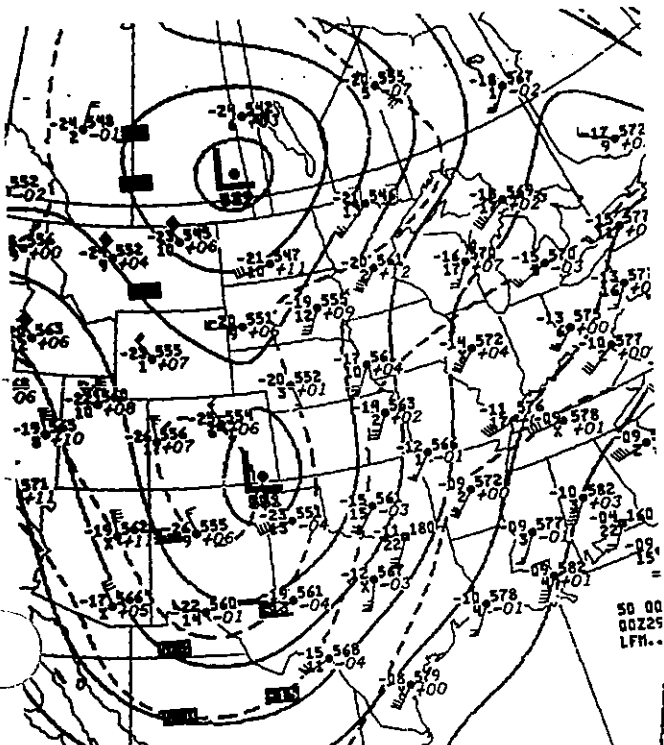
NO	TIME	EVENT	ST	LOCATION	
1	1130	TORNADO (F-2)	TX	2 S HAMILTON	(53 W ACT)
2	1233	TORNADO (F-2)	TX	9 NE LEWISVILLE	(11 N DFW)
3	1315	2.75 INCH HAIL	TX	FERRIS	(23 S DAL)
4	1447	2.75 INCH HAIL	TX	DIALVILLE	(38 SSW TYR)
5	1645	WIND DAMAGE one death, one injury	LA	N SHREVEPORT	( 5 ENE SHV)
6	1715	75 MPH WIND GUST	MO	GOLDEN CITY	(27 NE JIN)



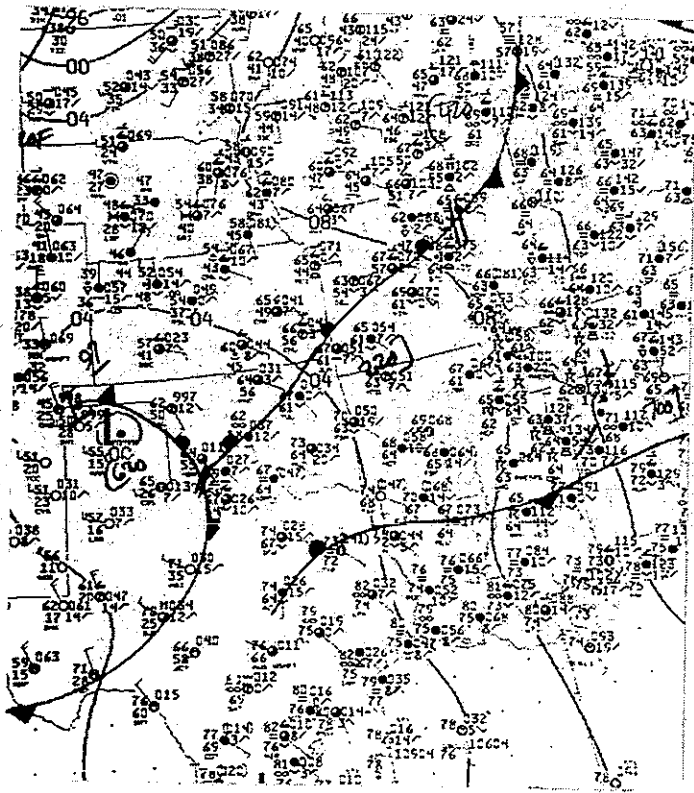
Composite 6PM CST April 28, 1991



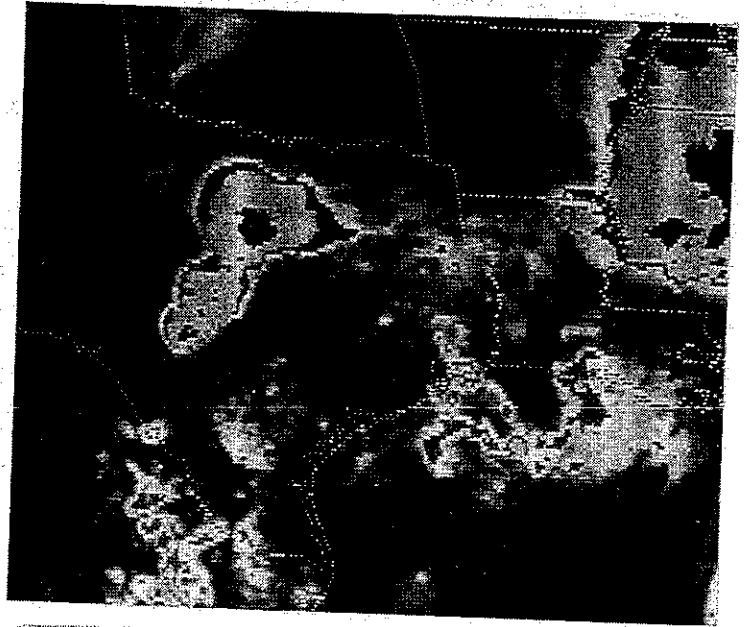
500MB 6AM CST April 28, 1991



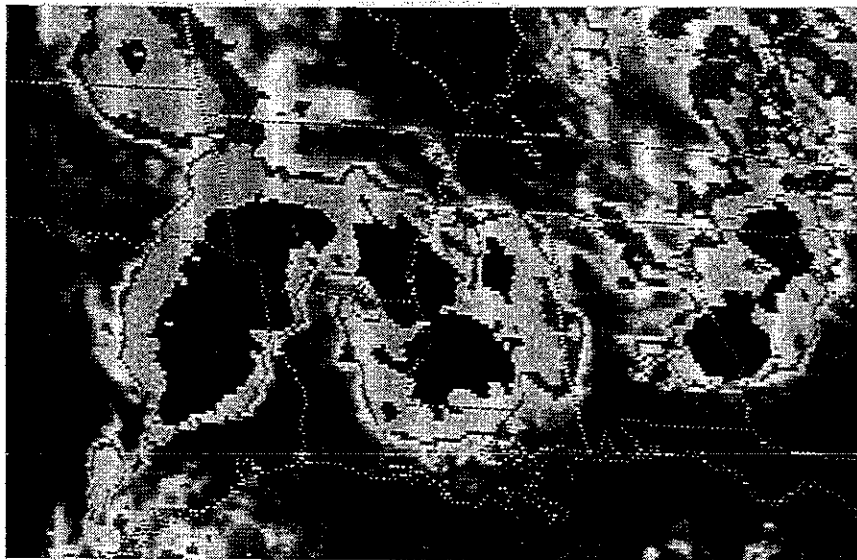
500MB 6PM CST April 28, 1991



Surface 12 Noon CST April 28, 1991



GOES 11AM CST April 28, 1991



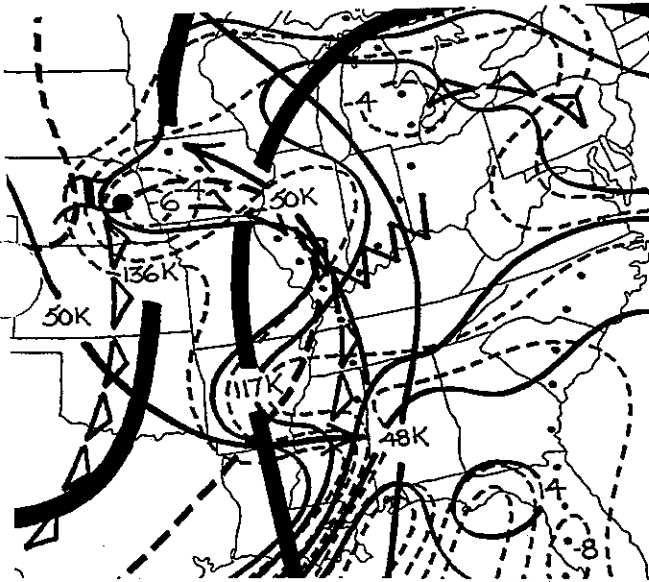
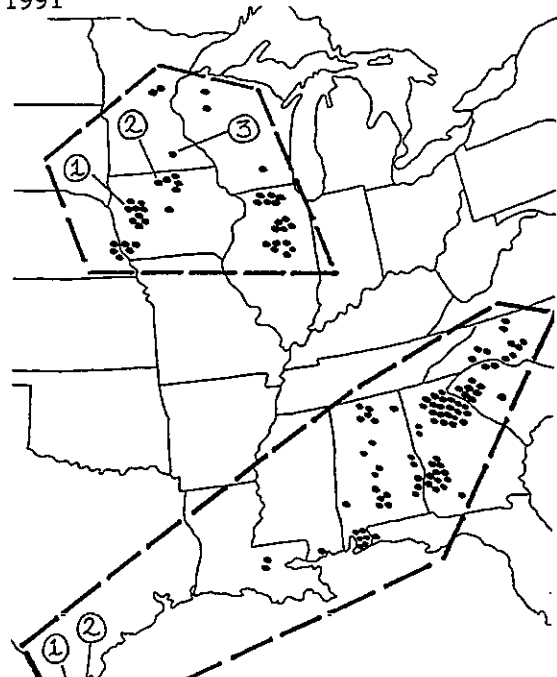
GOES 4PM CST April 28, 1991

\*\*\* 90 SEVERE REPORTS \*\* No. 70 April 29, 1991  
 \*\*\* 5 TORNADOES \*\*\*  
 \*\*\* 0615-2015 CST \*\*\*

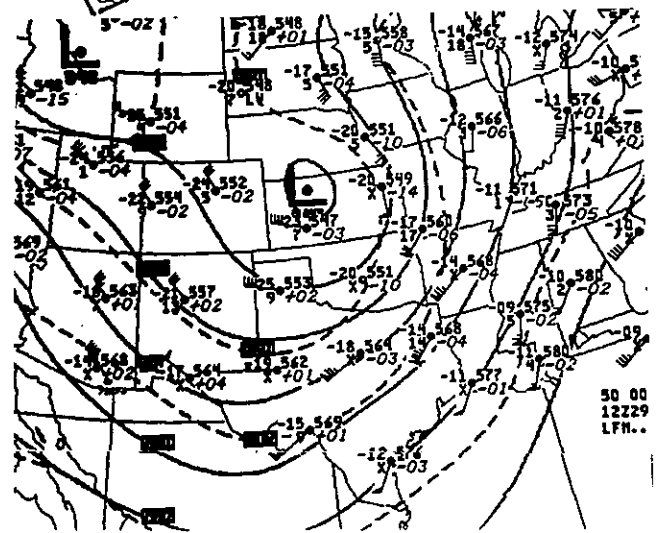
NO	TIME	EVENT	ST	LOCATION	
1	0550	4.50 INCH HAIL one injury	TX	PHARR	( MFE)
2	0620	4.50 INCH HAIL	TX	WESLACO	(15 E MFE)

\*\*\* 43 SEVERE REPORTS \*\*\*  
 \*\*\* 17 TORNADOES \*\*\*  
 \*\*\* 1200-1930 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1230	2.75 INCH HAIL	IA	2 E ODEBOLT	(57 E SUX)
2	1430	80 MPH WIND GUST	IA	BUFFALO CENTER	(29 ESE FRM)
3	1550	TORNADO (F-1) nine injuries (mobile home park)	MN	MONTGOMERY	(35 SW MSP)



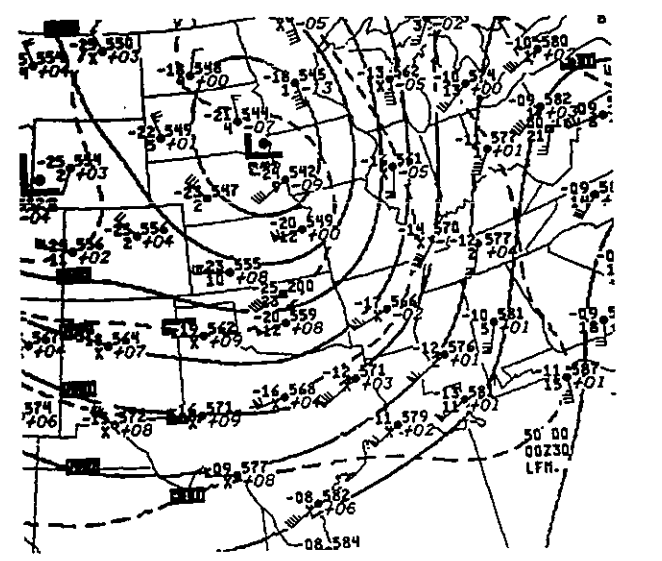
Composite 6AM CST April 29, 1991



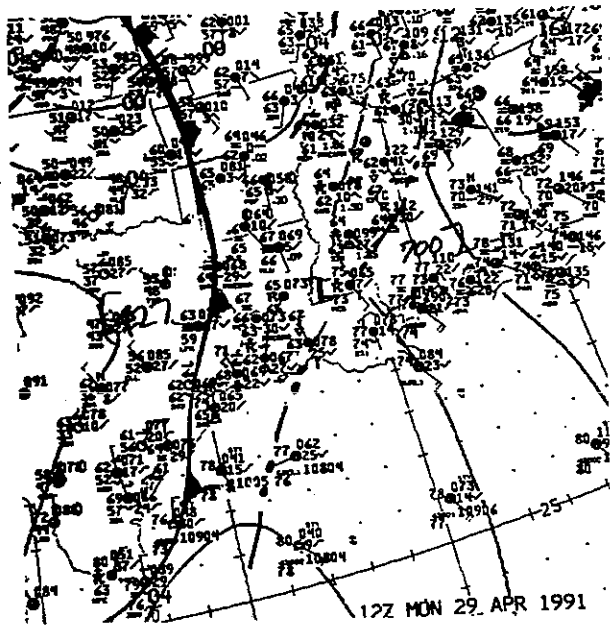
500MB 6AM CST April 29, 1991



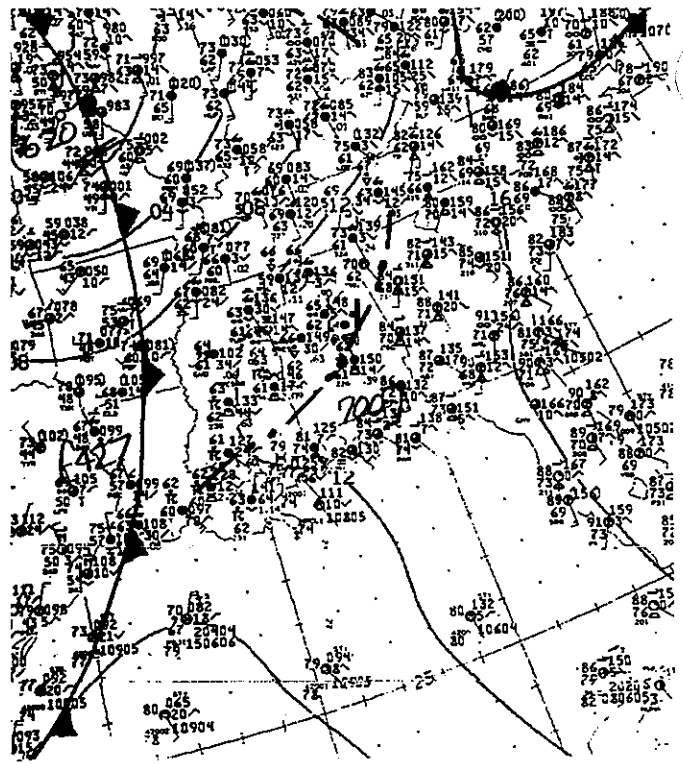
Composite 6PM CST April 29, 1991



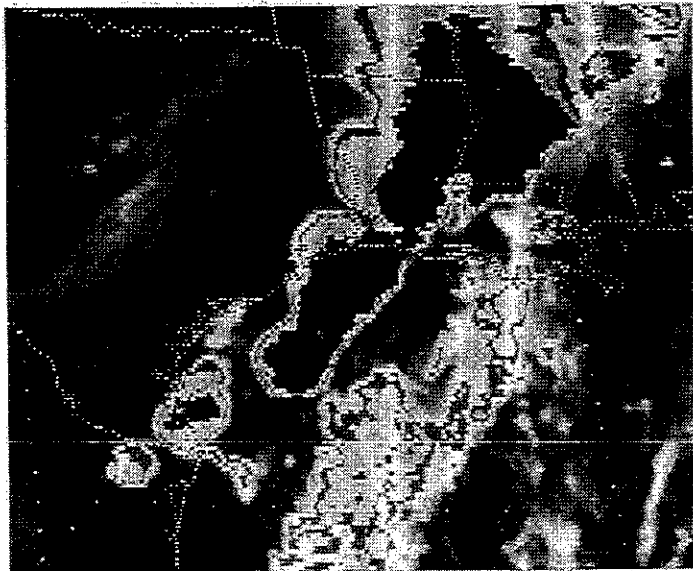
500MB 6PM CST April 29, 1991



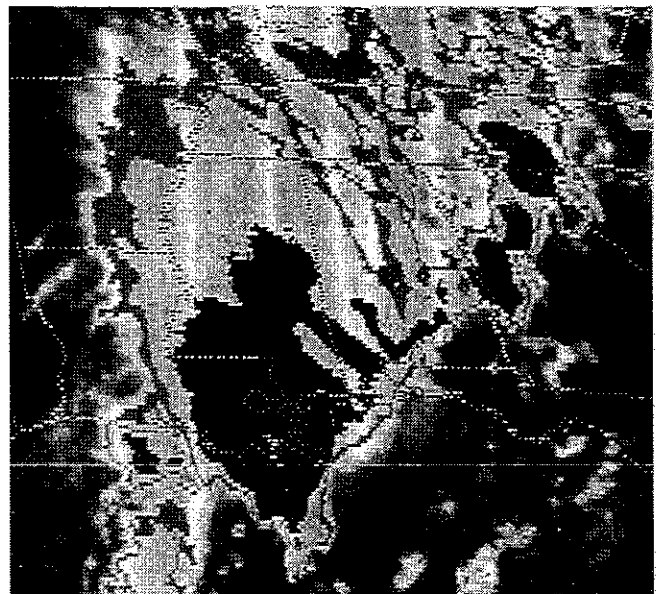
Surface 6AM CST April 29, 1991



Surface 3PM CST April 29, 1991



GOES 7AM CST April 29, 1991



GOES 2PM CST April 29, 1991

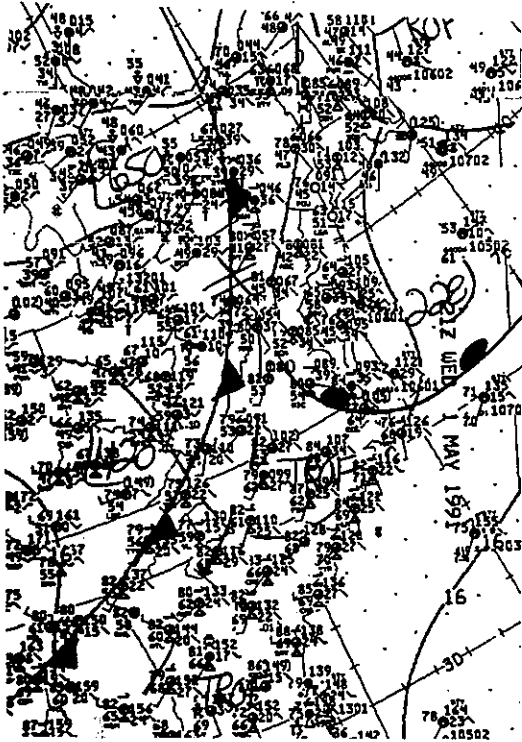


\*\*\* 141 SEVERE REPORTS \*\*\*

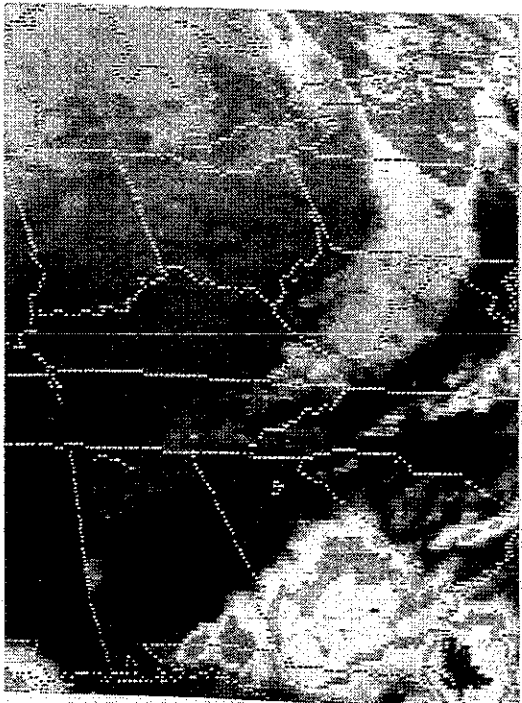
\*\*\* 4 TORNADOES \*\*\*

\*\*\* 1050-1920 CST \*\*\*

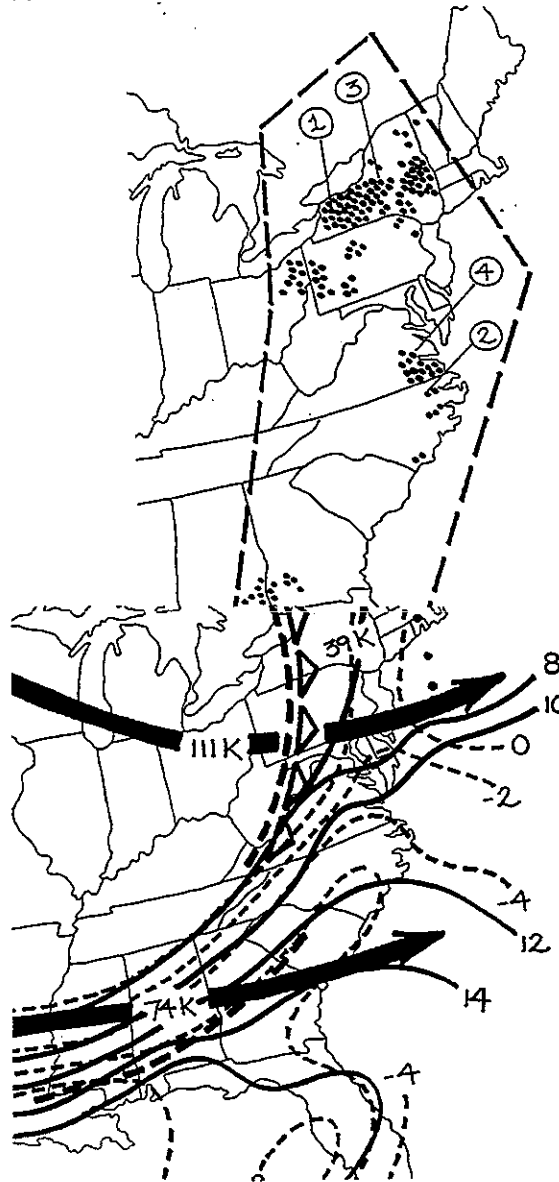
TIME	EVENT	ST	LOCATION	
1 1322	85 MPH WIND GUST	NY	SOUTH WARSAW	(34 ESE BUF)
2 1440	2.00 INCH HAIL	NC	ROBERSONVILLE	(36 E RWI)
3 1545	WIND DAMAGE one death, two injuries	NY	ONEIDA CASTLE	(14 WSW UCA)
4 1800	2.00 INCH HAIL	VA	WAKEFIELD AIRPORT	(39 SSE RIC)



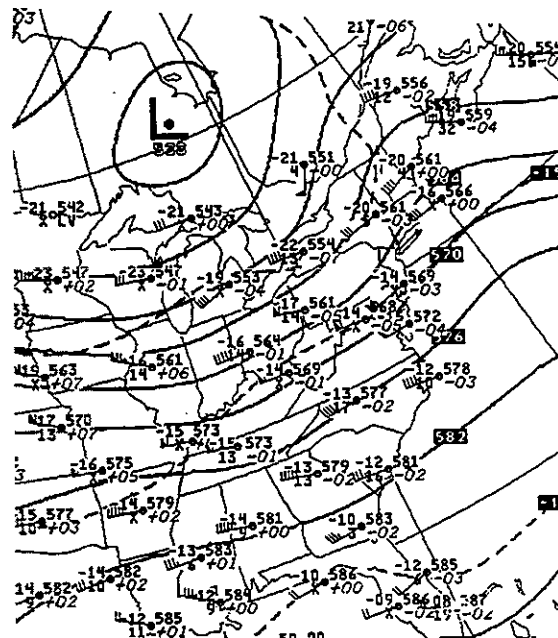
Surface 3PM CST May 1, 1991



GOES 4PM CST May 1, 1991



Composite 6PM CST May 1, 1991

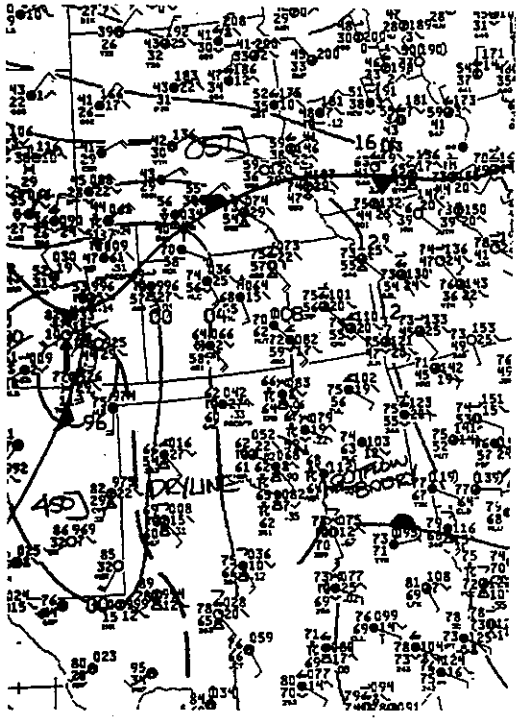
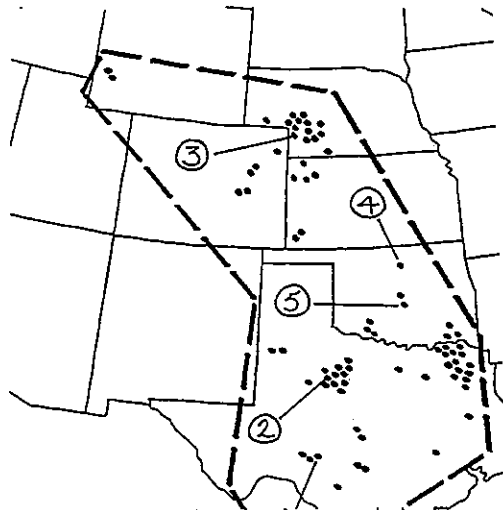


\*\*\* 75 SEVERE REPORTS \*\*\*

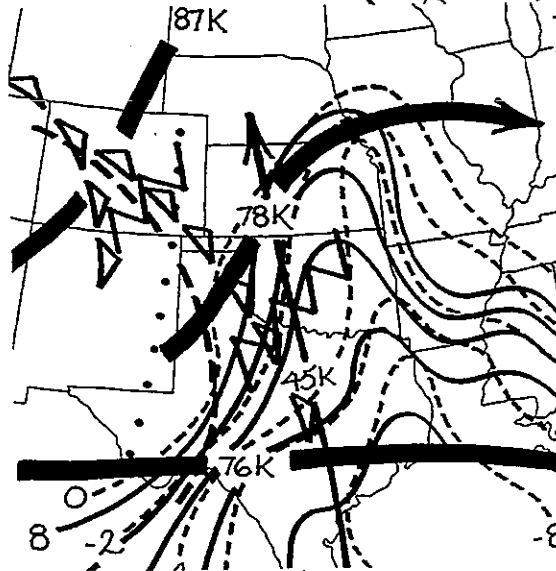
\*\*\* 18 TORNADOES \*\*\*

\*\*\* 1255-0524 CST \*\*\*

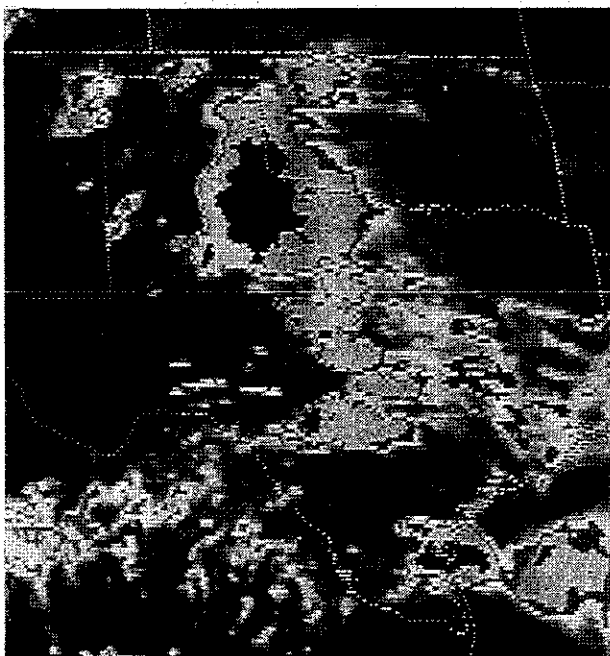
NO	TIME	EVENT	ST	LOCATION	
1	1330	2.75 INCH HAIL	TX	CONCAN	(35 WNW HDO)
2	1418	TORNADO (F-2)	TX	HAMLIN	(41 NW ABI)
3	1800	TORNADO (F-3) more than half a million dollars damage	NE	GRANT	(22 NNW IML)
4	1825	80 MPH WIND GUST	OK	3 E KINGFISHER	(34 S END)
5	1900	TORNADO (F-1) three injuries	OK	BLANCHARD	(18 SSW OKC)



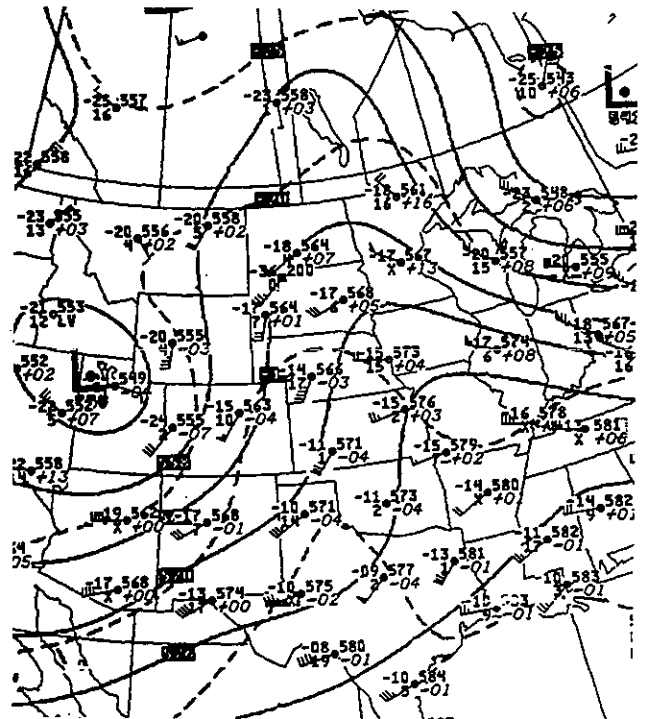
Surface 6PM CST May 2, 1991



Composite 6PM CST May 2, 1991



GOES 1PM CST May 2, 1991



98 500MB 6PM CST May 2, 1991

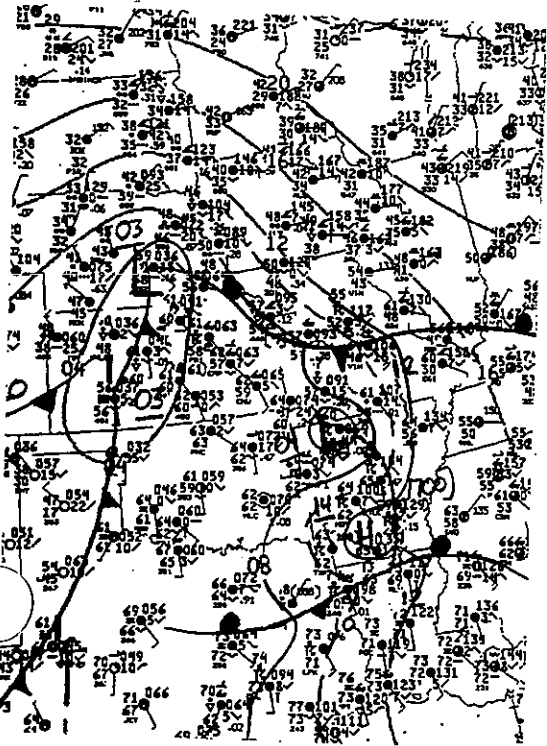
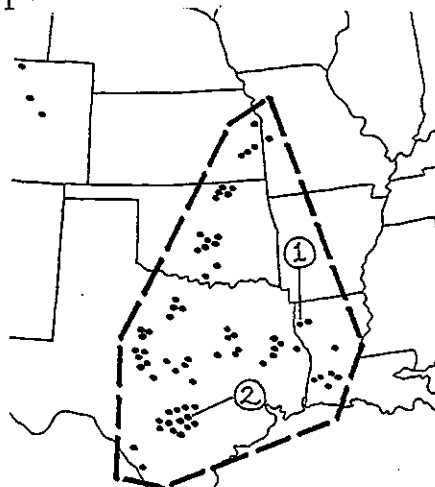
\*\*\* 74 SEVERE REPORTS \*\*\*

No. 73 May 3-4 1991

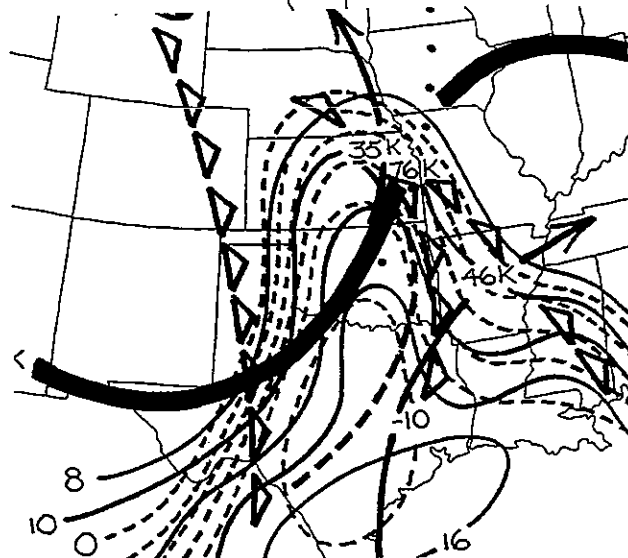
\*\*\* 5 TORNADOES \*\*\*

\*\*\* 0632-0400 CST \*\*\*

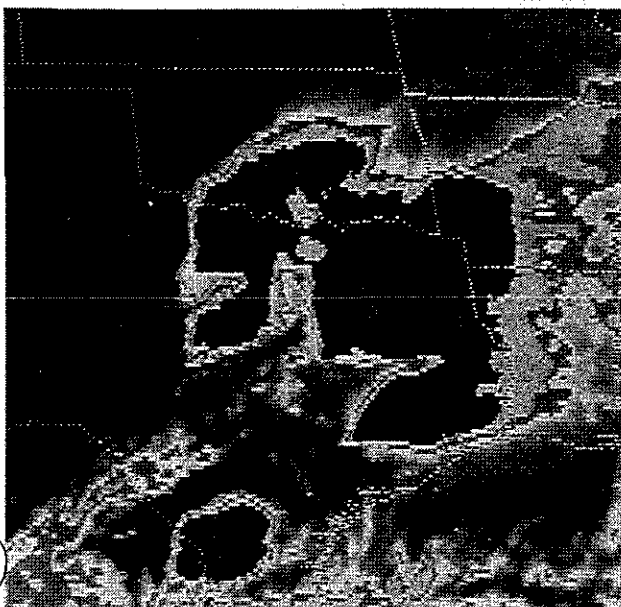
NO	TIME	EVENT	ST	LOCATION	
1	0632	87 MPH WIND GUST	LA	SHREVEPORT	( SHV)
		more than five million dollars damage			
2	1145	4.50 INCH HAIL	TX	MARION	(19 E SAT)



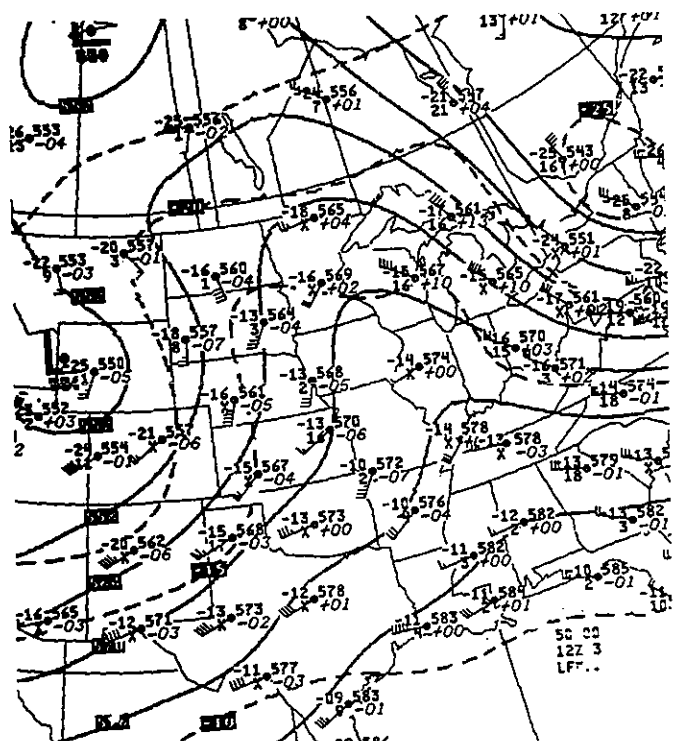
Surface 6AM CST May 3, 1991



Composite 6AM CST May 3, 1991



GOES 4PM CST May 3, 1991



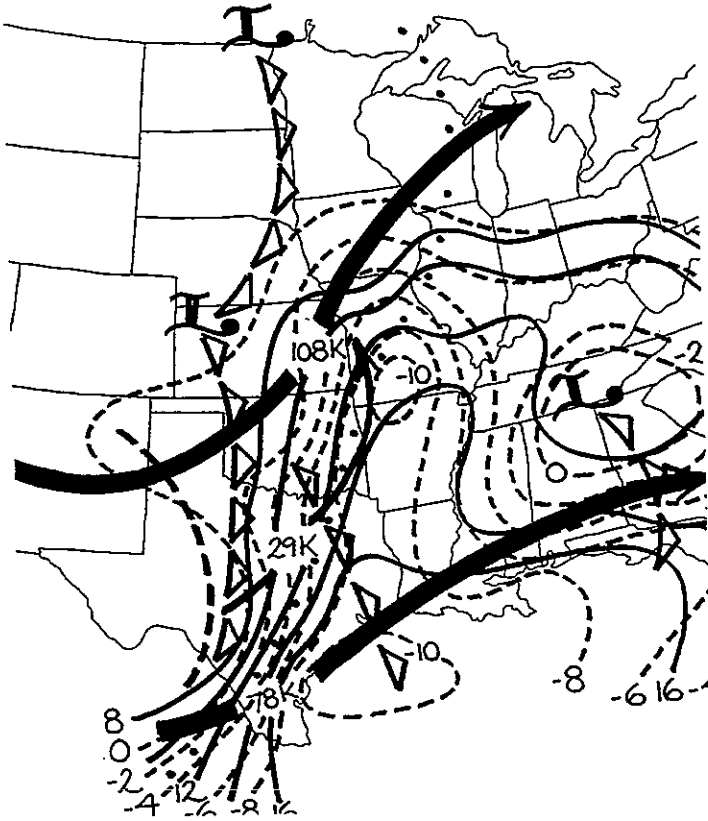
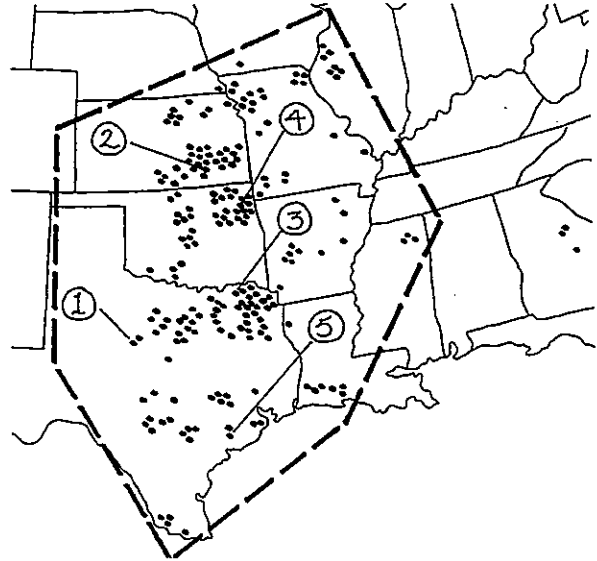
99 500MB 6AM CST May 3, 1991

\*\*\* 200 SEVERE REPORTS \*\*\*

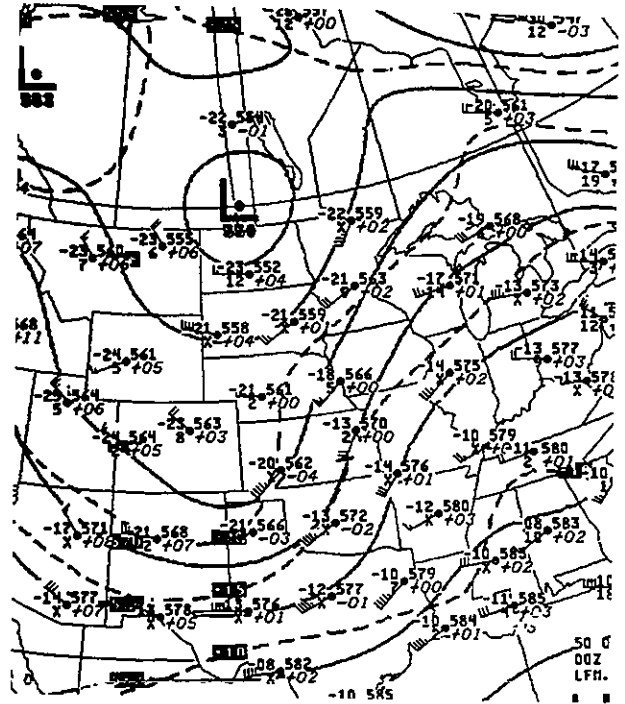
\*\*\* 14 TORNADOES \*\*\*

\*\*\* 1019-0515 CST \*\*\*

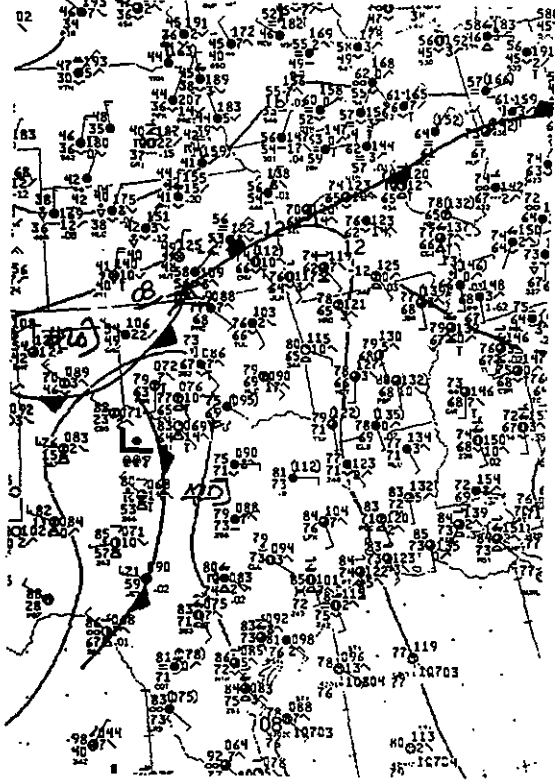
NO	TIME	EVENT	ST	LOCATION	
1	1155	4.50 INCH HAIL	TX	WINTERS	(35 SSW ABI)
2	1614	3.00 INCH HAIL	KS	LATHAM	(43 E ICT)
3	1740	90 MPH WIND GUST	TX	SULPHUR SPRINGS	(34 SSW PRX)
4	1743	85 MPH WIND GUST	OK	CHELSEA	(34 NE TUL)
5	2030	105 MPH WIND GUST 1.5 million dollars damage	TX	EL CAMPO	(32 N PSX)



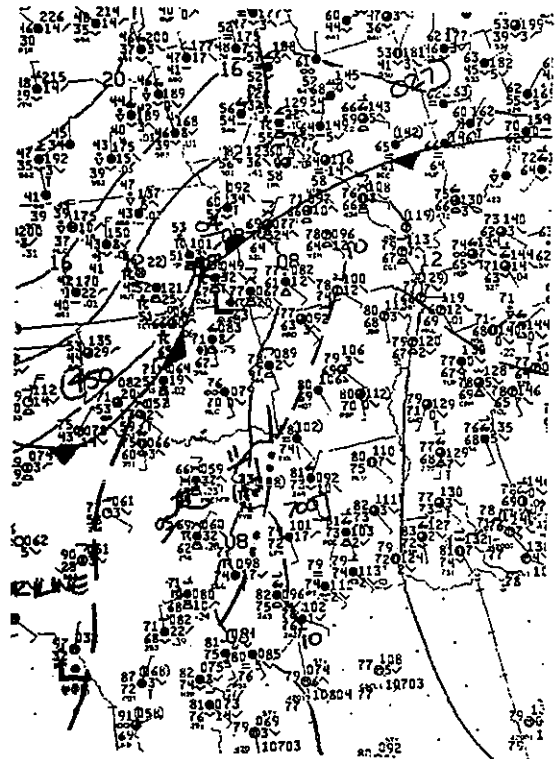
Composite 6PM CST May 4, 1991



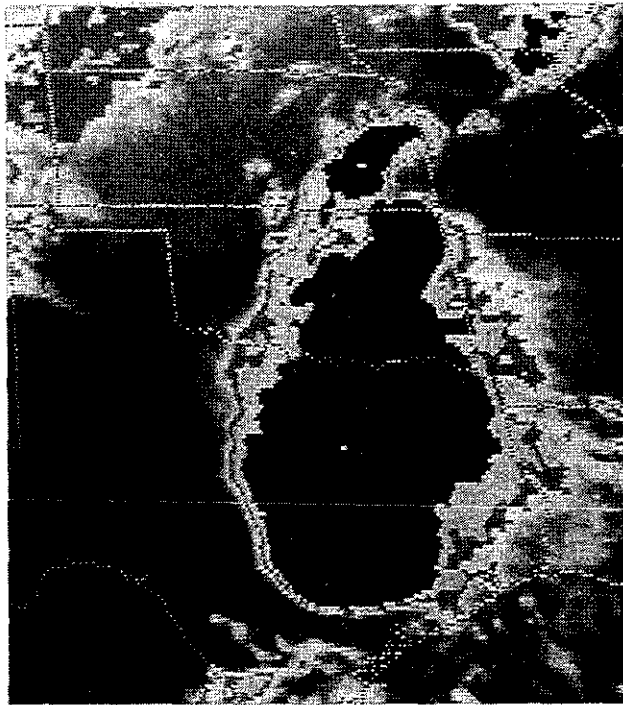
500MB 6PM CST May 4, 1991



Surface 12Noon CST May4, 1991



Surface 6PM CST May 4, 1991



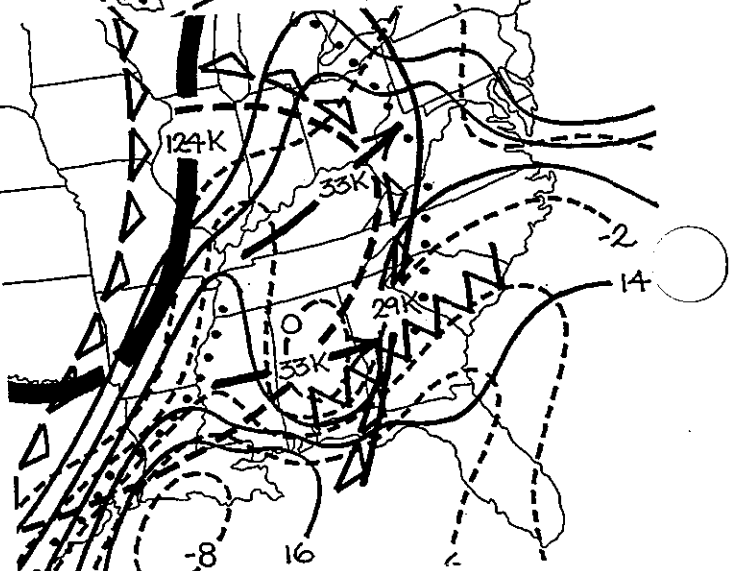
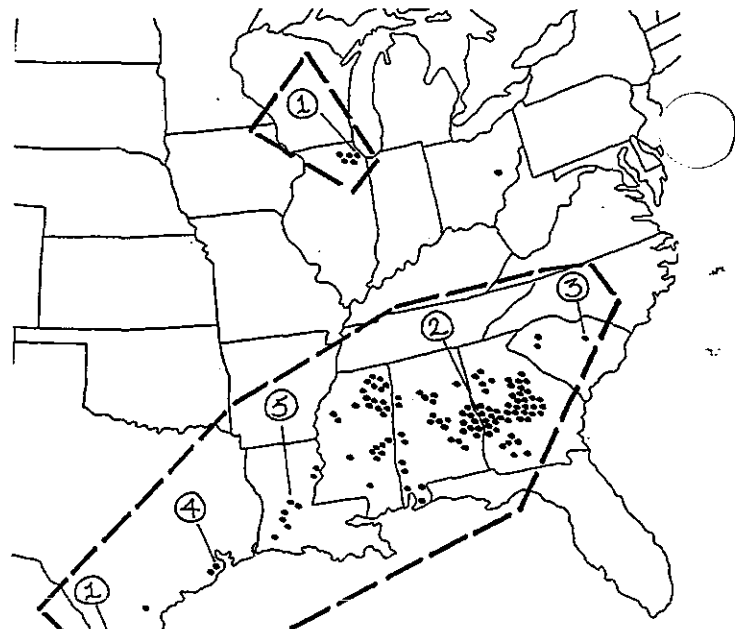
GOES 5PM CST May 4, 1991

\*\*\* 122 SEVERE REPORTS \*\*\*

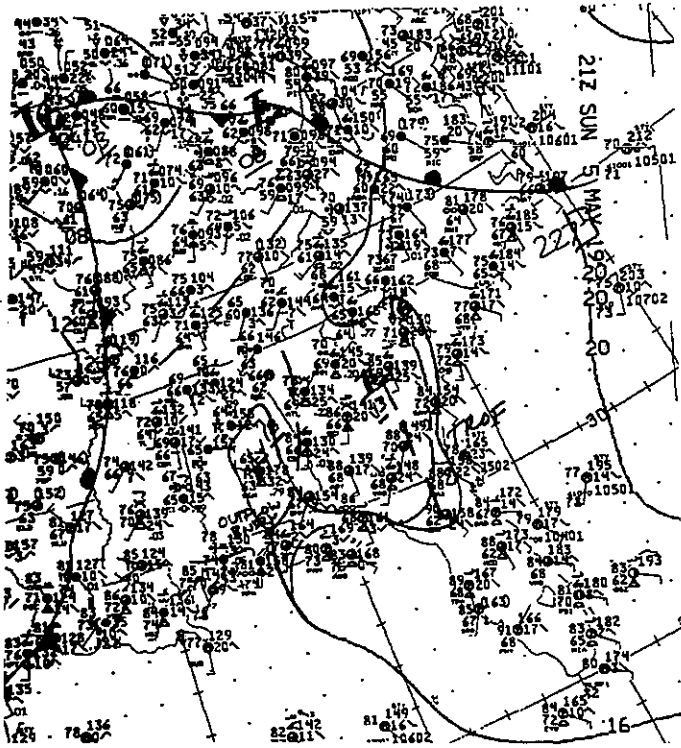
\*\*\* 7 TORNADES \*\*\*

\*\*\* 0650-0030 CST \*\*\*

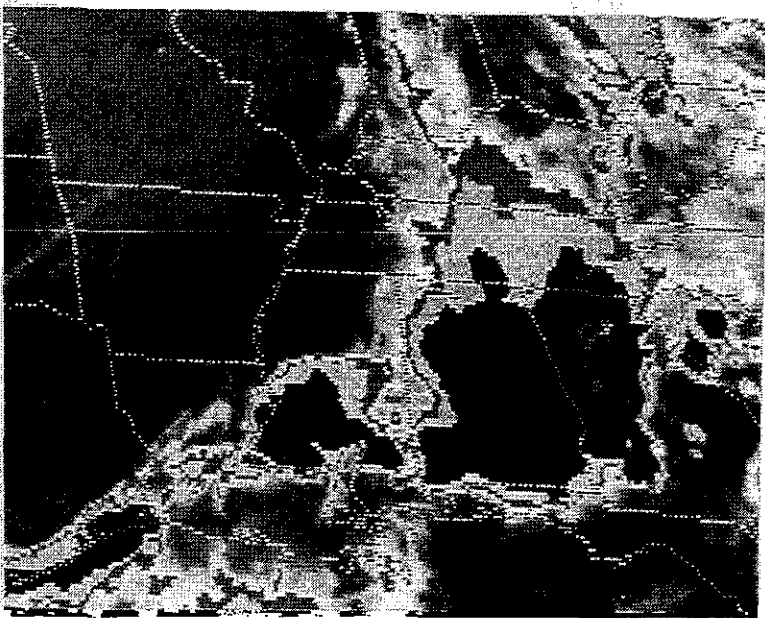
NO	TIME	EVENT	ST	LOCATION	
1	0700	TORNADO (F-2)	TX	LA VICTORIA	(30 WNW MPE)
2	1511	80 MPH WIND GUST	GA	COLUMBUS AIRPORT	( CSG)
3	1700	WIND DAMAGE one death, one injury	SC	DALZELL	( 3 N SSC)
4	1830	80 MPH WIND GUST 2.00 INCH HAIL	TX	GALVESTON	( 4 WSW GLS)
5	2015	2.00 INCH HAIL	LA	JONESVILLE	(31 ENE ESF)



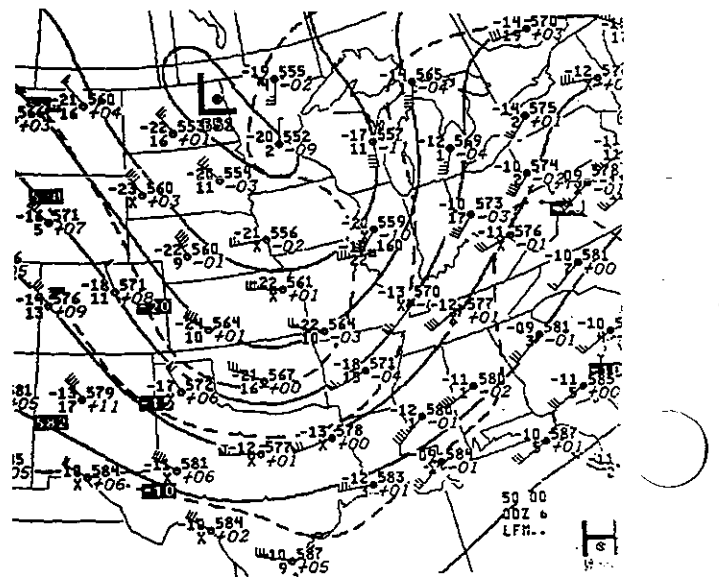
Composite 6PM CST May 5, 1991



Surface 3PM CST May 5, 1991



GOES 4PM CST May 5, 1991



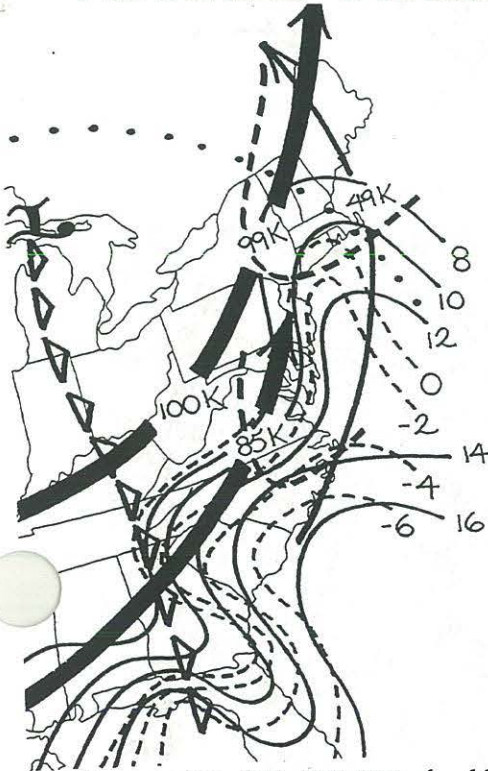
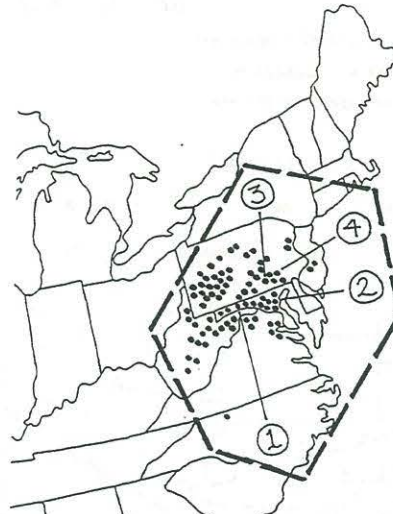
500MR 6PM CST May 5, 1991

\*\*\* 79 SEVERE REPORTS \*\*\*

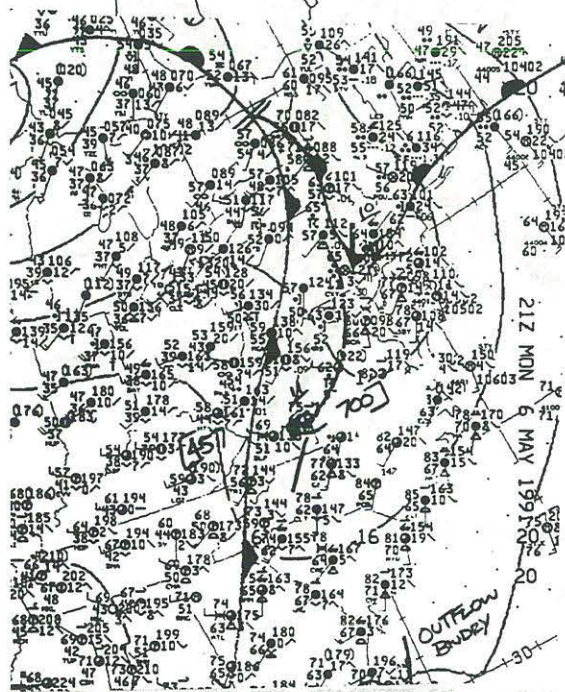
\*\*\* 2 TORNADOES \*\*\*

\*\*\* 1002-1655 CST \*\*\*

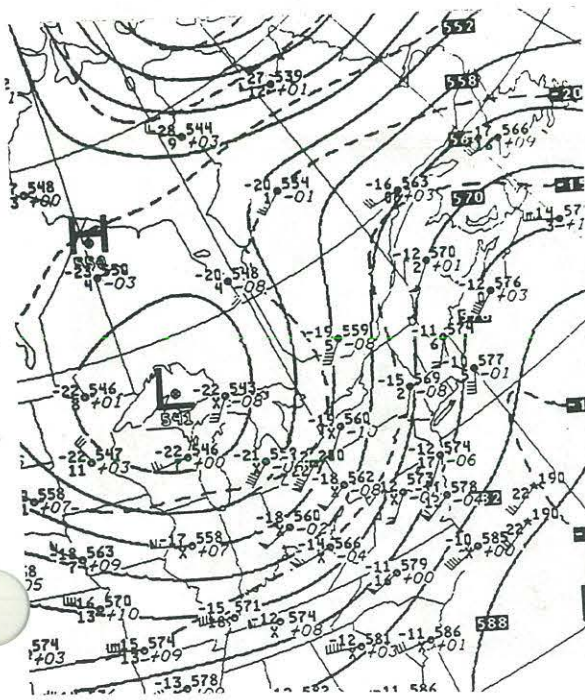
NO	TIME	EVENT	ST	LOCATION
1	1330	1.75 INCH HAIL	MD	WASHINGTON COUNTY ( 6 SSW HGR)
2	1520	80 MPH WIND GUST	MD	JARRETTSVILLE (30 NNE BWI)
3	1540	TORNADO (F-2) thirteen injuries	PA	BAINBRIDGE (13 SE CXY)
4	1720	92 MPH WIND GUST	PA	1 SW WERNERSVILLE ( 8 WSW RDG)



Composite 6PM CST May 6, 1991



Surface 3PM CST May 6, 1991



500MB 6PM CST May 6, 1991



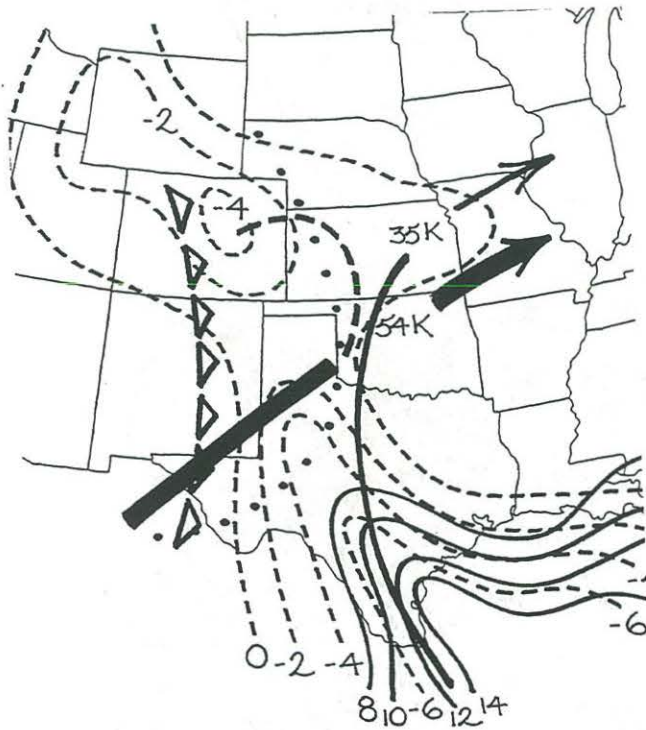
GOES 11AM CST May 6, 1991

\*\*\* 37 SEVERE REPORTS \*\*\*

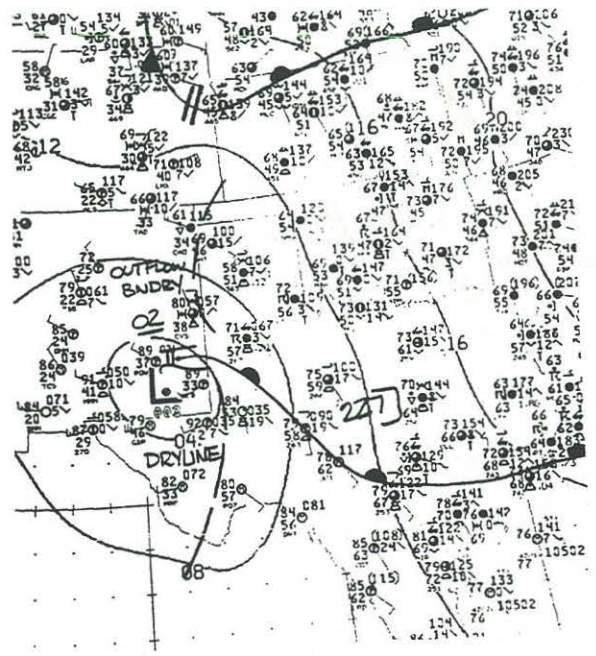
\*\*\* 9 TORNADOES \*\*\*

\*\*\* 1420-2051 CST \*\*\*

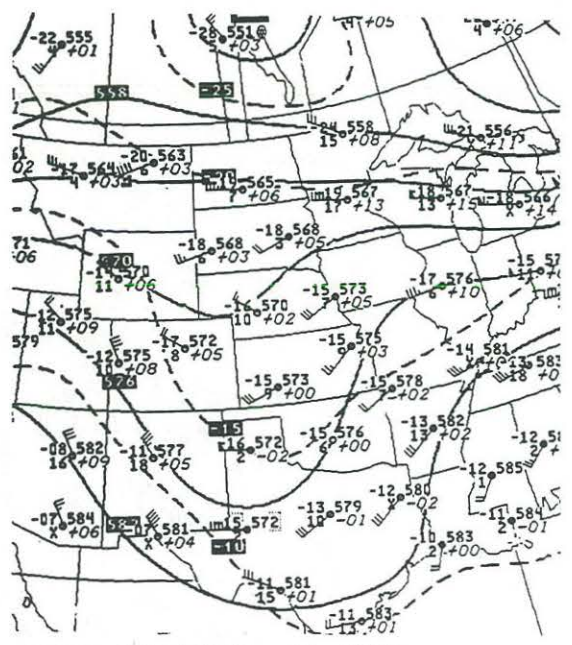
NO	TIME	EVENT	ST	LOCATION	
1	1818	4.50 INCH HAIL	TX	RALLS	(25 E LBB)
2	1825	TORNADO (F-2)	TX	7 WSW ACKERLY	(40 NE MAF)



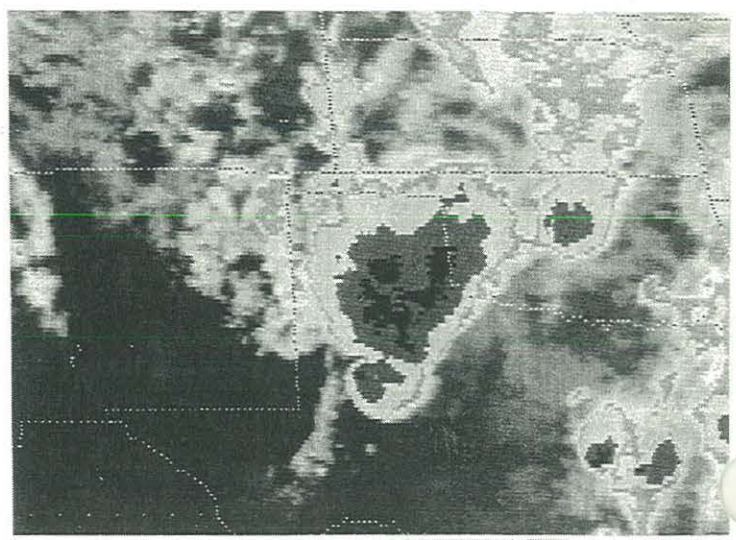
Composite 6PM CST May 7, 1991



Surface 6PM CST May 7, 1991



500MB 6PM CST May 7, 1991



GOES 5PM CST May 7, 1991

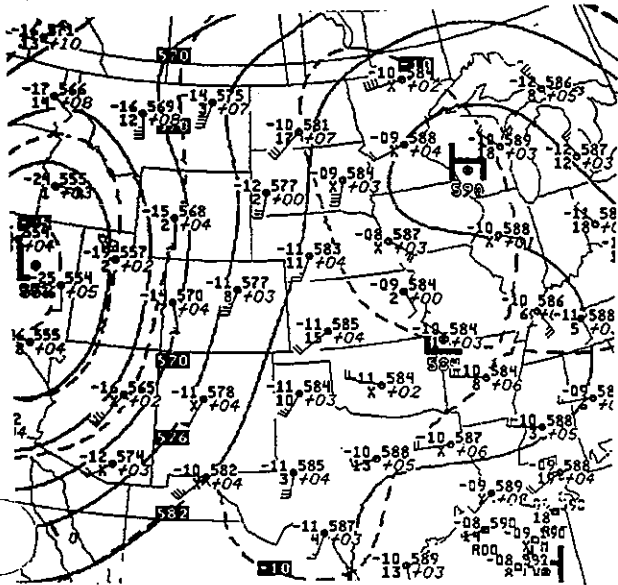


\*\*\* 62 SEVERE REPORTS \*\*\*

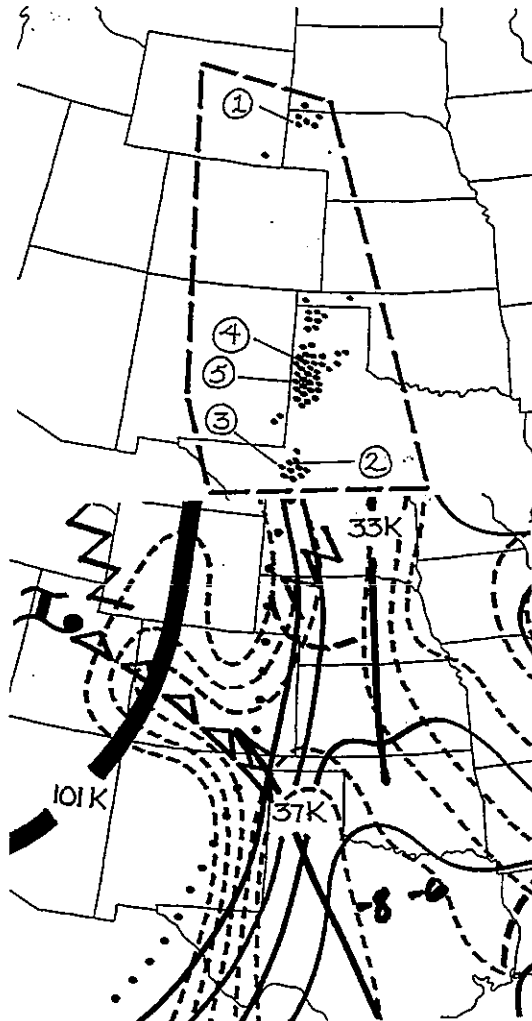
\*\*\* 15 TORNADOES \*\*\*

\*\*\* 1452-2250 CST \*\*\*

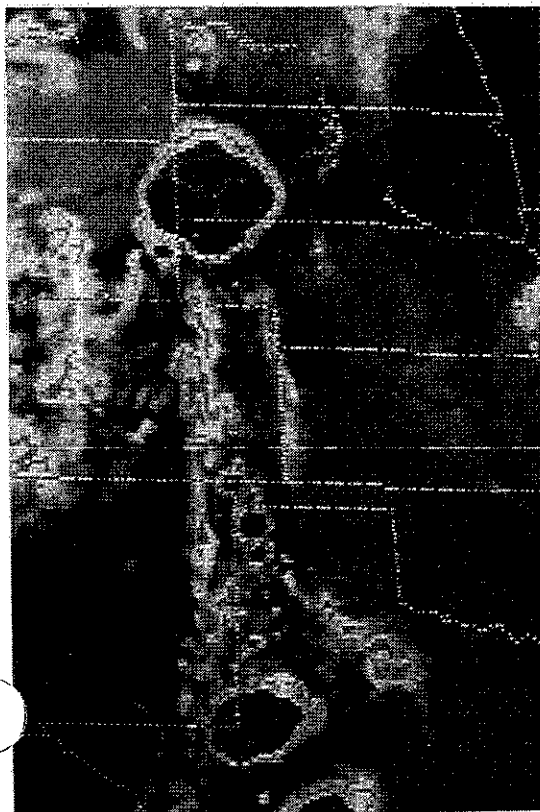
TIME	EVENT	ST	LOCATION	
1 1500	5.00 INCH HAIL	NE	2 N CRAWFORD	(17 WSW CDR)
2 1628	6.00 INCH HAIL	TX	PYOTE	(17 SSE INK)
3 1711	4.50 INCH HAIL	TX	3 E MONAHANS	(22 SE INK)
4 1822	TORNADO (F-3)	TX	PEP	(44 NNW LBB)
5 1842	TORNADO (F-2) one injury	TX	3 NW LAZBUDDIE	(39 E CVS)



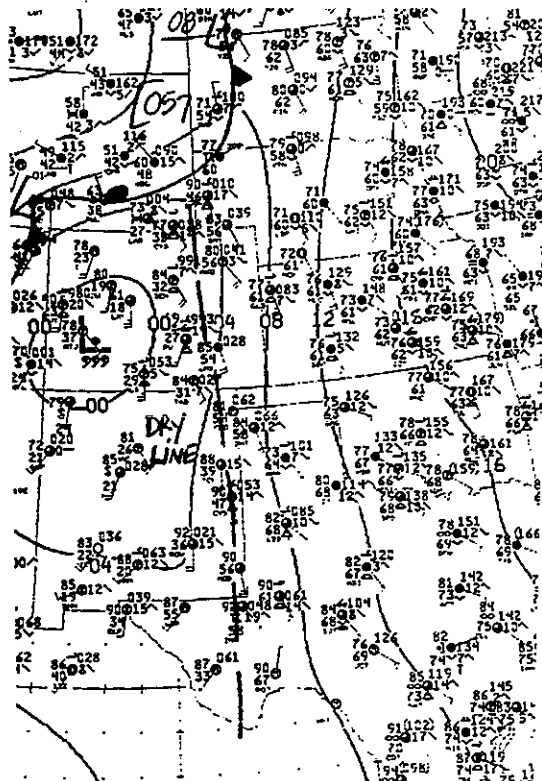
500MB 6PM CST May 10, 1991



Composite 6PM CST May 10, 1991



GOES 4PM CST May 10, 1991



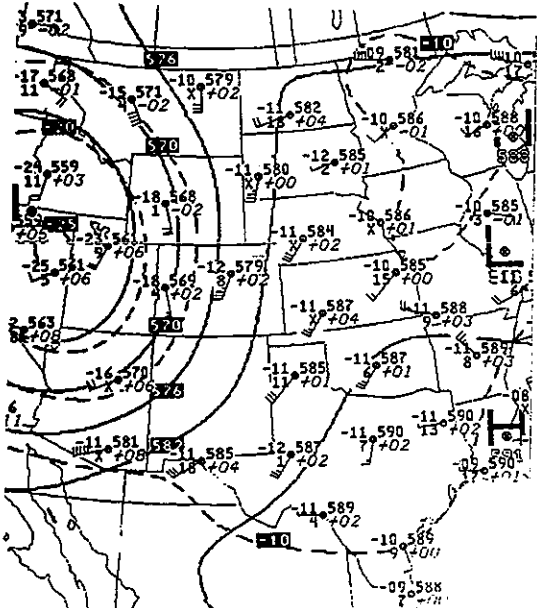
Surface 3PM CST May 10, 1991

\*\*\* 63 SEVERE REPORTS \*\*\*

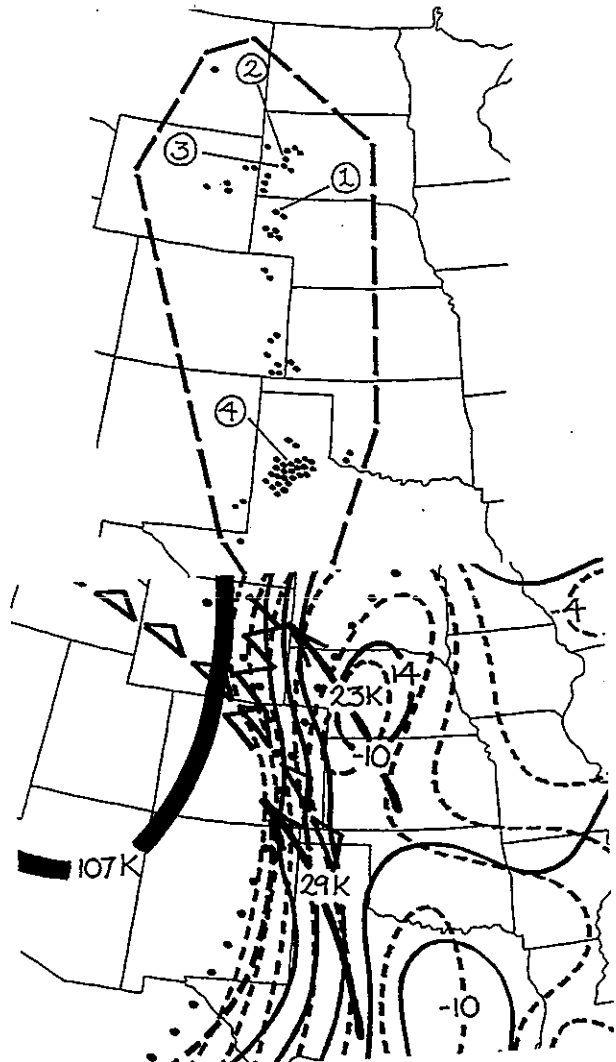
\*\*\* 20 TORNADOES \*\*\*

\*\*\* 1608-2320 CST \*\*\*

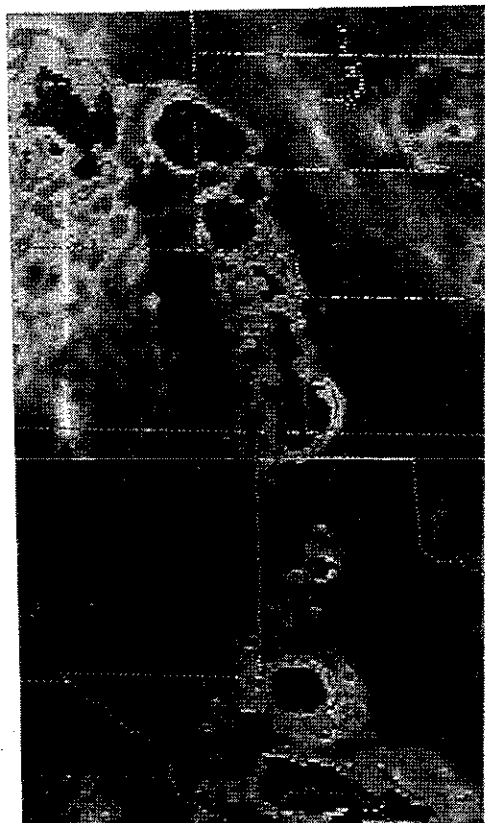
NO	TIME	EVENT	ST	LOCATION	
1	1735	3.75 INCH HAIL	NE	HEMINGFORD	(35 S CDR)
2	2010	TORNADO (F-2) five injuries, nine mobile homes destroyed	SD	WESTON HEIGHTS	( RAP)
3	2010	TORNADO (F-3) twenty injuries, 150 homes damaged, 13 homes destroyed	SD	NORTH RAPID CITY	( RAP)
4	2052	TORNADO (F-1) two injuries	TX	PLAINVIEW	( PVW)



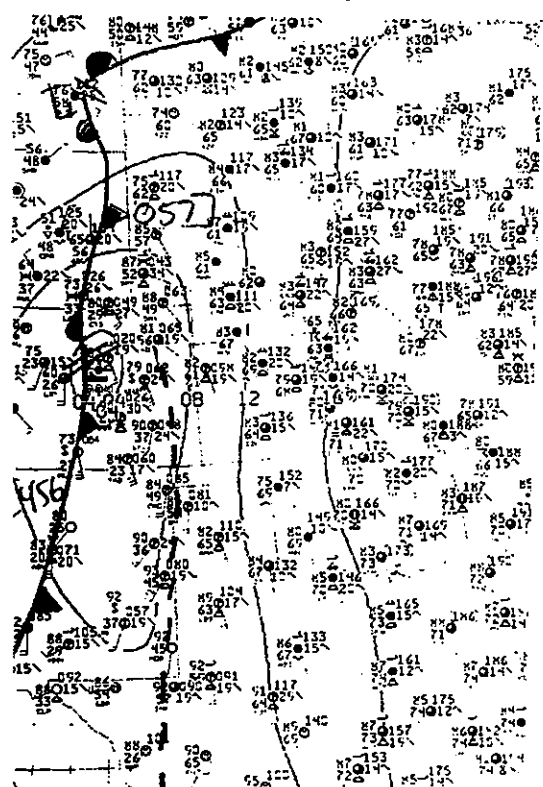
500MB 6PM CST May 11, 1991



Composite 6PM CST May 11, 1991



GOES 5PM CST May 11, 1991



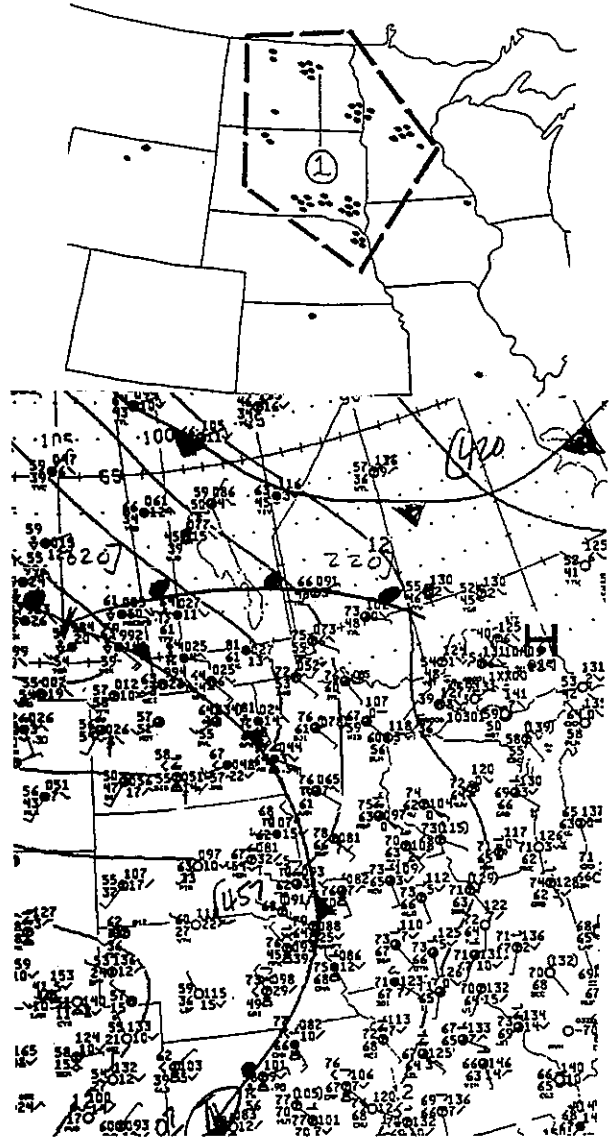
Surface 6PM CST May 11, 1991

\*\*\* 42 SEVERE REPORTS \*\*\*

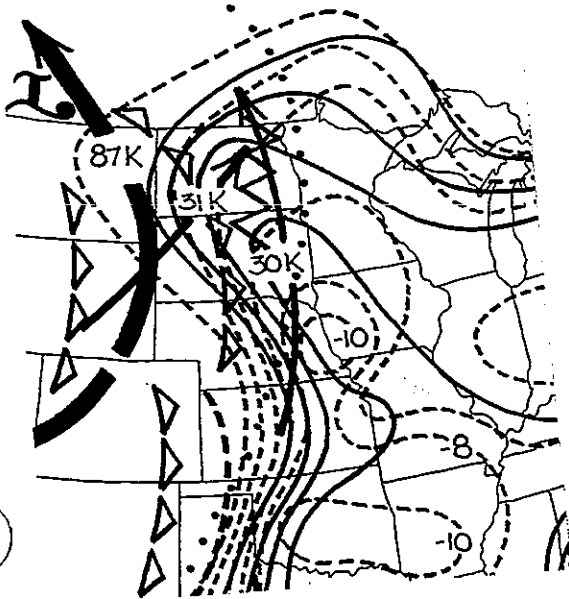
\*\*\* 4 TORNADOES \*\*\*

\*\*\* 1343-0006 CST \*\*\*

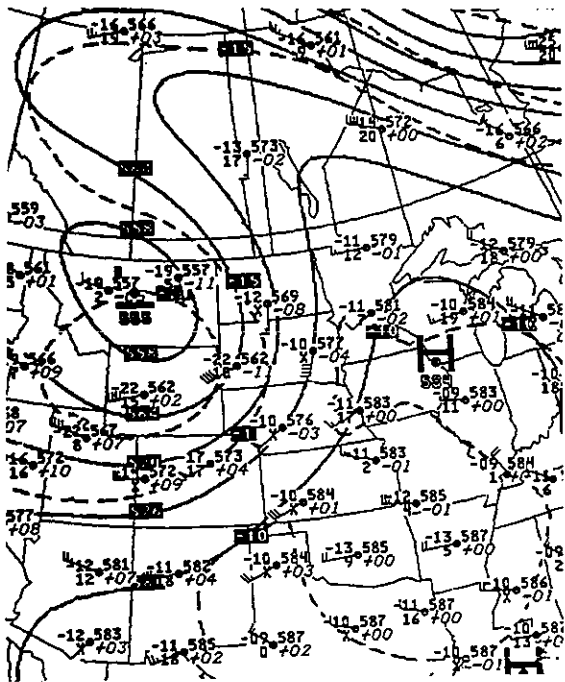
NO	TIME	EVENT	ST	LOCATION	(	DVL)
1	1928	95 MPH WIND GUST two injuries	ND	DEVILS LAKE	(	DVL)



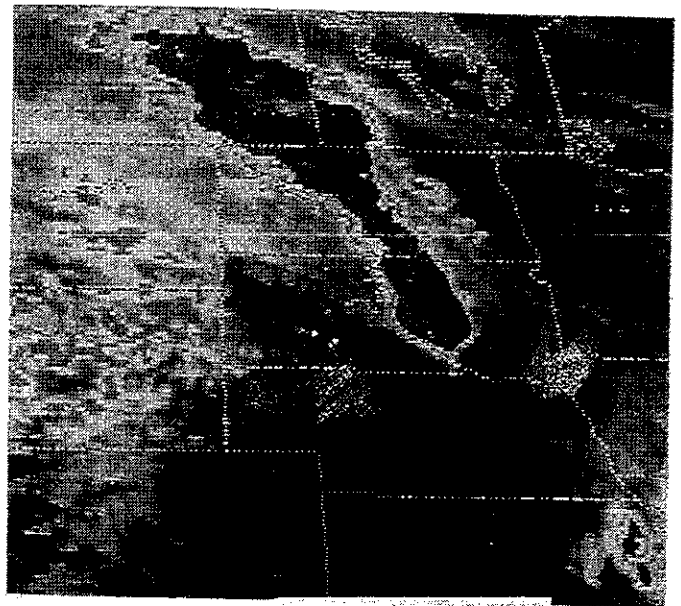
Surface 6PM CST May 12, 1991



Composite 6PM CST May 12, 1991



500MB 6PM CST May 12, 1991



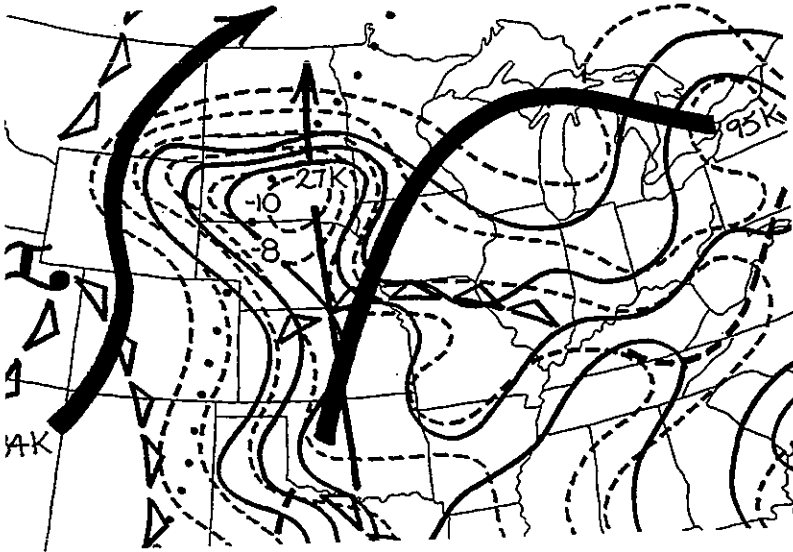
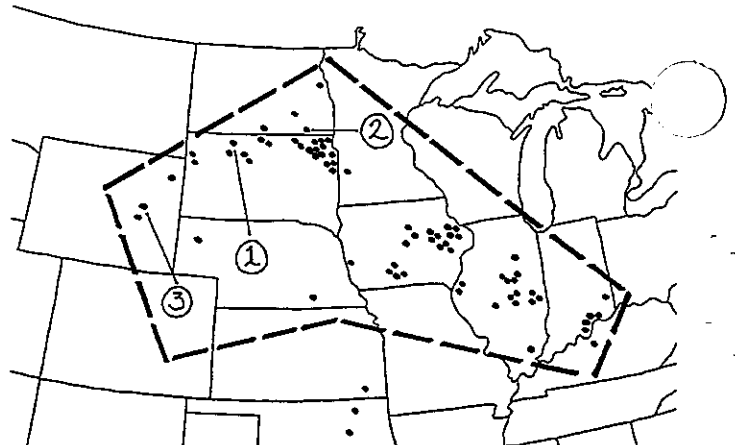
GOES 4PM CST May 12, 1991

\*\*\* 70 SEVERE REPORTS \*\*\*

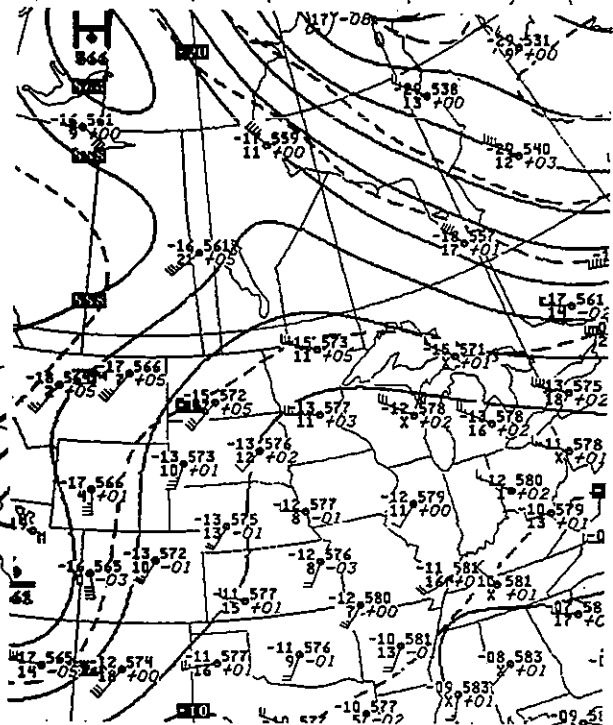
\*\*\* 5 TORNADOES \*\*\*

\*\*\* 0720-2315 CST \*\*\*

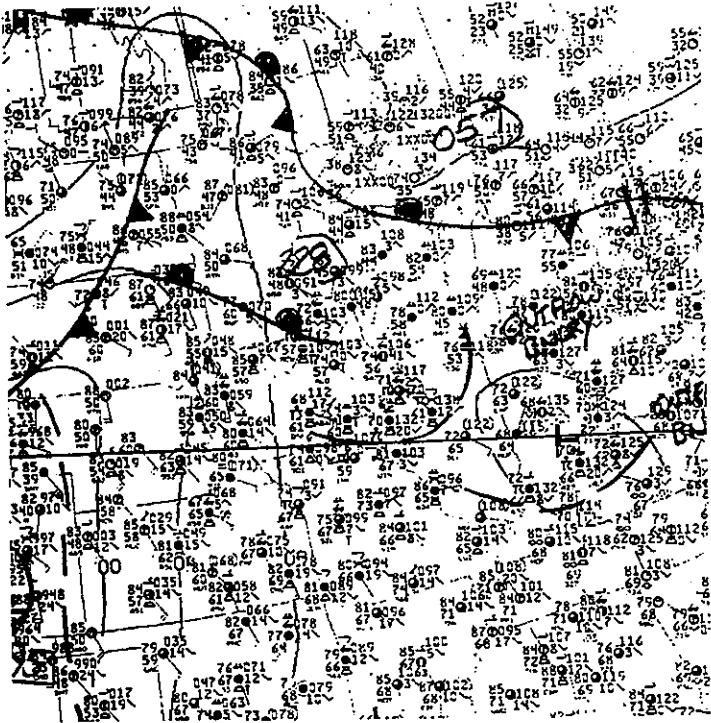
NO	TIME	EVENT	ST	LOCATION	
1	1750	2.00 INCH HAIL	SD	McINTOSH	(38 E Y22)
2	2030	2.00 INCH HAIL	ND	OAKES	(49 NNE ABR)
3	2115	2.50 INCH HAIL	WY	BILL	(33 N 4DG)



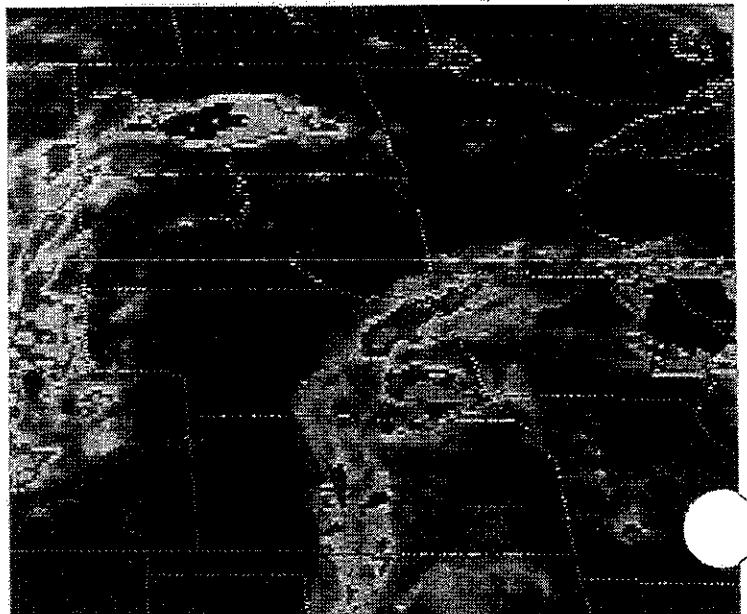
Composite 6PM CST May 14, 1991



500MB 6PM CST May 14, 1991



Surface 6PM CST May 14, 1991



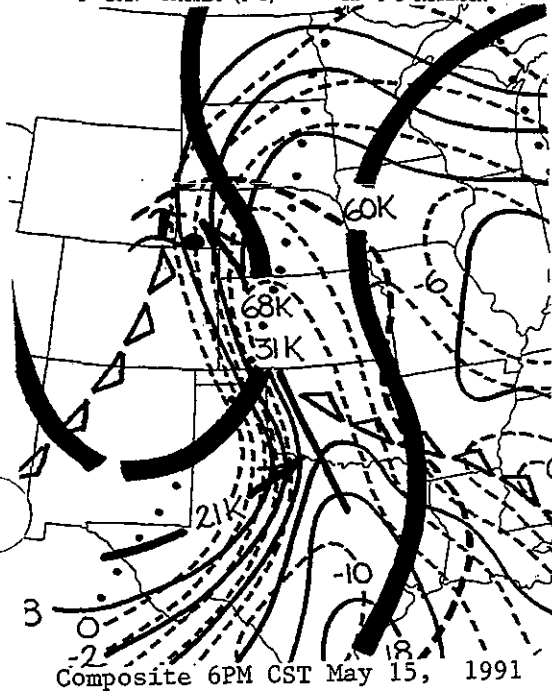
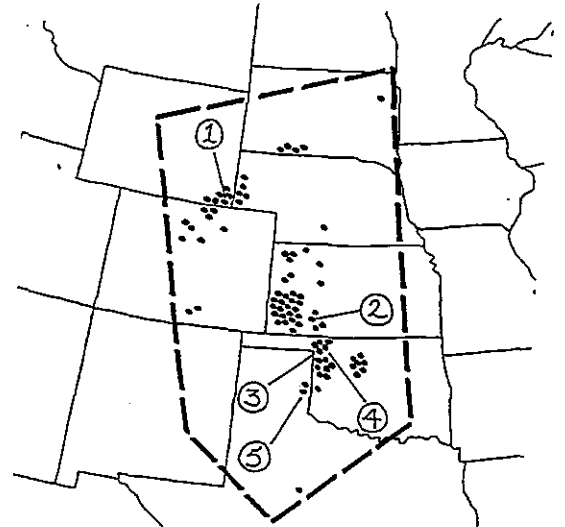
108 GOES 1PM CST May 14, 1991

\*\*\* 82 SEVERE REPORTS \*\*\*

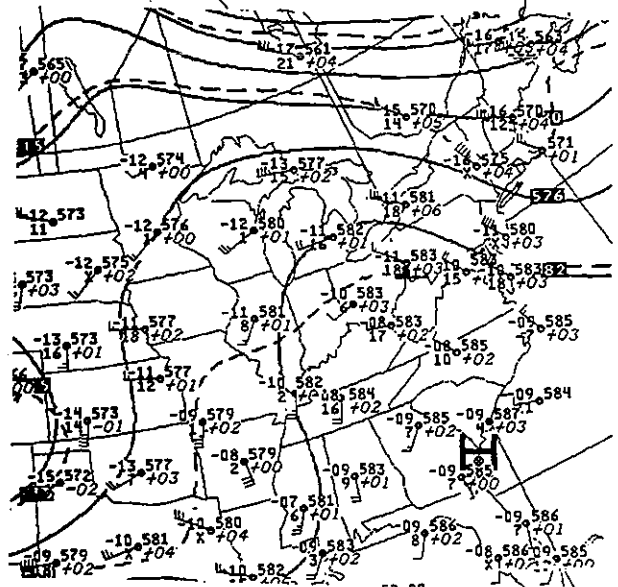
\*\*\* 33 TORNADOES \*\*\*

\*\*\* 1245-0220 CST \*\*\*

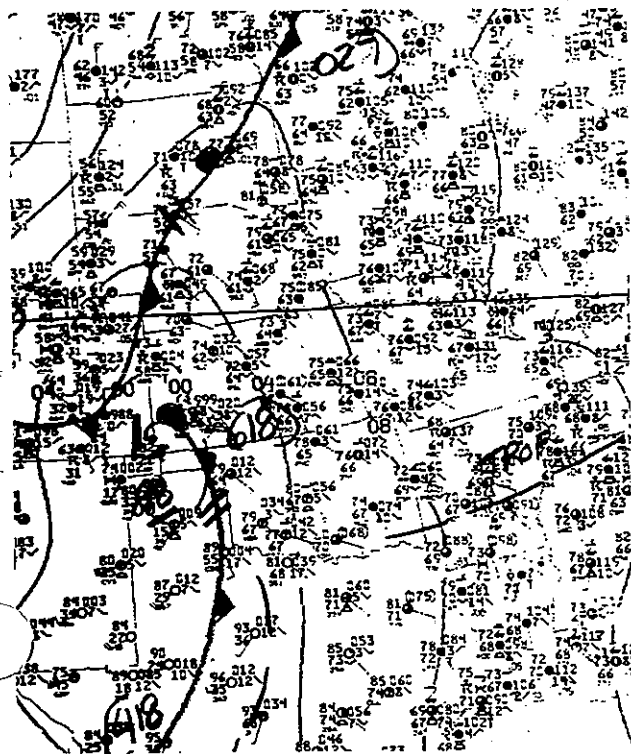
NO	TIME	EVENT	ST	LOCATION	
1	1630	3.50 INCH HAIL	WY	7 E CHEYENNE	( 3 ESE CYS)
2	1921	87 MPH WIND GUST	KS	MINNEOLA	(23 S DDC)
3	1935	TORNADO (F-3) three injuries	OK	LAVERNE	(29 NNW GAG)
4	1945	4.00 INCH HAIL	OK	3 SW LAVERNE	(28 NNW GAG)
5	2017	TORNADO (F-3)	TX	9 S SHAMROCK	(45 N CDS)



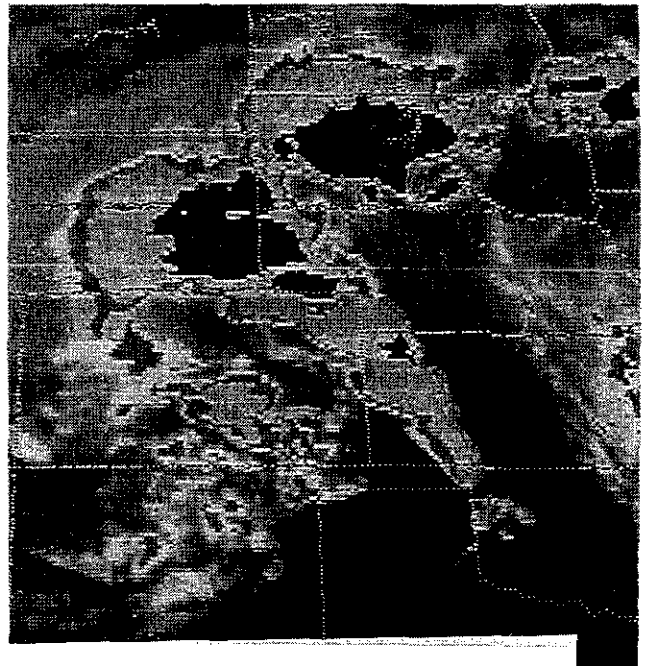
Composite 6PM CST May 15, 1991



500MB 6PM CST May 15, 1991



Surface 6PM CST May 15, 1991



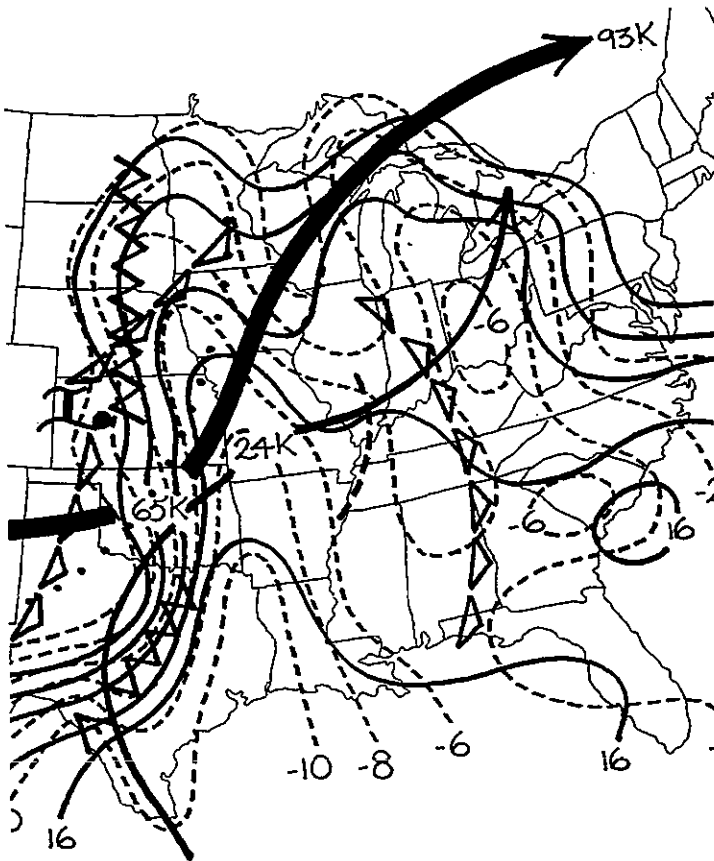
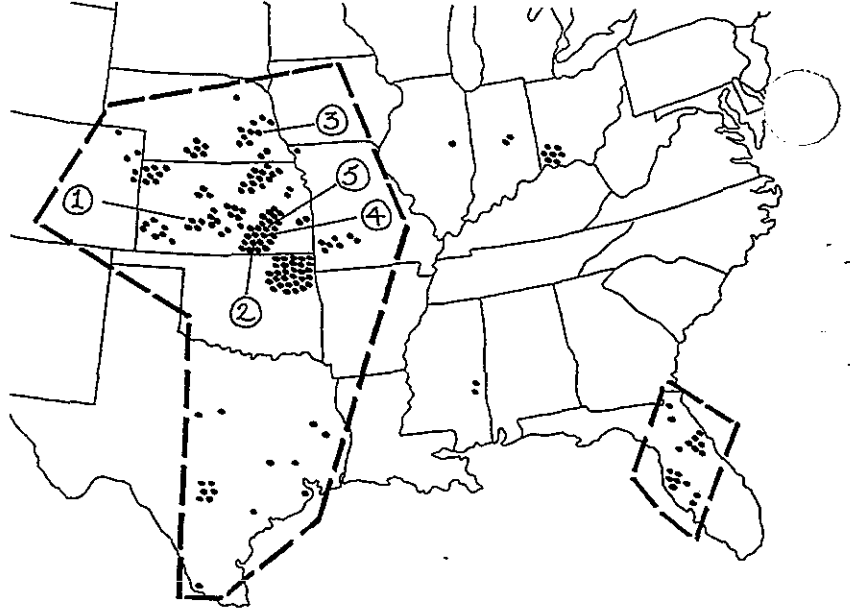
GOES 7PM CST May 15, 1991

\*\*\* 151 SEVERE REPORTS \*\*\*

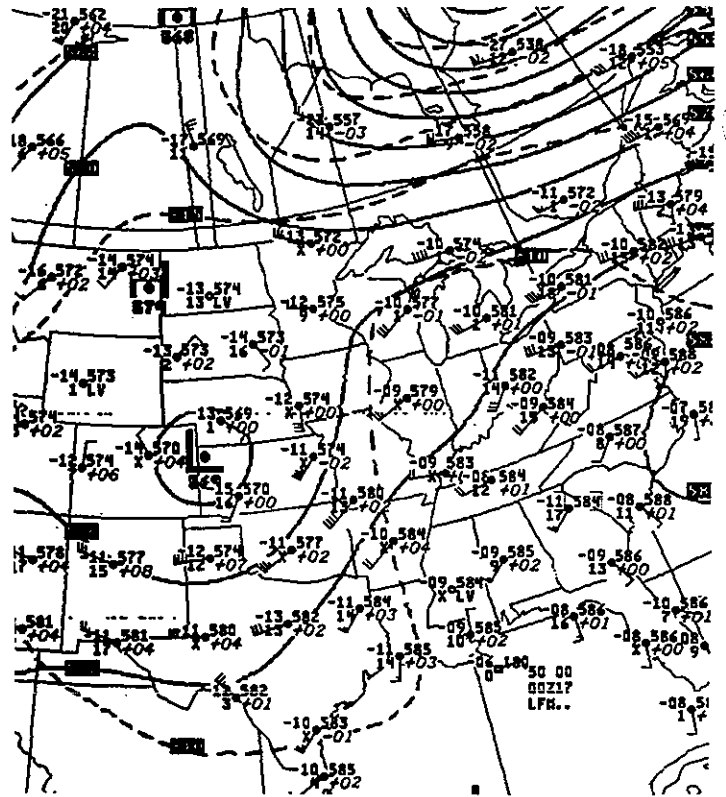
\*\*\* 44 TORNADOES \*\*\*

\*\*\* 0615-2235 CST \*\*\*

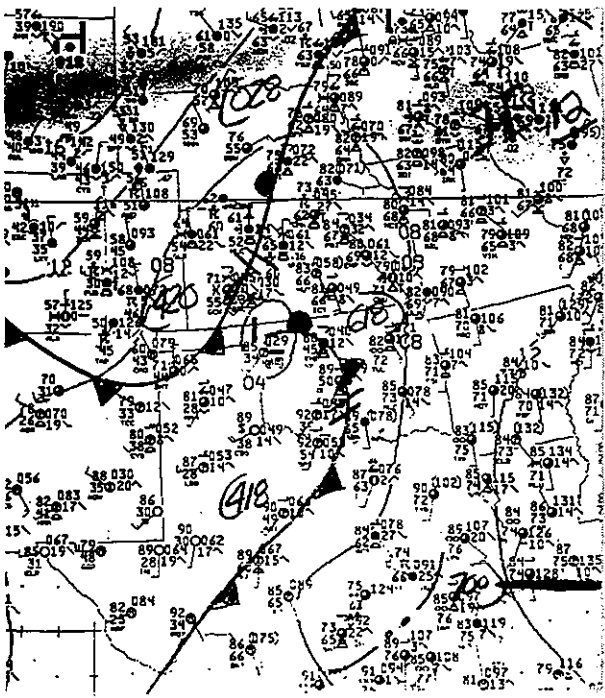
NO	TIME	EVENT	ST	LOCATION	
1	1347	TORNADO (F-3) two injuries, 22 mile path length	KS	23 SW JETHORE	(30 WNW DDC)
2	1625	TORNADO (F-3) one million dollars damage path nearly the same as April 26th tornado	KS	WICHITA	( IAB)
3	1643	TORNADO (F-2)	NE	8 SW SEWARD	(18 W INK)
4	1700	4.00 INCH HAIL	KS	WICHITA	( 6 ENE ICT)
5	1752	4.00 INCH HAIL	KS	EL DORADO	(32 ENE ICT)



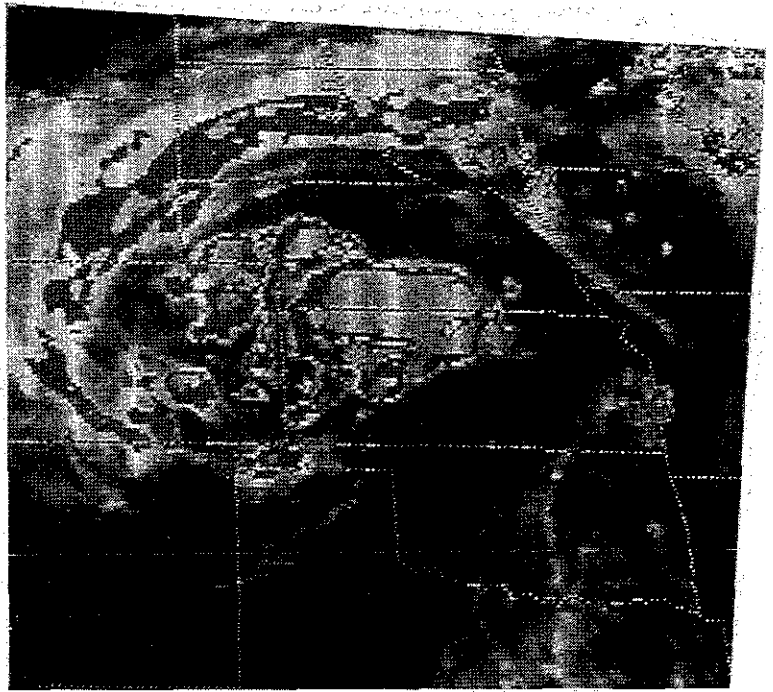
Composite 6PM CST May 16, 1991



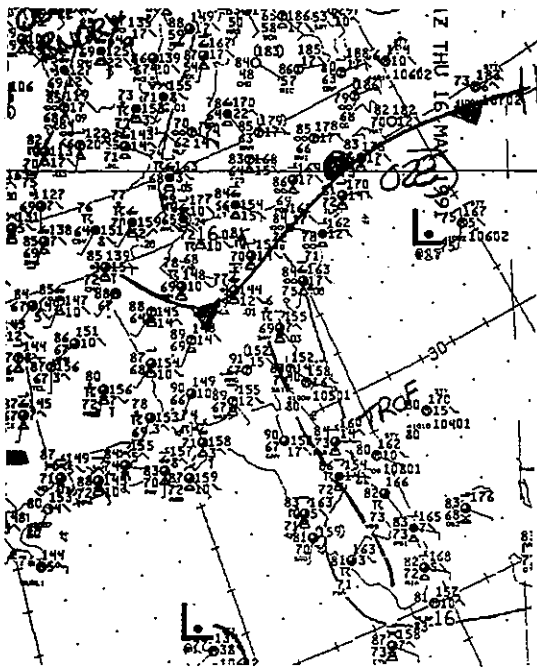
500MB 6PM CST May 16, 1991



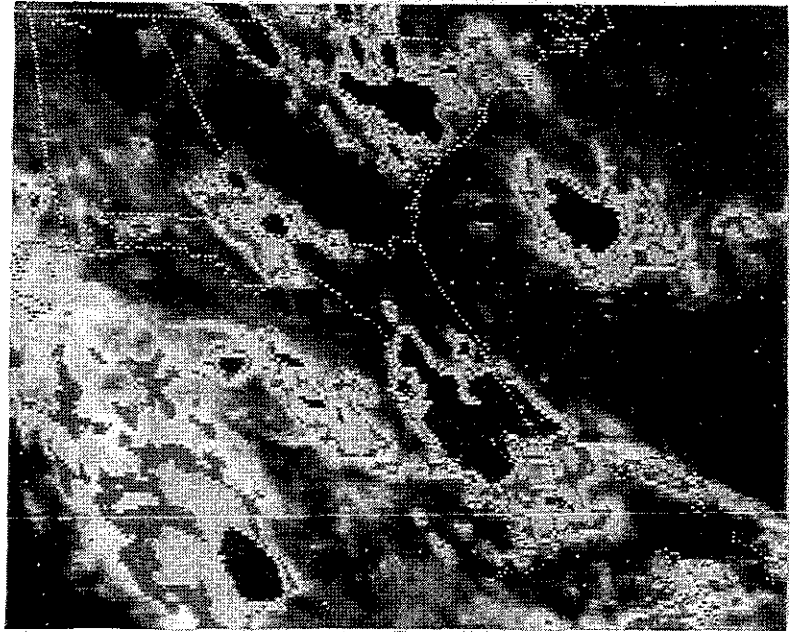
Surface 3PM CST May 16, 1991



GOES 2PM CST May 16, 1991



Surface 3PM CST May 16, 1991



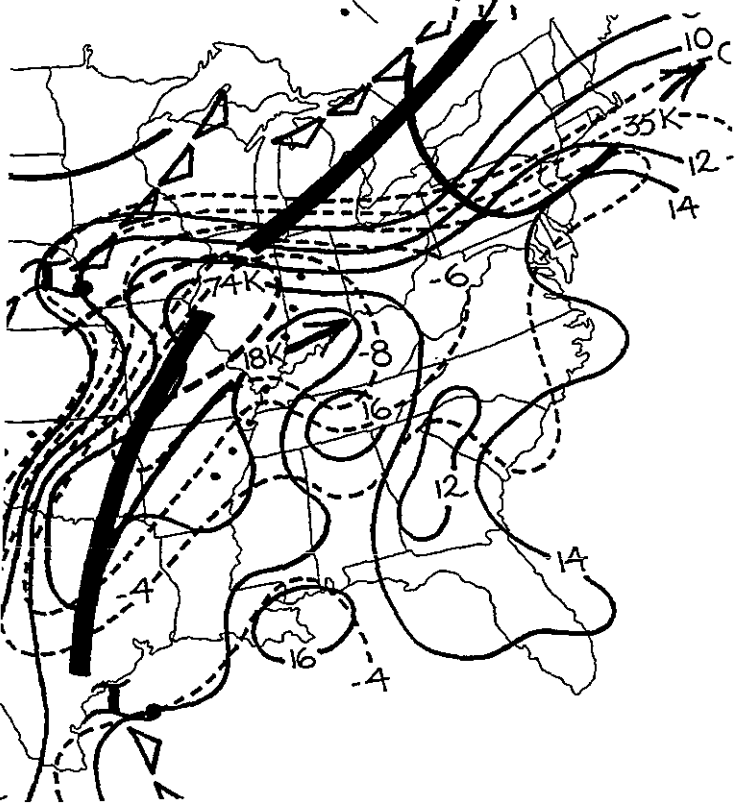
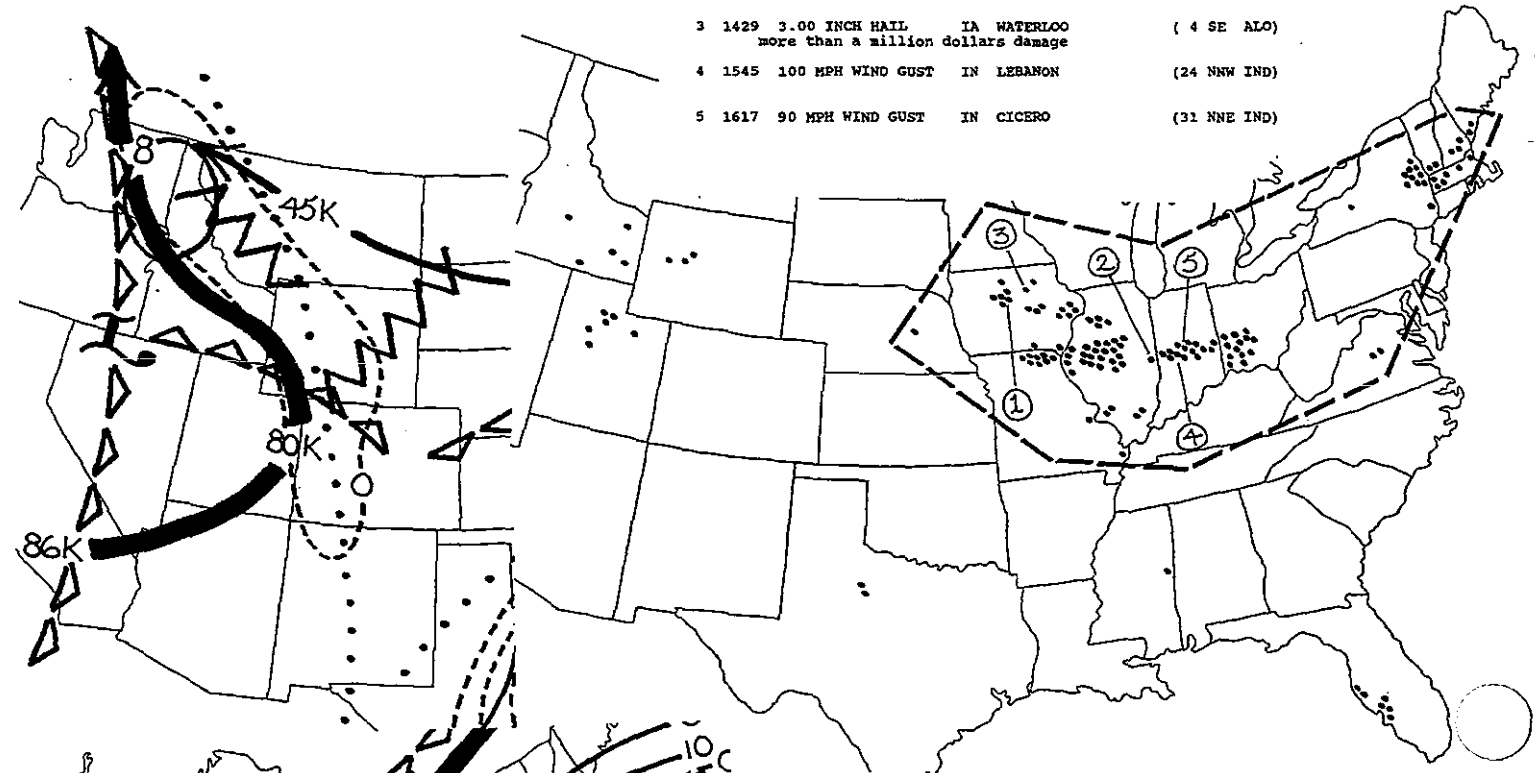
GOES 3PM CST May 16, 1991

\*\*\* 113 SEVERE REPORTS \*\*\*

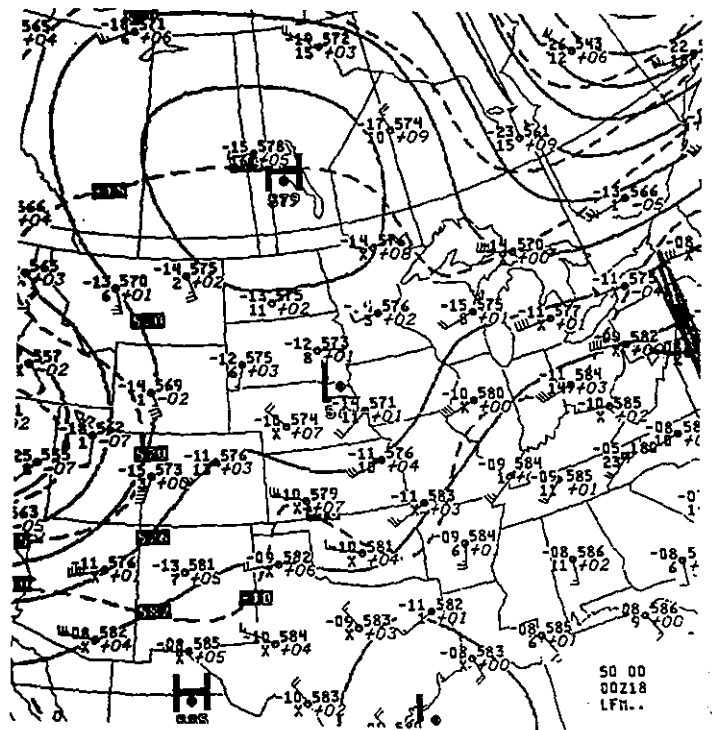
\*\*\* 9 TORNADOES \*\*\*

\*\*\* 1045-2250 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1300	TORNADO (F-2)	IA	7 E WEBSTER CITY	(19 ESE FOD)
2	1358	2.75 INCH HAIL	IL	OAKWOOD	(11 WSW DNV)
3	1429	3.00 INCH HAIL more than a million dollars damage	IA	WATERLOO	( 4 SE ALO)
4	1545	100 MPH WIND GUST	IN	LEBANON	(24 NNW IND)
5	1617	90 MPH WIND GUST	IN	CICERO	(31 NNE IND)



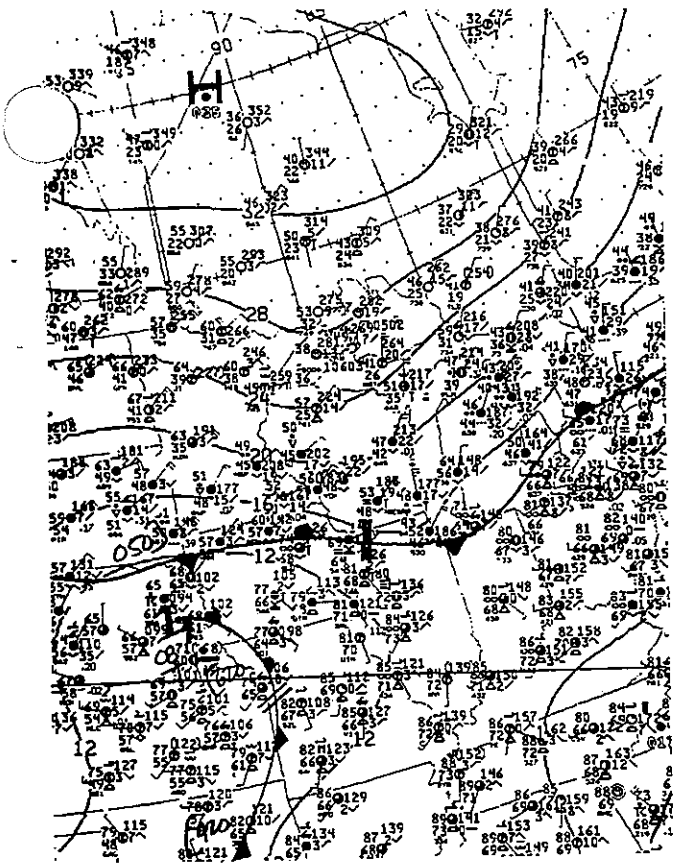
Composite 6PM CST May 17, 1991



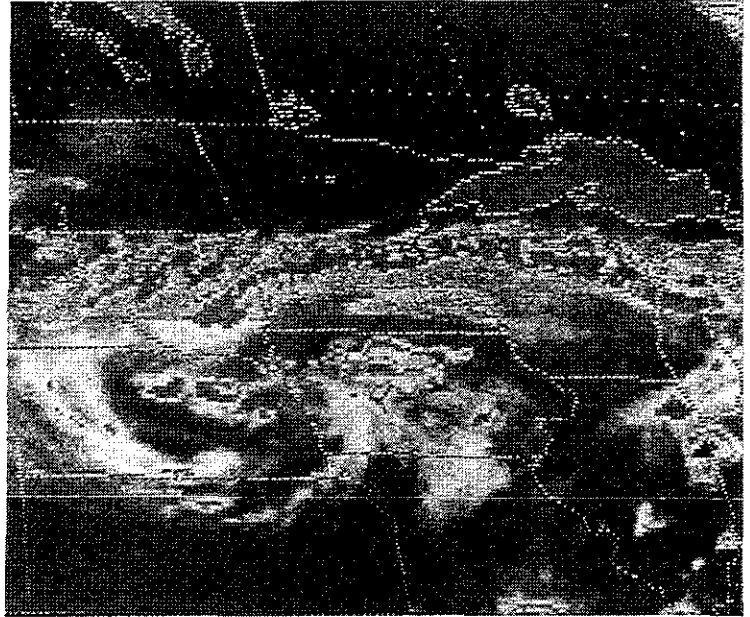
112 500MB 6PM CST May 17, 1991

50 00  
00218  
LFH..

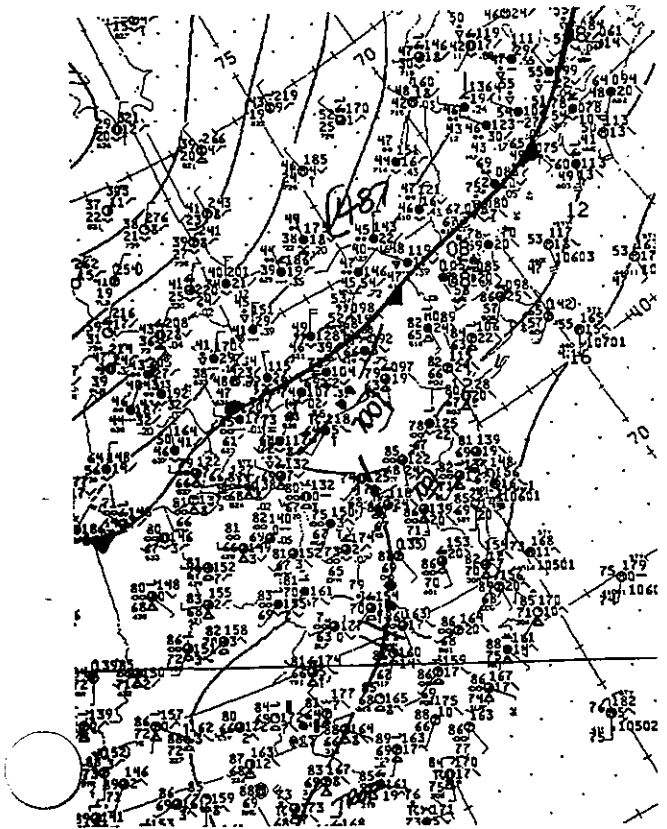




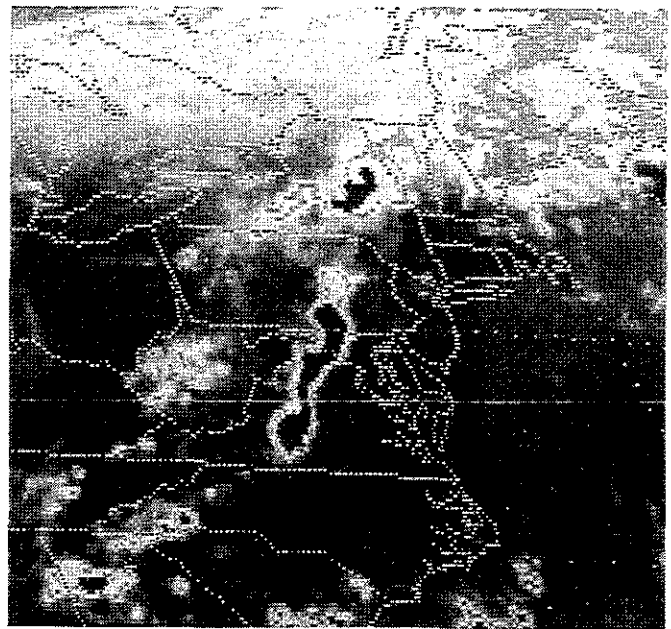
Surface 12 Noon CST May 17, 1991



GOES 1PM CST May 17, 1991



Surface 12 Noon CST May 17, 1991



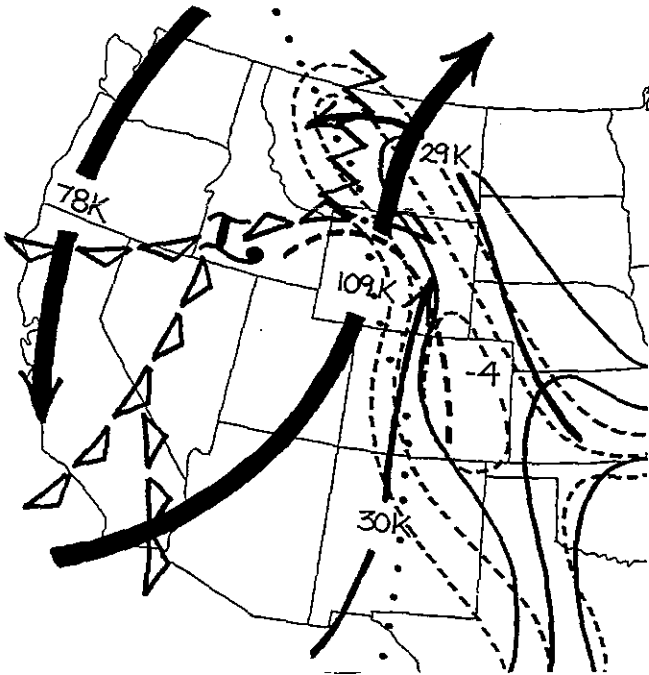
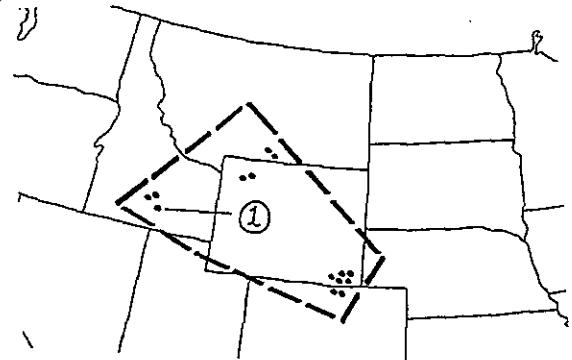
GOES 1PM CST May 17, 1991

\*\*\* 14 SEVERE REPORTS \*\*\*

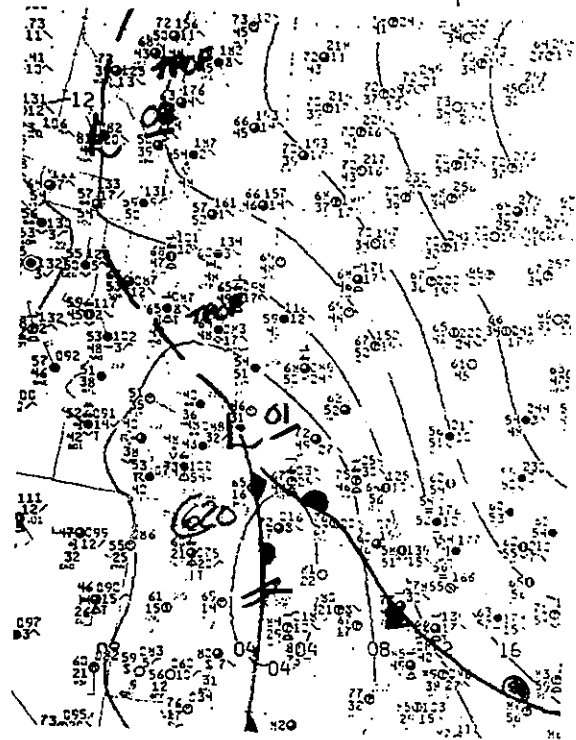
\*\*\* 3 TORNADOES \*\*\*

\*\*\* 1545-2057 CST \*\*\*

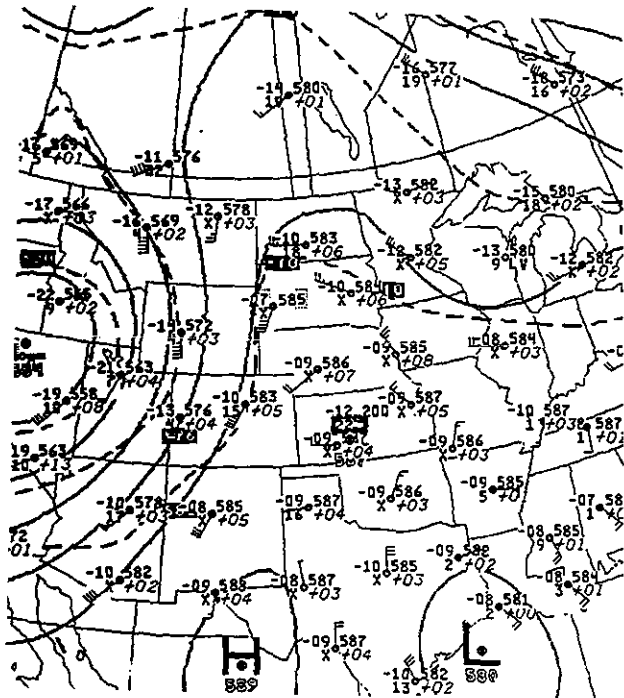
NO	TIME	EVENT	ST	LOCATION	
1	1536	TORNADO (F-2)	ID	RUPERT	(7 NE BYI)



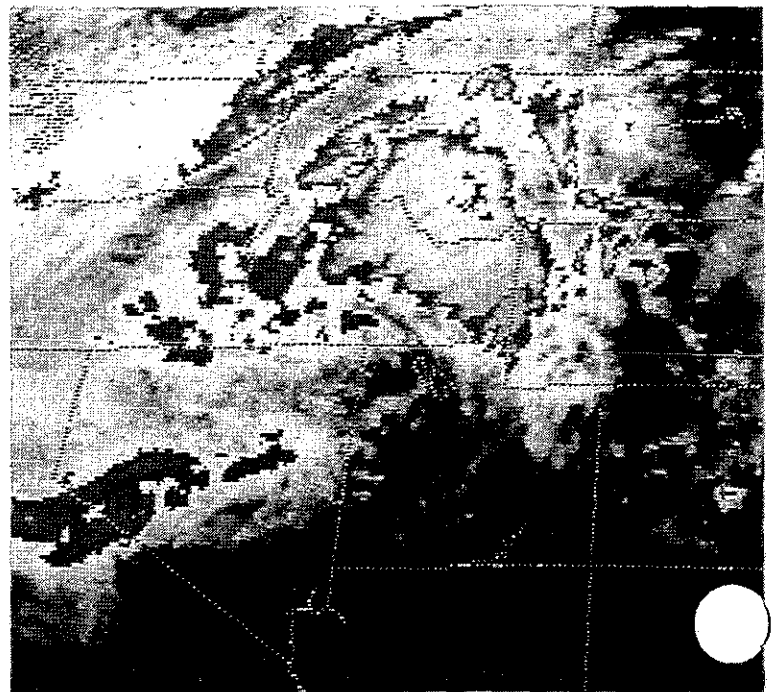
Composite 6PM CST May 18, 1991



Surface 3PM CST May 18, 1991



500MB 6PM CST May 18, 1991



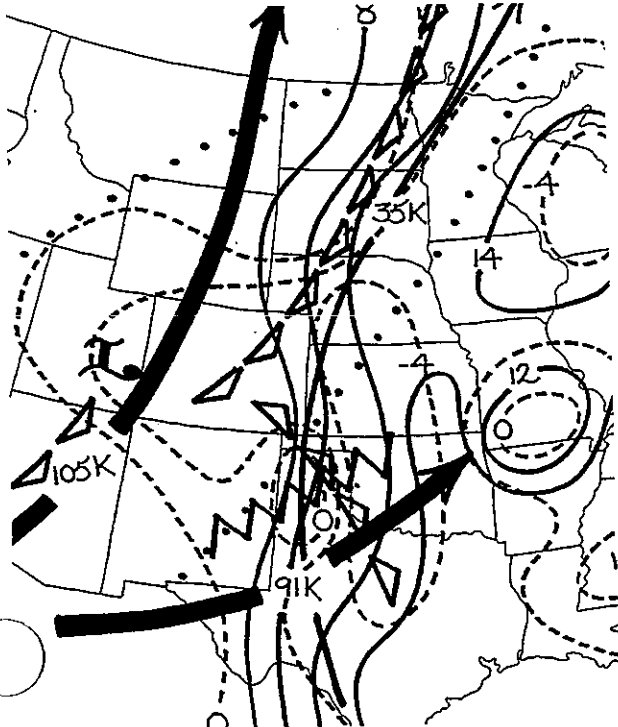
114 GOES 3PM CST May 18, 1991,

\*\*\* 34 SEVERE REPORTS \*\*\*

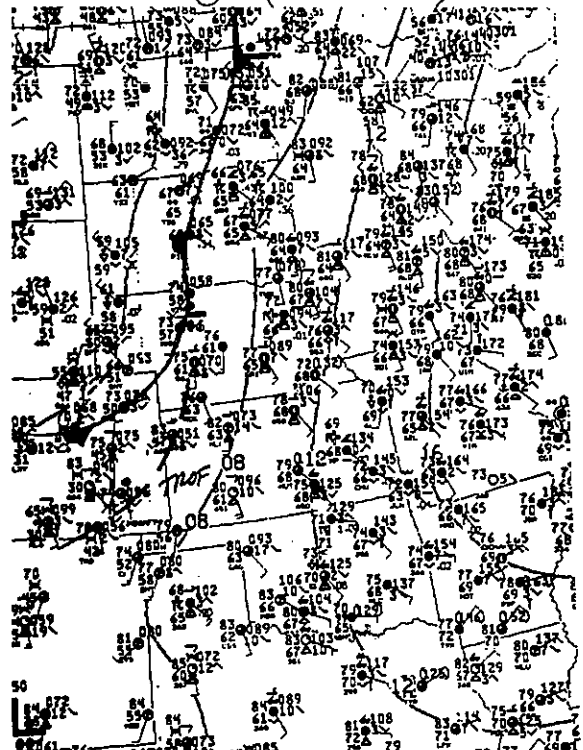
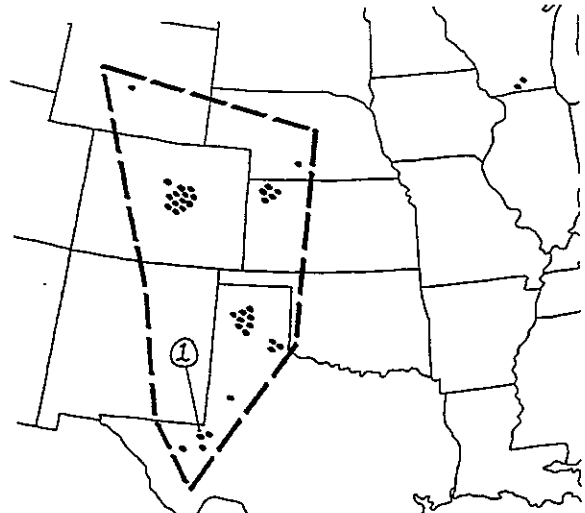
\*\*\* 10 TORNADOES \*\*\*

\*\*\* 1700-0115 CST \*\*\*

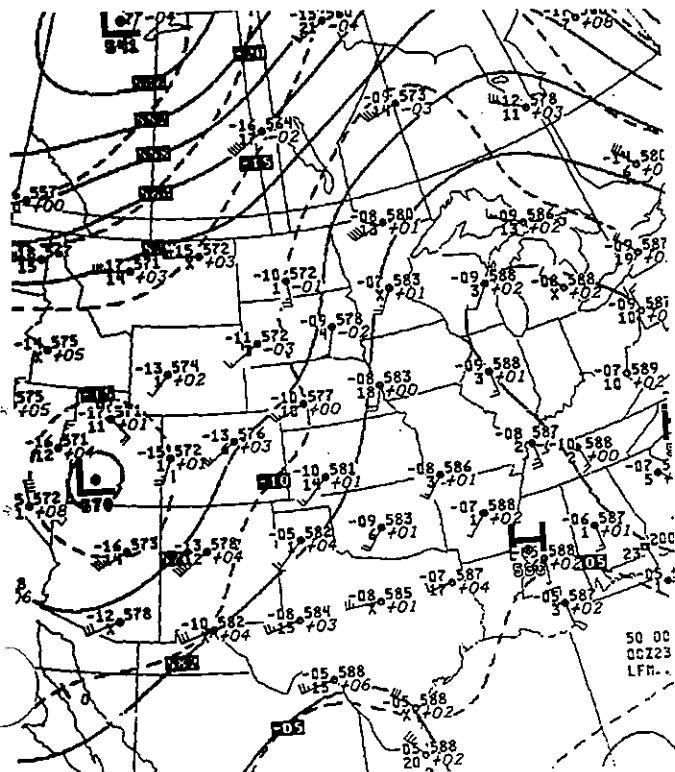
NO	TIME	EVENT	ST	LOCATION
1	1742	2.50 INCH HAIL 70 MPH WIND GUST	TX	PYOTE (17 SSE INK)



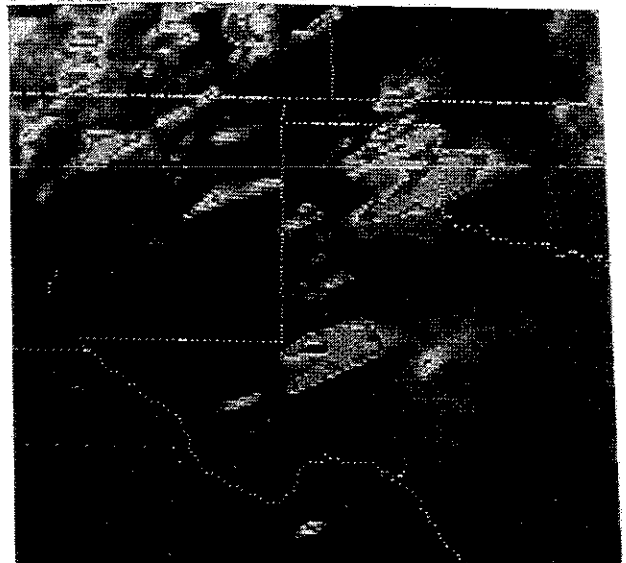
Composite 6PM CST May 22, 1991



Surface 6PM CST May 22, 1991



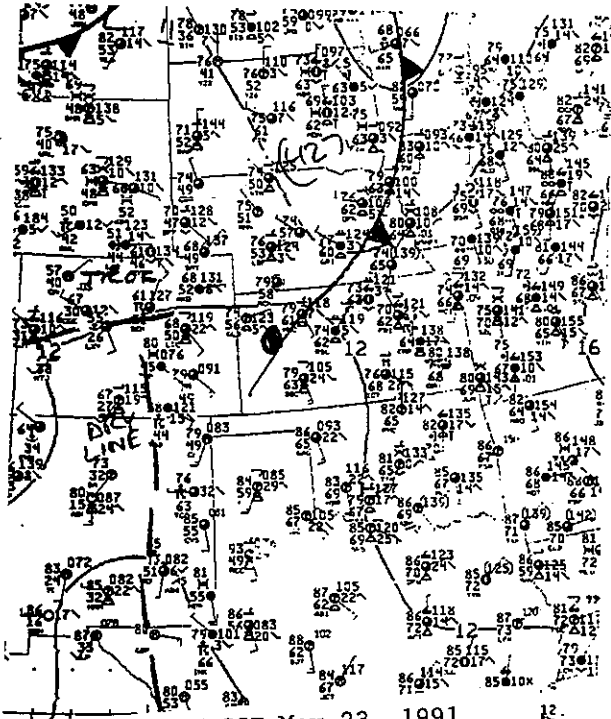
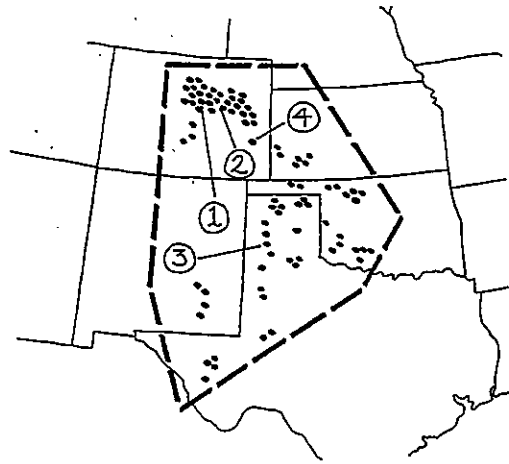
500MB 6PM CST May 22, 1991



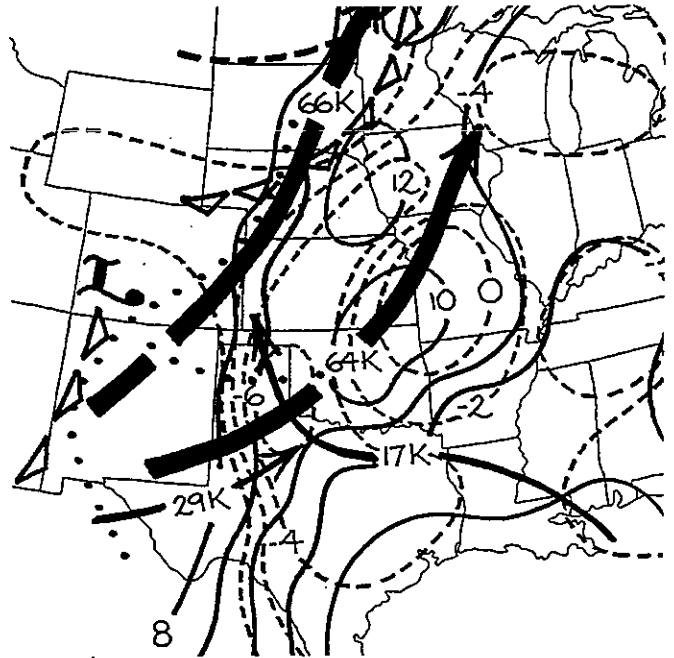
6000-6PM CST May 22, 1991

\*\*\* 63 SEVERE REPORTS \*\*\*  
 \*\*\* 4 TORNAOES \*\*\*  
 \*\*\* 1315-2340 CST \*\*\*

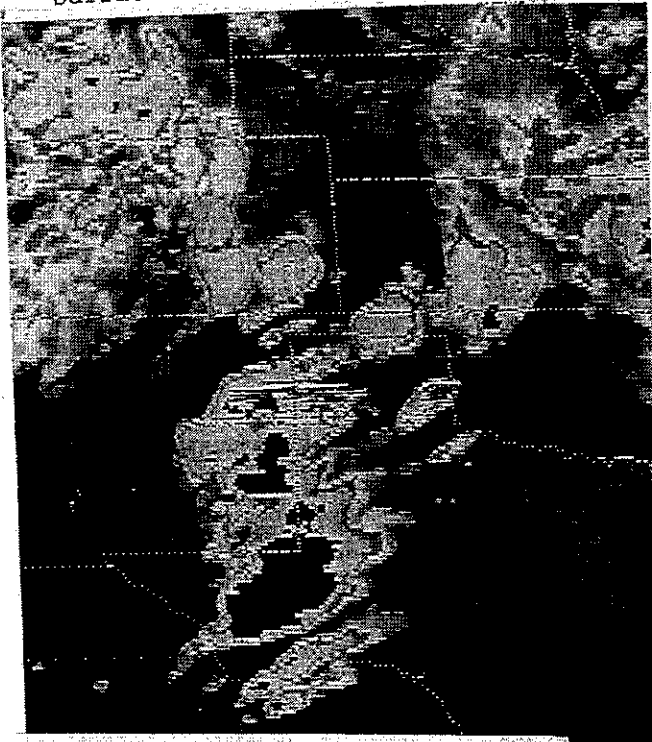
NO	TIME	EVENT	ST	LOCATION	
1	1415	2.50 INCH HAIL sixty million dollars damage	CO	SE DENVER	(3 SW DEN)
2	1443	2.75 INCH HAIL	CO	STRASBURG	(30 E DEN)
3	1650	80 MPH WIND GUST	TX	8 S DIMMITT	(38 NNW PVW)
4	1710	85 MPH WIND GUST	CO	15 S WILD HORSE	(38 NNW 4LJ)



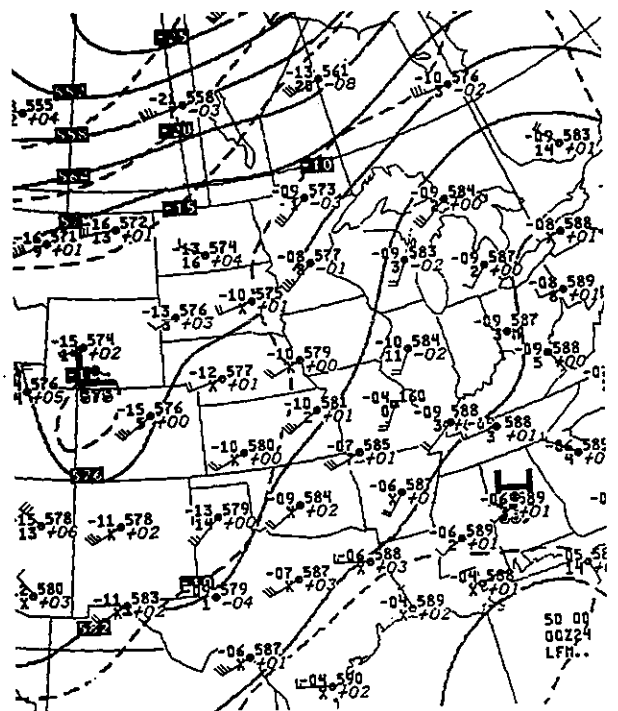
Surface 3PM CST May 23, 1991



Composite 6PM CST May 23, 1991



GOES 3PM CST May 23, 1991



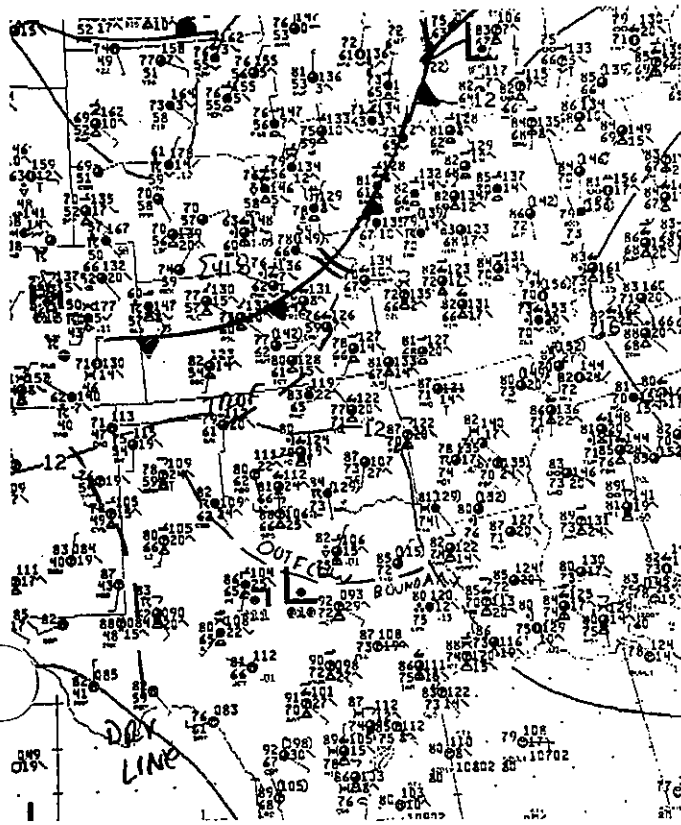
500MB 6PM CST May 23, 1991

\*\*\* 72 SEVERE REPORTS \*\*\*

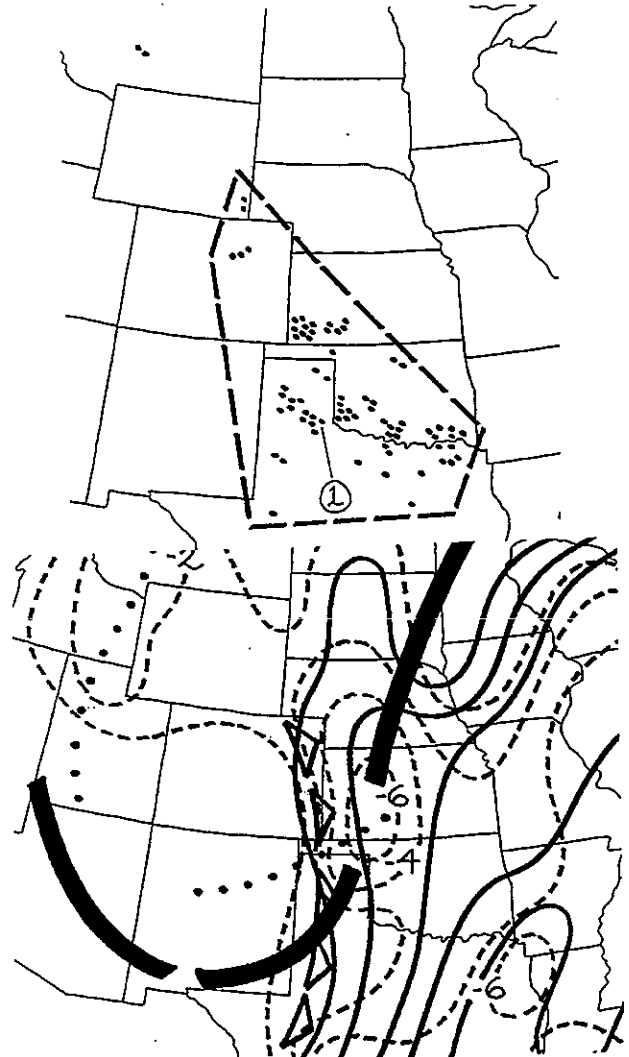
\*\*\* 3 TORNADOES \*\*\*

\*\*\* 1120-2240 CST \*\*\*

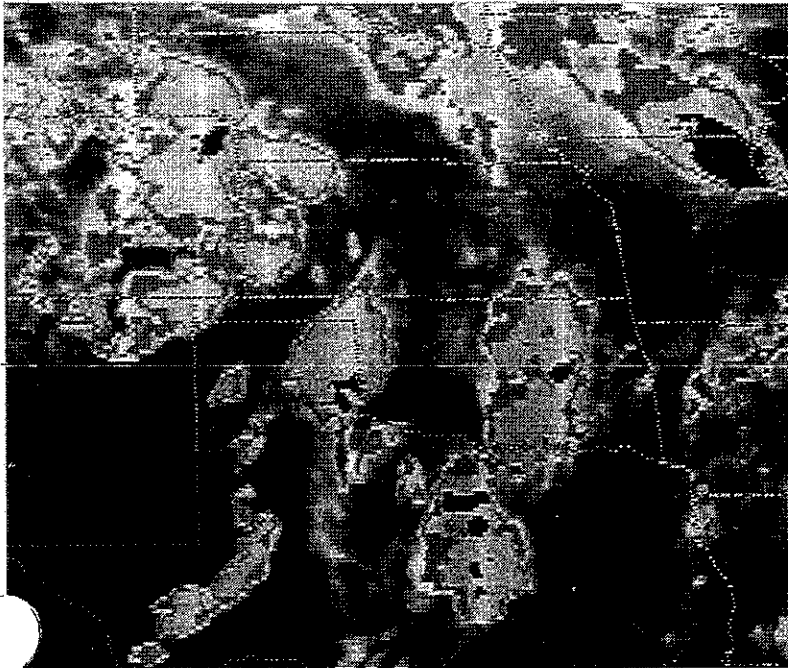
NO	TIME	EVENT	ST	LOCATION
1	1530	2.75 INCH HAIL	TX	ESTELLINE (12 NW CDS)



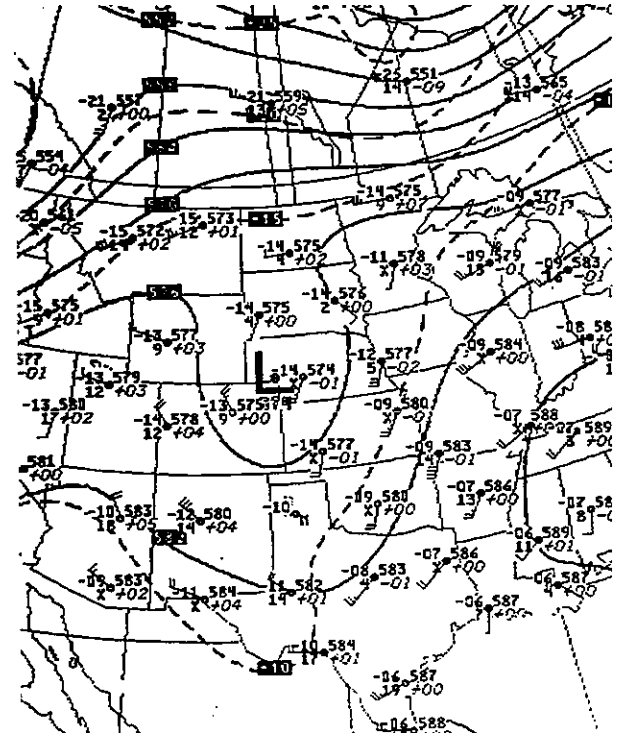
Surface 3PM CST May 24, 1991



Composite 6PM CST May 24, 1991



GOES 4PM CST May 24, 1991



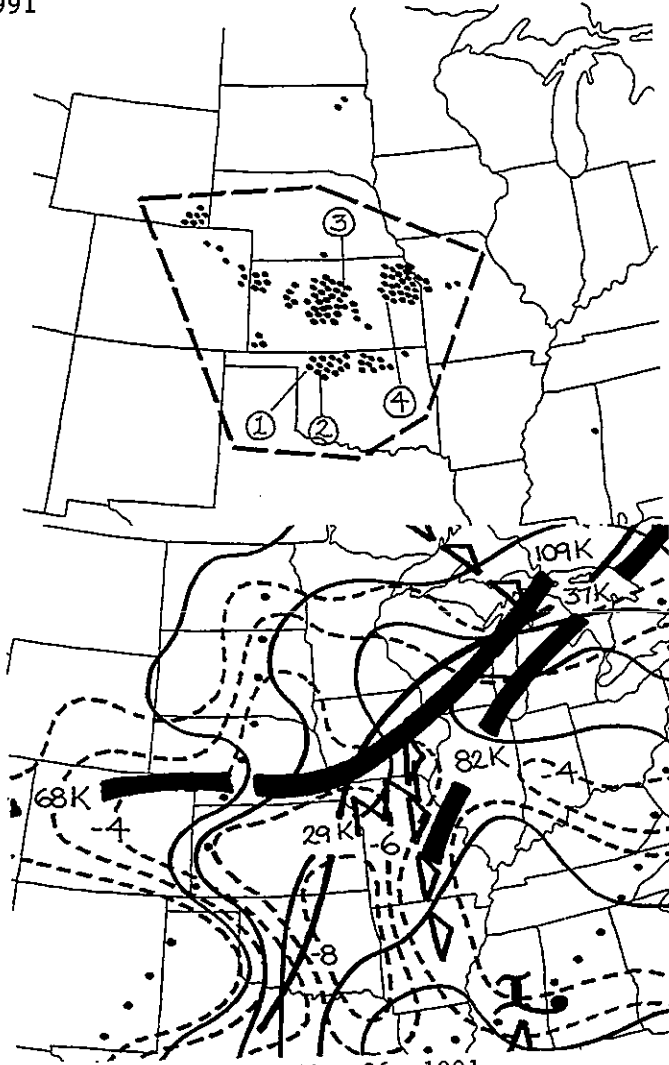
500MB 6PM CST May 24, 1991

\*\*\* 113 SEVERE REPORTS \*\*\*

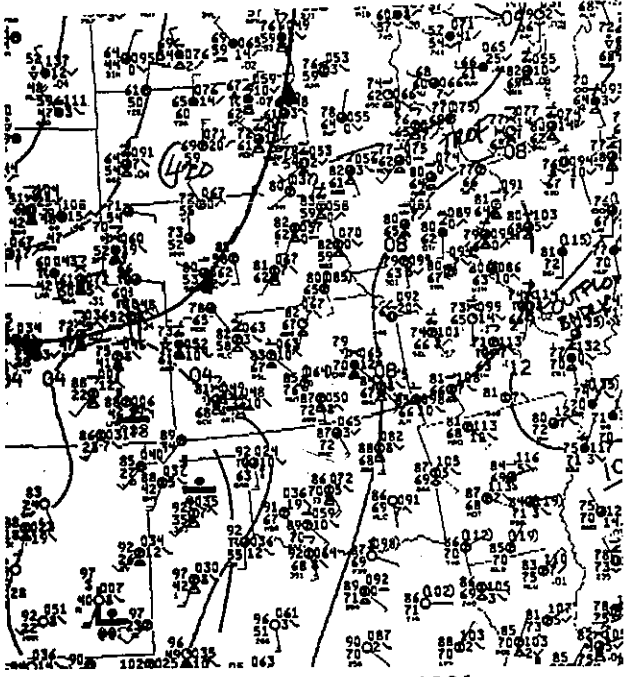
\*\*\* 10 TORNADES \*\*\*

\*\*\* 0750-0330 CST \*\*\*

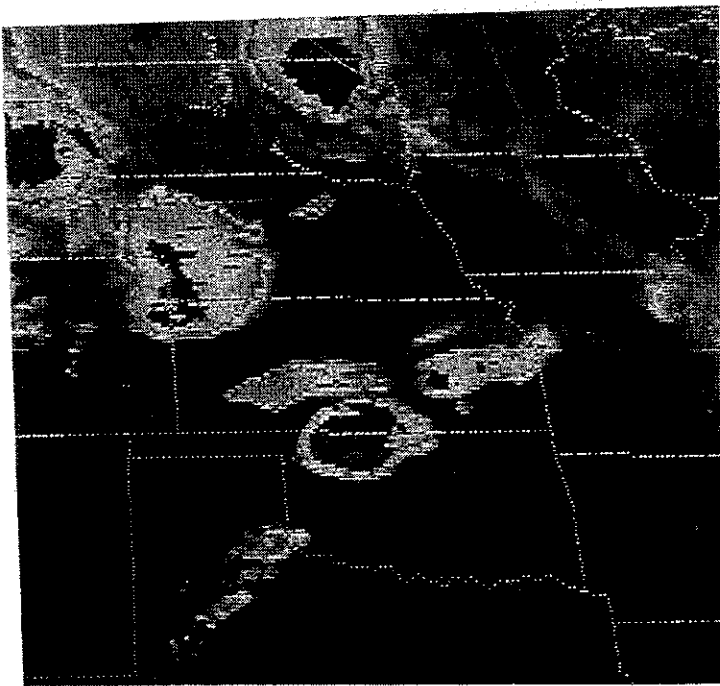
NO	TIME	EVENT	ST	LOCATION	
1	1758	TORNADO (F-3)	OK	3 E WOODWARD	(25 ENE GAG)
2	1806	4.00 INCH HAIL	OK	MOORELAND	(32 ENE GAG)
3	2324	70 MPH WIND GUST twelve injuries	KS	LAKE WILSON	(20 ENE RSL)
4	0215	94 MPH WIND GUST	KS	COUNCIL GROVE RES	(30 NW EMP)



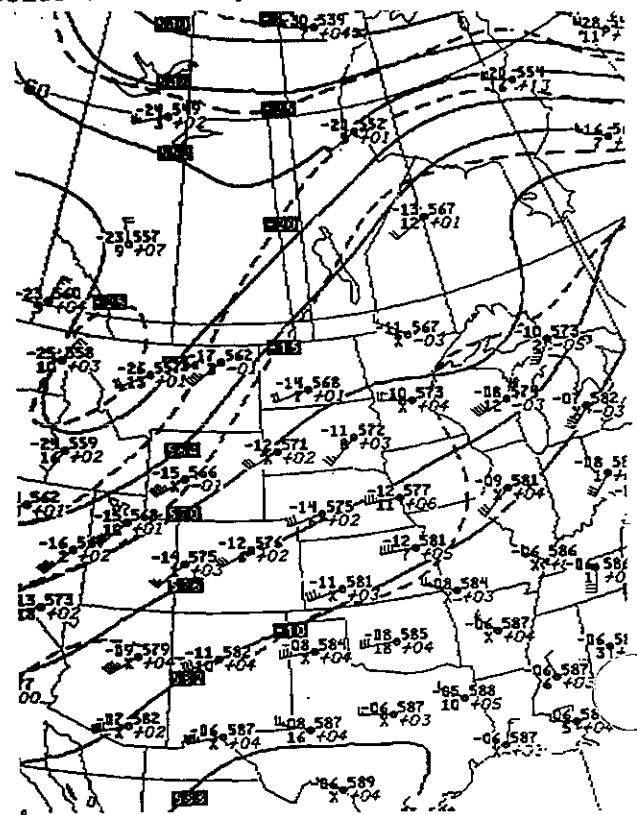
Composite 6PM CST May 26, 1991



Surface 6PM CST May 26, 1991



GOES 6PM CST May 26, 1991



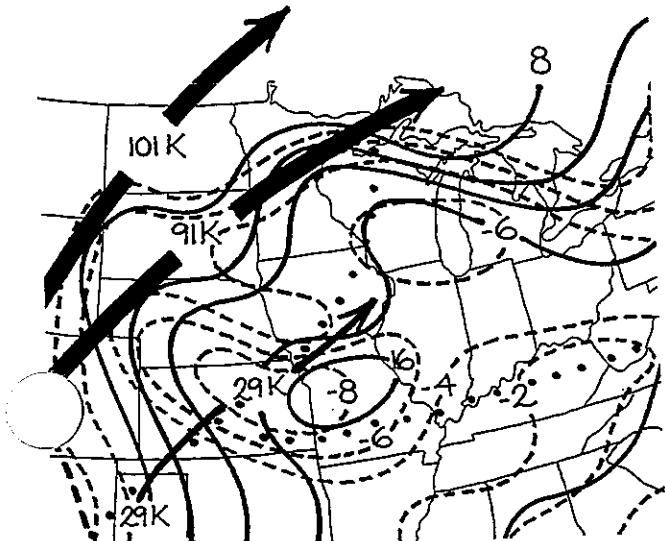
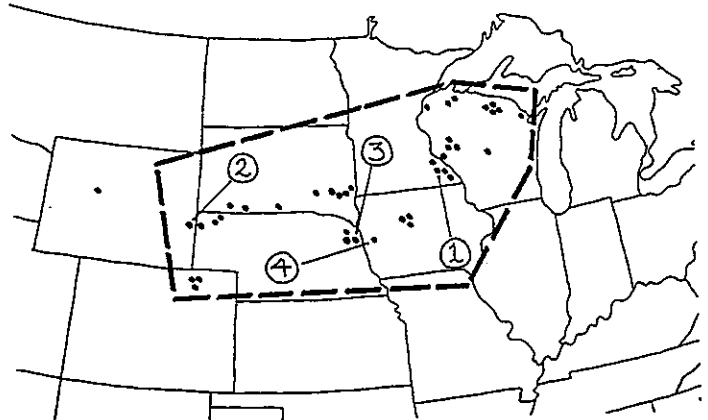
500MB 6PM CST May 26, 1991

\*\*\* 39 SEVERE REPORTS \*\*

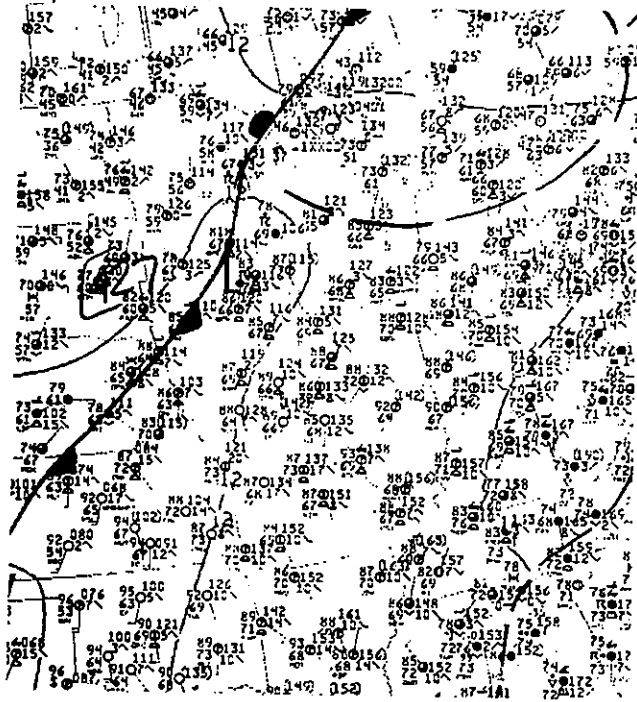
\*\*\* 4 TORNADES \*\*\*

\*\*\* 1405-0546 CST \*\*\*

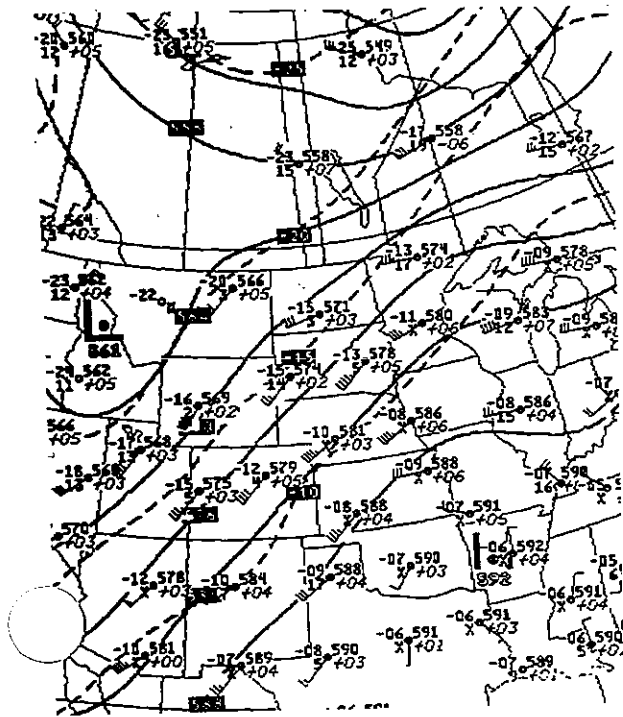
NO	TIME	EVENT	ST	LOCATION	
1	1440	2.75 INCH HAIL	MN	SE ROCHESTER	( 7 NNE RST)
2	1820	2.75 INCH HAIL	WI	2 S VAN TASSELL	(52 WSW CDR)
3	2345	TORNADO (F-3) two injuries, 0.9 million dollars damage	NE	N OAKLAND	(39 S SUX)
4	0056	TORNADO (F-2)	IA	6 E BLENCOE	(37 SSE SUX)



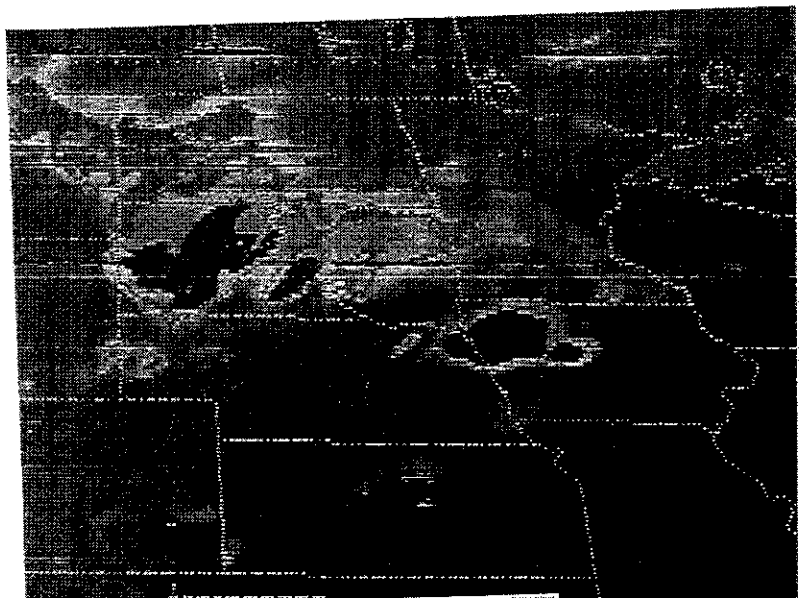
Composite 6PM CST May 27, 1991



Surface 3PM CST May 27, 1991



500MB 6PM CST May 27, 1991



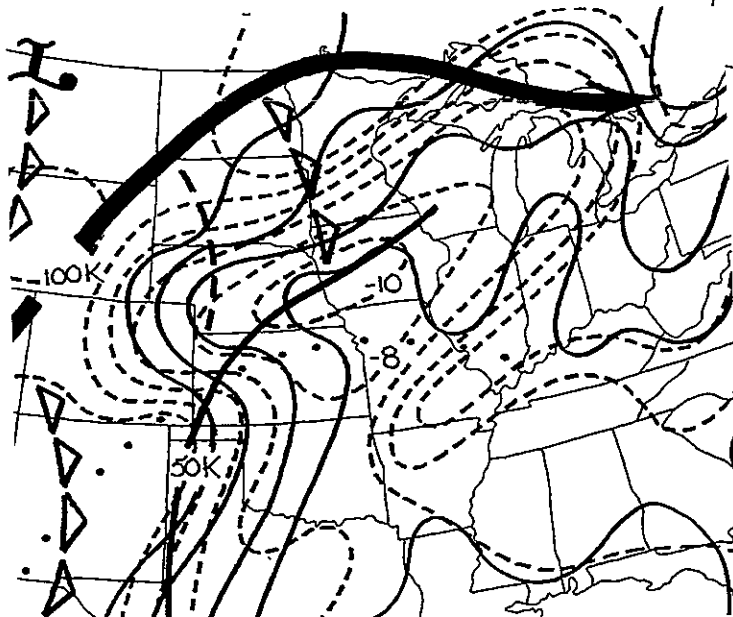
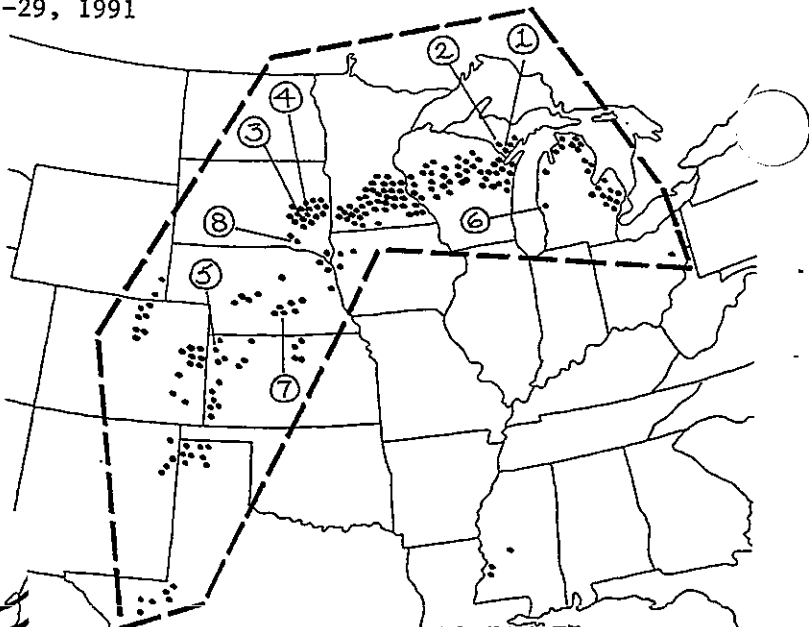
119 GOES 11:30 PM CST May 27, 1991

\*\*\* 197 SEVERE REPORTS \*\*\*

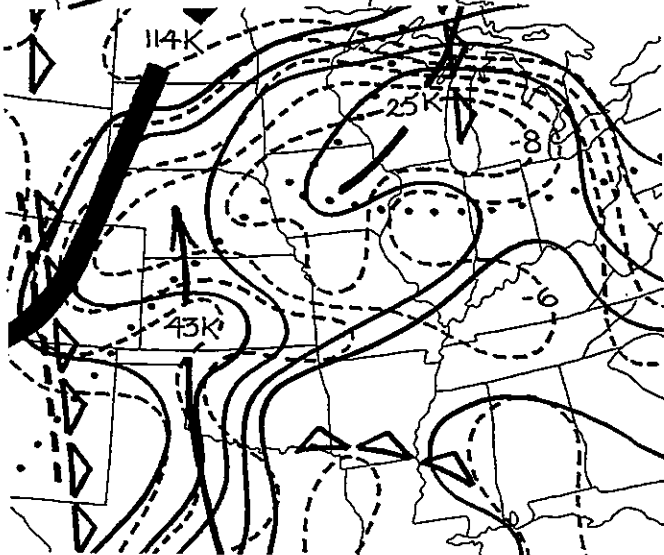
\*\*\* 16 TORNADOES \*\*\*

\*\*\* 0643-0530 CST \*\*\*

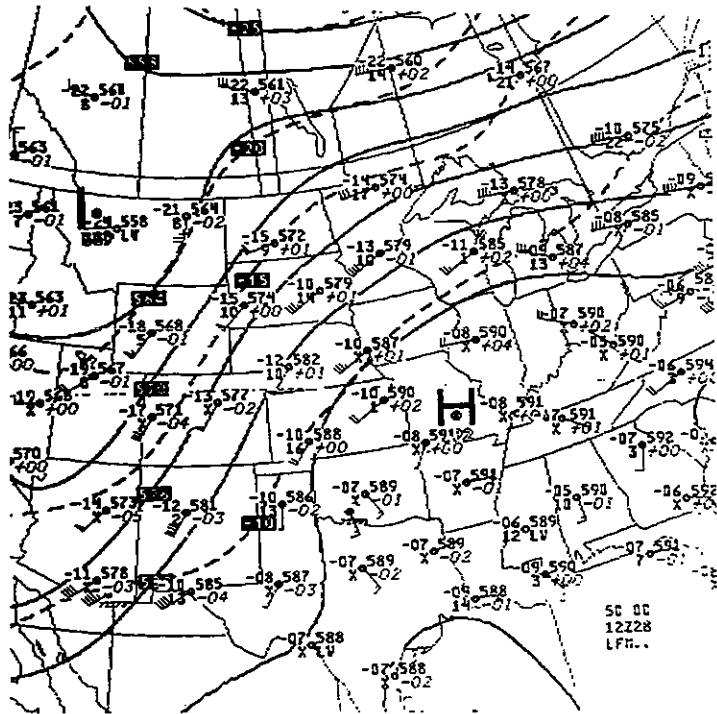
NO	TIME	EVENT	ST	LOCATION	
1	1330	TORNADO (F-3)	MI	3 W DAGGET	(31 WSW ESC)
2	1330	TORNADO (F-2)	MI	FAITHORN	(33 W ESC)
3	1610	4.00 INCH HAIL one injury, more than 0.5 million dollars damage	SD	WOONSOCKET	(22 S HON)
4	1645	5.00 INCH HAIL one injury	SD	8 N ARTESIAN	(22 SE HON)
5	1743	89 MPH WIND GUST	KS	GOODLAND	( GLD)
6	1805	TORNADO (F-2)	MI	HART	(37 NNW MKG)
7	2110	TORNADO (F-1) two injuries	NE	14 S RAVENNA	(32 W GRI)



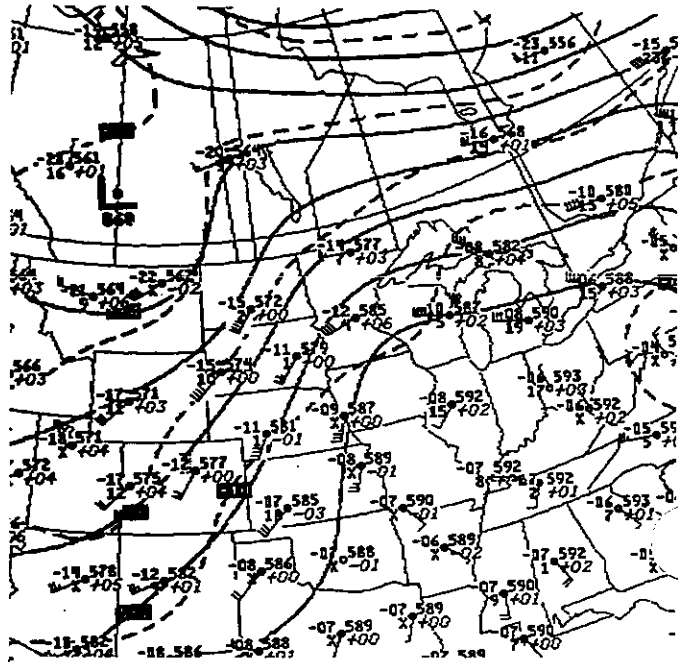
Composite 6AM CST May 28, 1991



Composite 6PM CST May 28, 1991

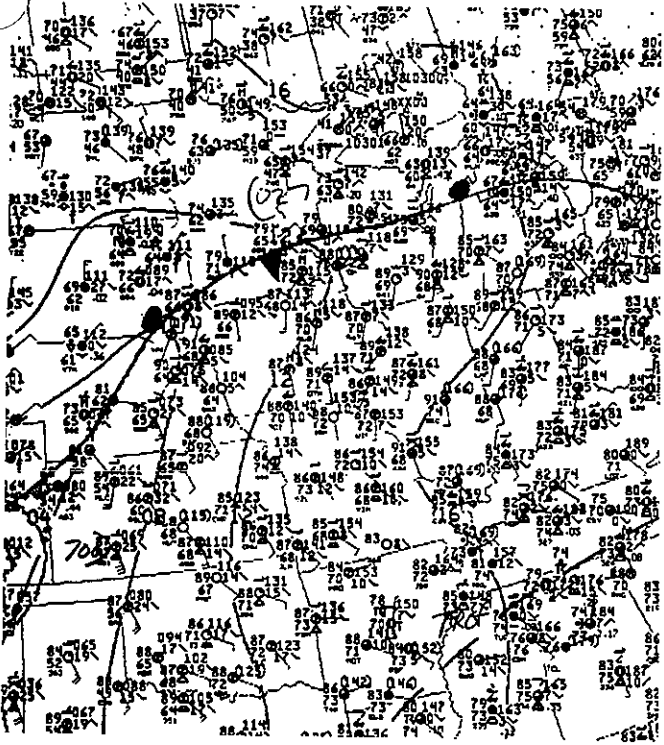


500MB 6AM CST May 28, 1991

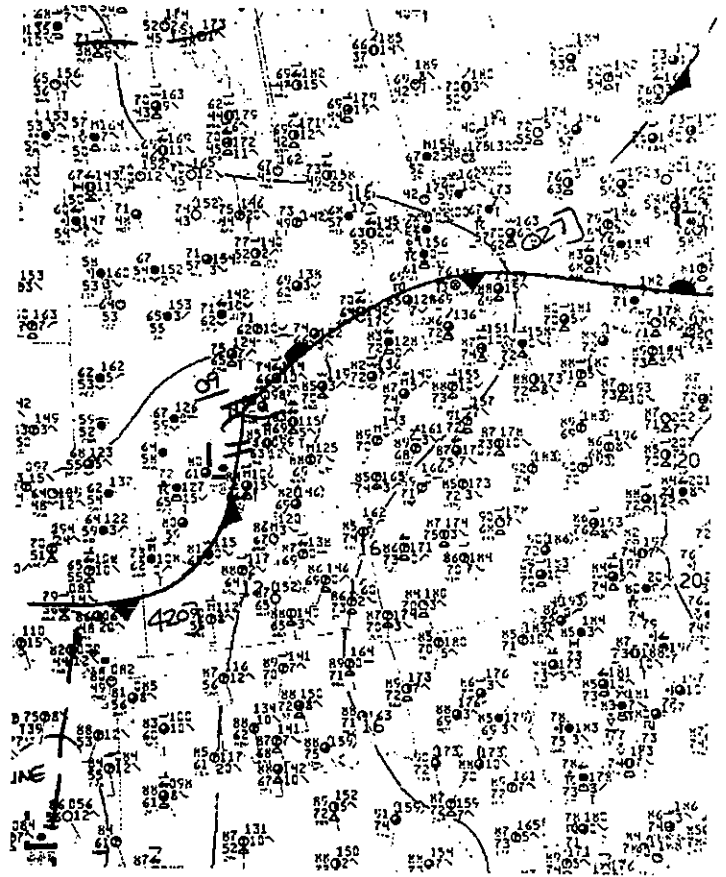


500MB 6PM CST May 28, 1991

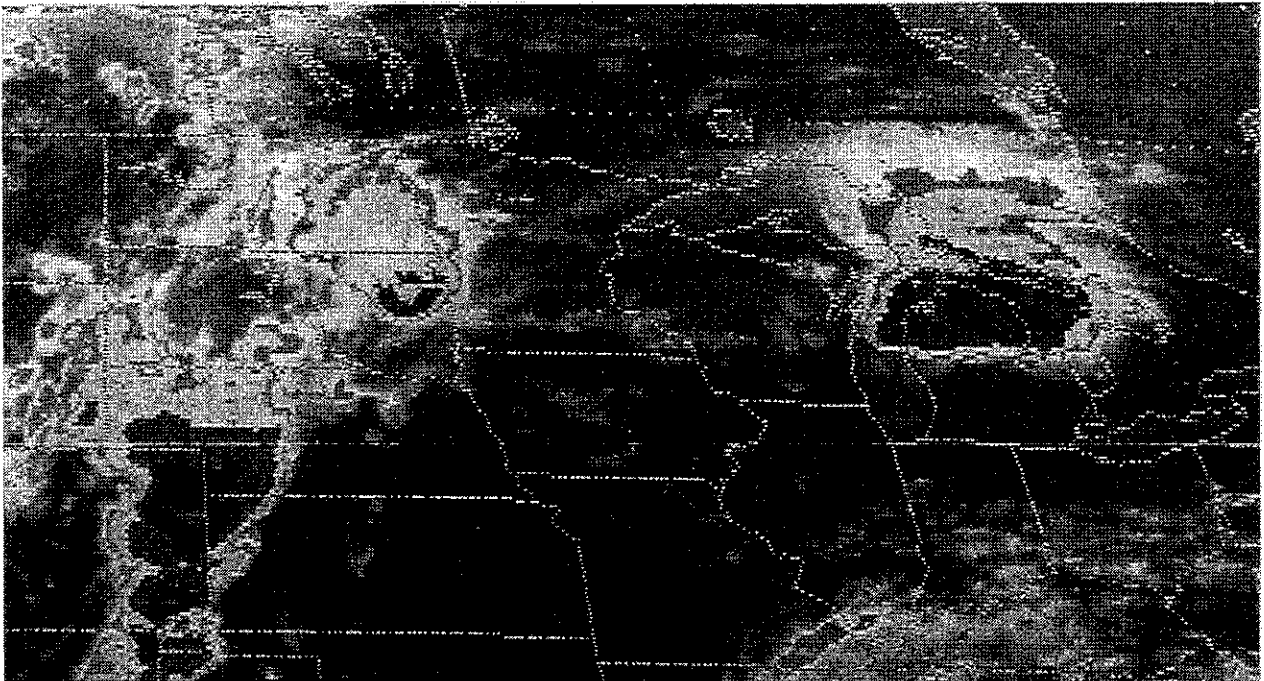




Surface 12 Noon CST May 28, 1991



Surface 6PM CST May 28, 1991



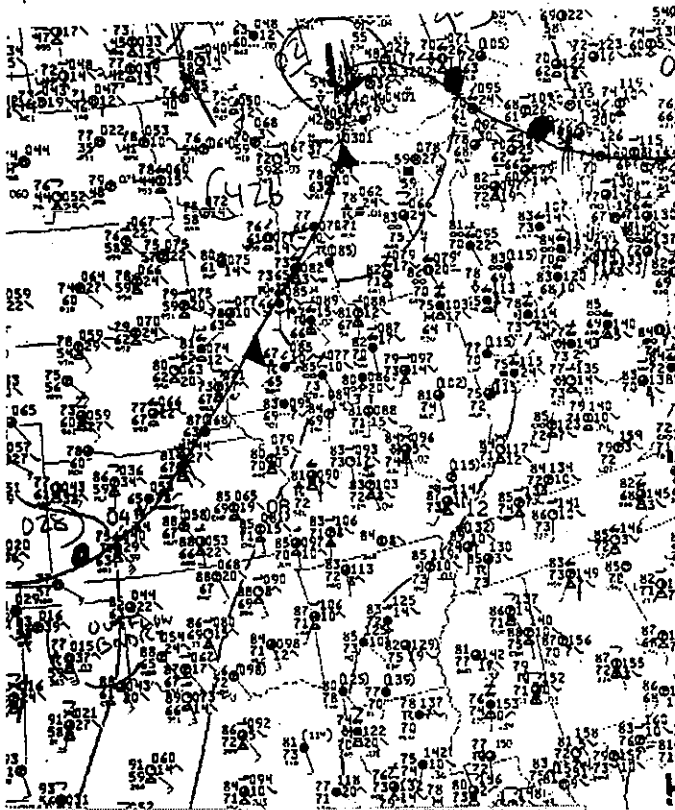
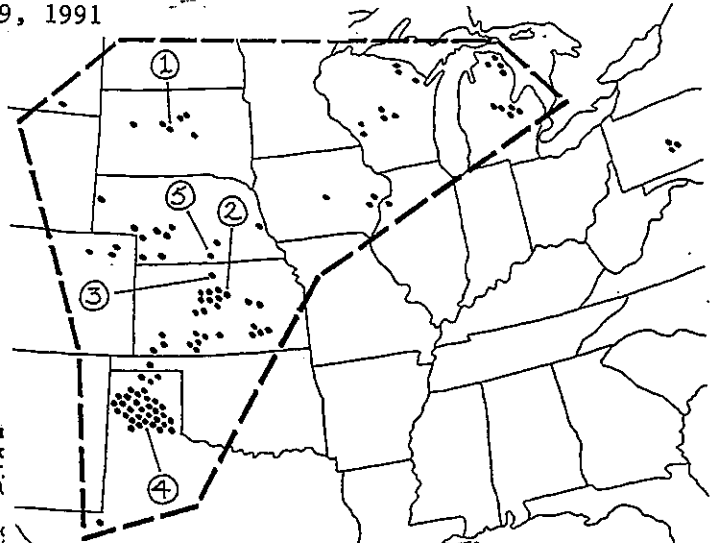
GOES 5PM CST May 28, 1991

\*\*\* 98 SEVERE REPORTS \*\*\*

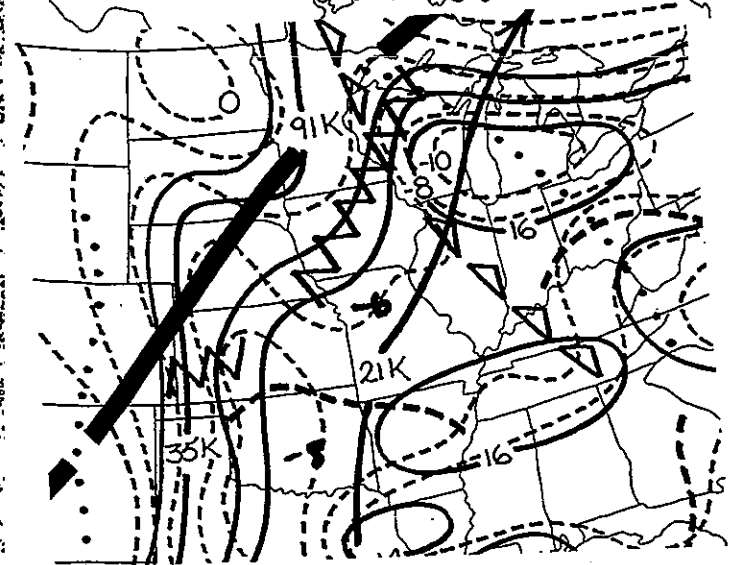
\*\*\* 20 TORNADOES \*\*\*

\*\*\* 1345-2339 CST \*\*\*

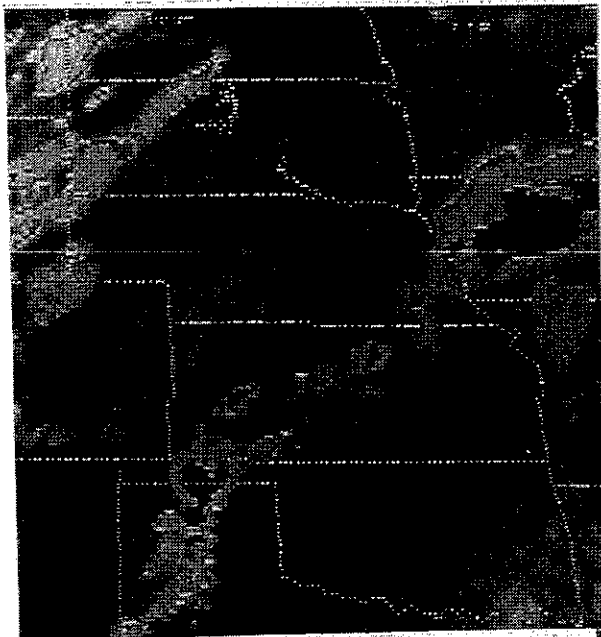
NO	TIME	EVENT	ST	LOCATION	
1	1720	2.75 INCH HAIL	SD	22 N PHILIP	(22 N PHP)
2	1808	92 MPH WIND GUST	KS	RUSSELL	( RSL)
3	1838	4.50 INCH HAIL	KS	SMITH COUNTY	(59 NE HLC)
4	1845	2.75 INCH HAIL	TX	10 NW SILVERTON	(47 SSE AMA)
5	2100	2.75 INCH HAIL	NE	CAMBRIDGE	(22 E MCK)



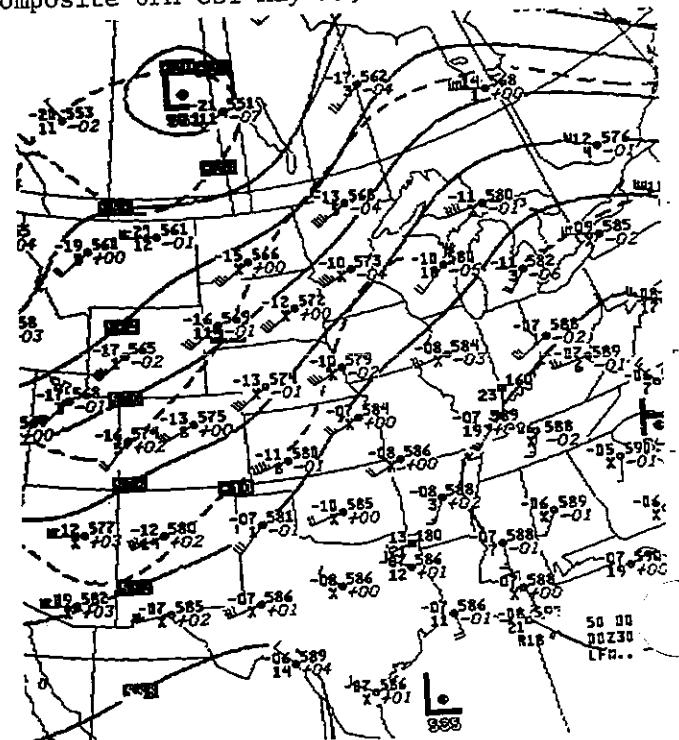
Surface 6PM CST May 29, 1991



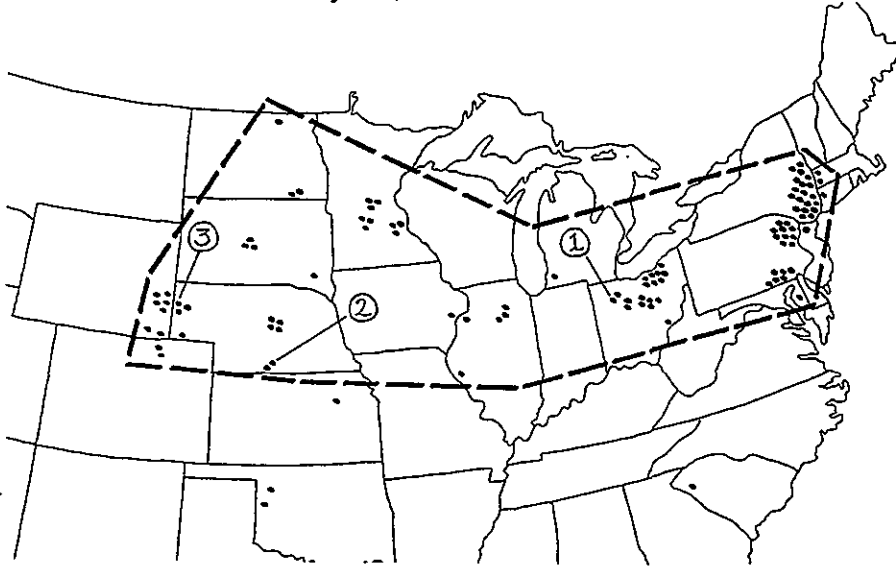
Composite 6PM CST May 29, 1991



GOES 4PM CST May 29, 1991



500MB 6PM CST May 29, 1991



\*\*\* 98 SEVERE REPORTS \*\*\*

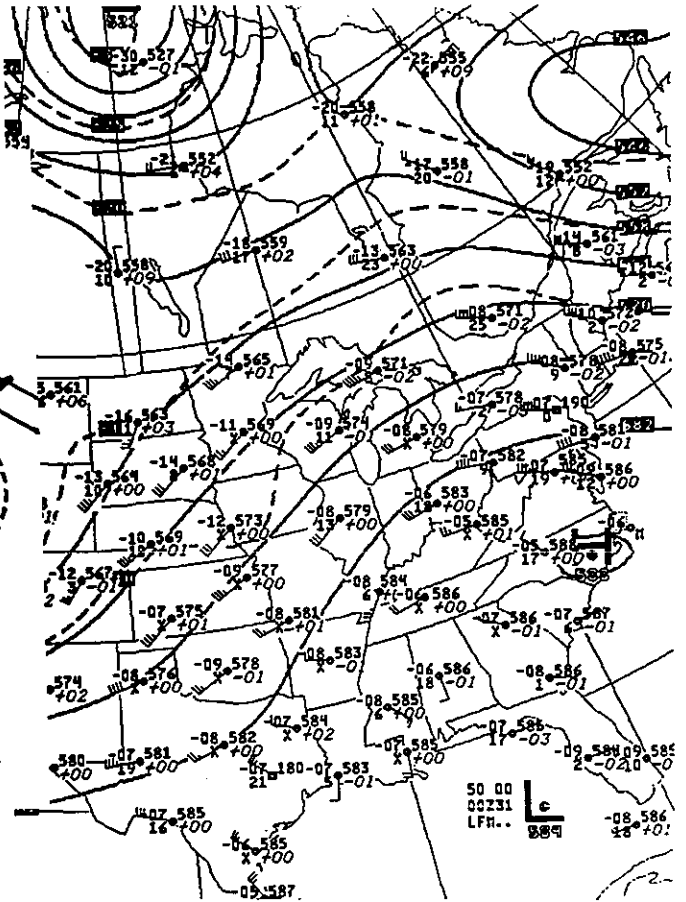
\*\*\* 19 TORNADOES \*\*\*

\*\*\* 1130-2145 CST \*\*\*

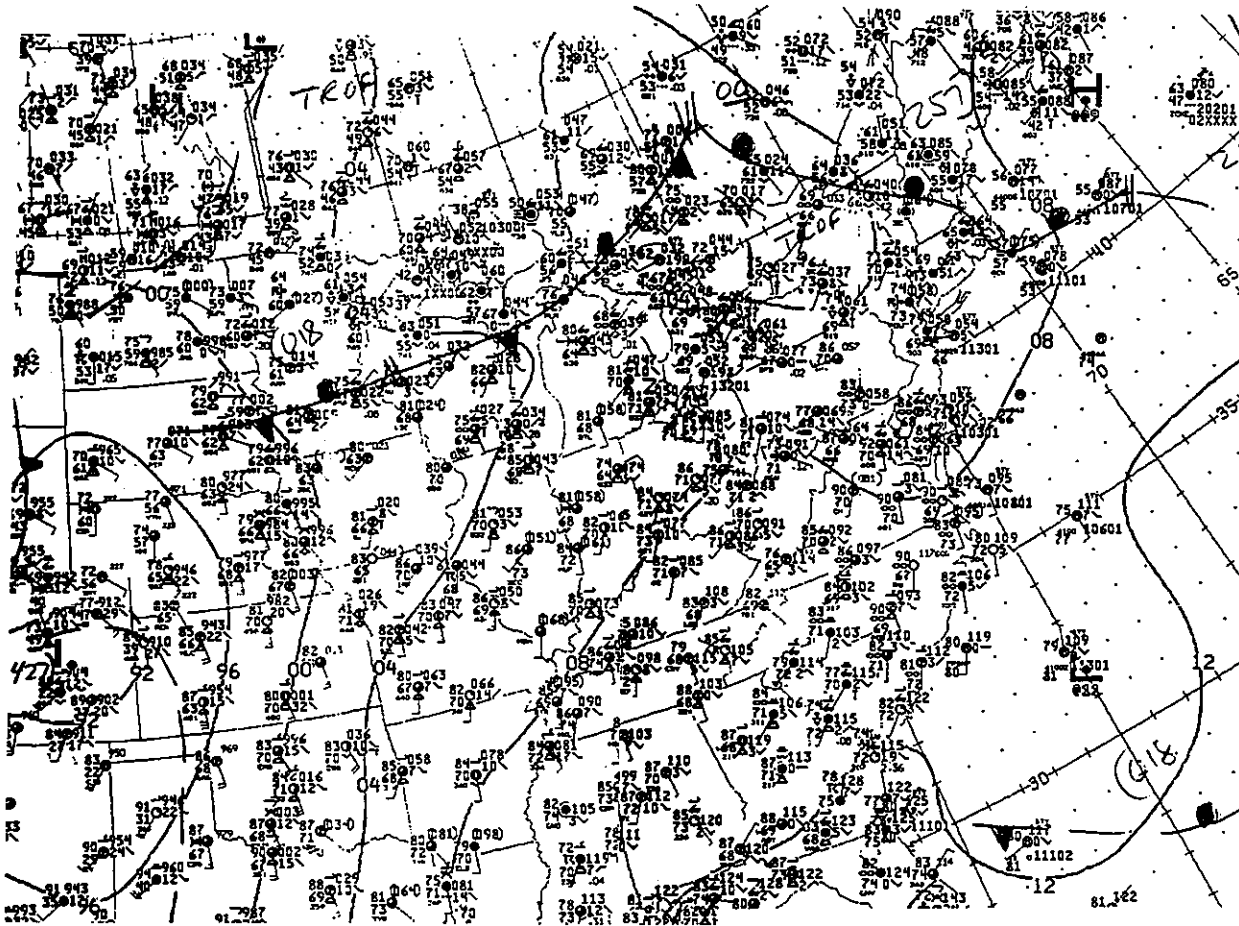
NO	TIME	EVENT	ST	LOCATION	
1	1830	WIND DAMAGE two deaths, two injuries	OH	McCOMB	( 8 NW FDY)
2	1850	TORNADO (F-2)	NE	STAMFORD	(52 E MCK)
3	1850	2.75 INCH HAIL	NE	3 N LYMAN	(23 WNW BFF)



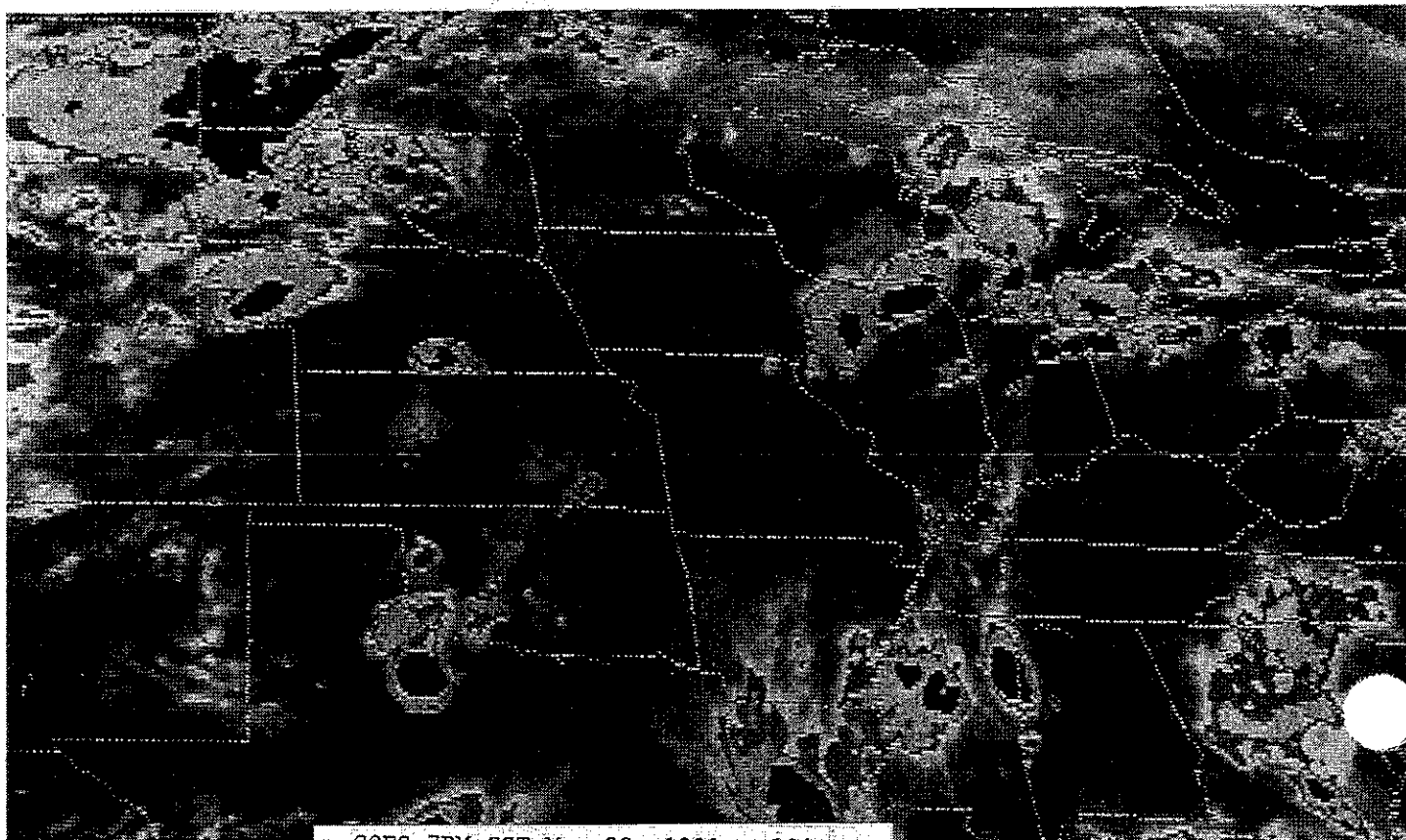
Composite 6PM CST May 30, 1991



500MB 6PM CST May 30, 1991



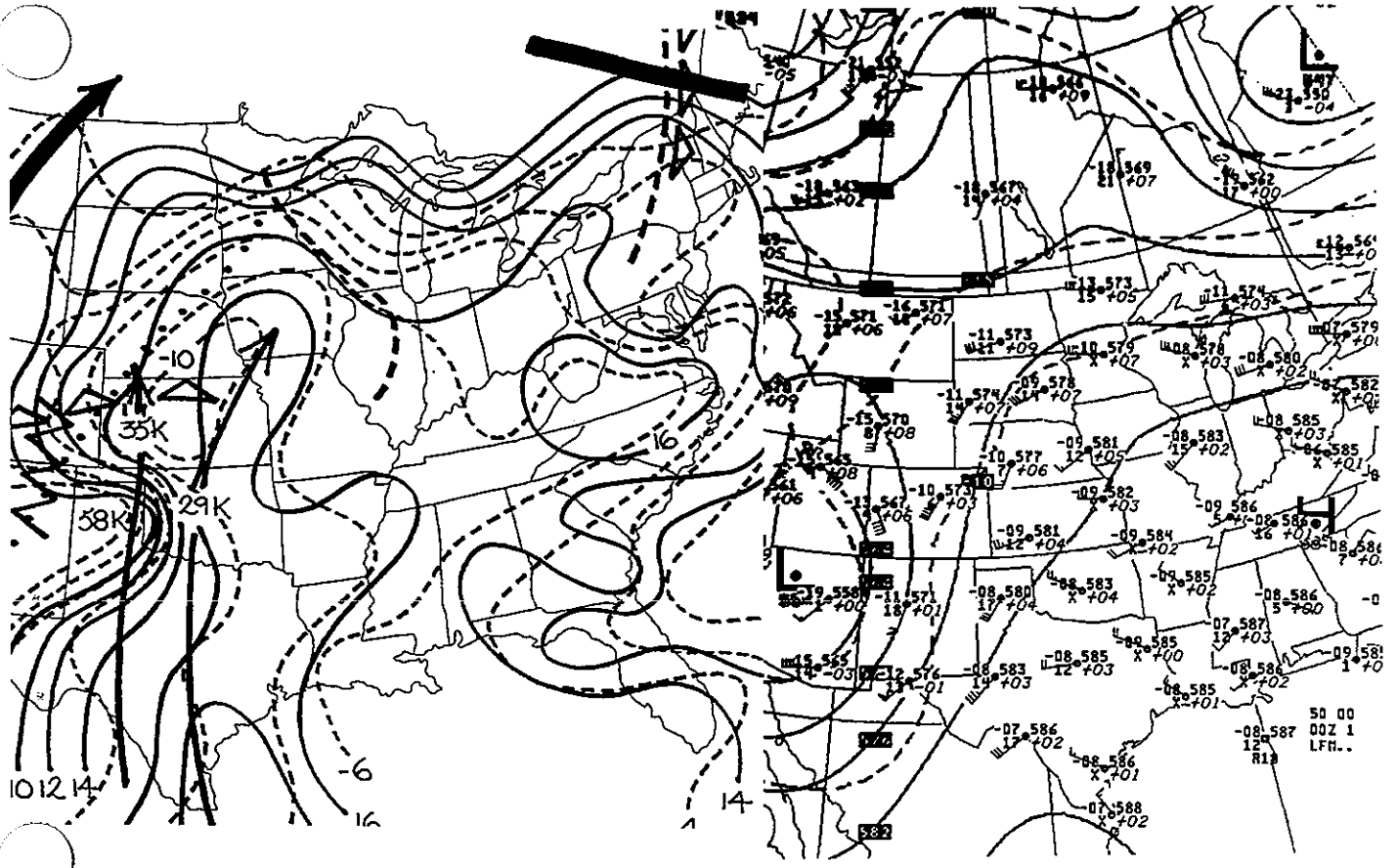
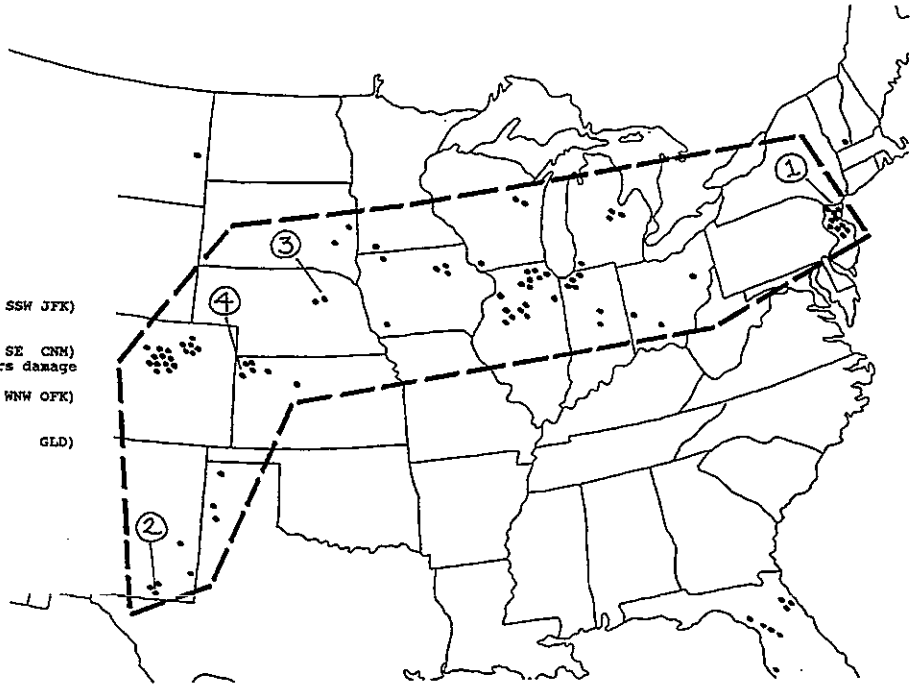
Surface 6PM CST May 30, 1991



GOES 7PM CST May 30, 1991 124

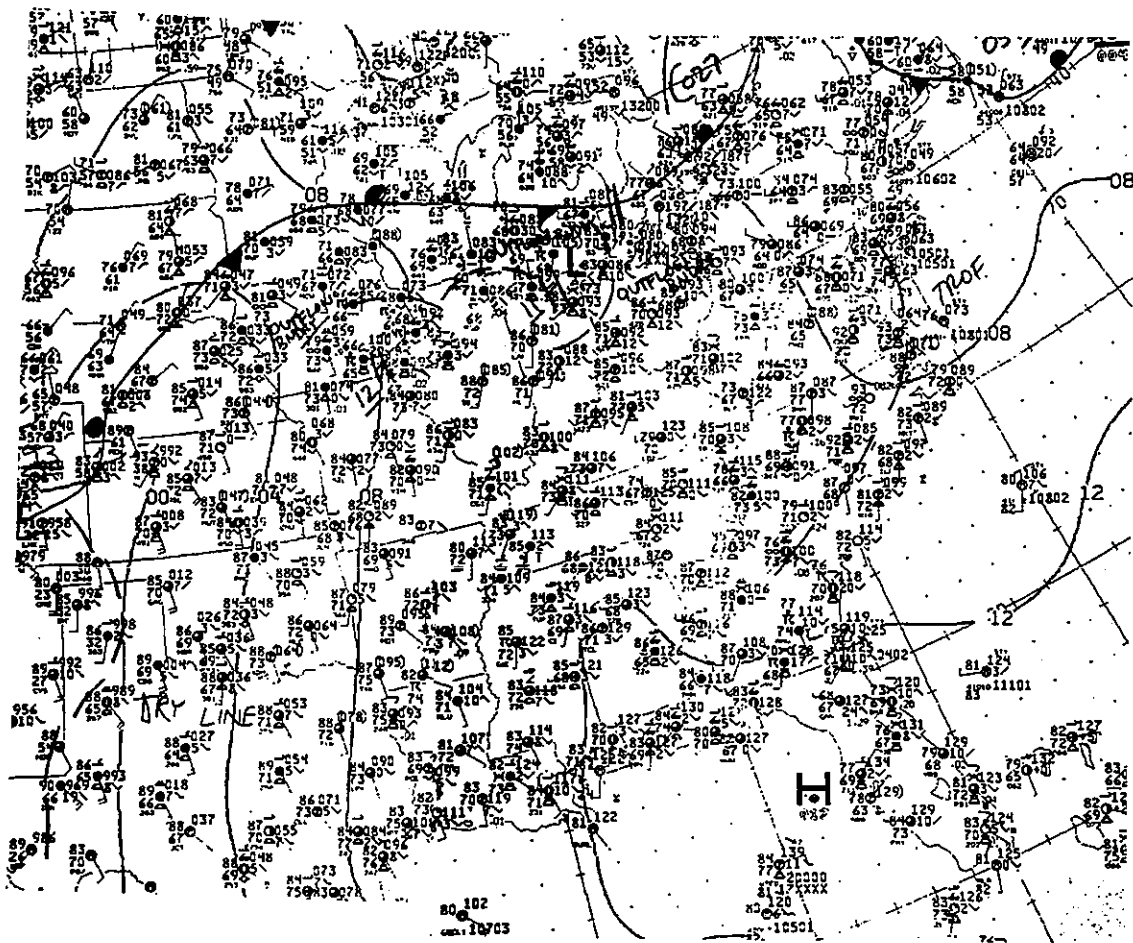
\*\*\* 84 SEVERE REPORTS \*\*\*  
 \*\*\* 8 TORNADOES \*\*\*  
 \*\*\* 0640-0525 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1350	85 MPH WIND GUST	NJ	MONMOUTH	(23 SSW JFK)
2	1942	TORNADO (F-2) twenty-one injuries, more than 0.5 million dollars damage	NM	3 SE CARLSBAD	( 3 SE CNM)
3	2100	2.75 INCH HAIL	NE	EWING	(51 WNW OFK)
4	0442	76 MPH WIND GUST	KS	GOODLAND	( GLD)

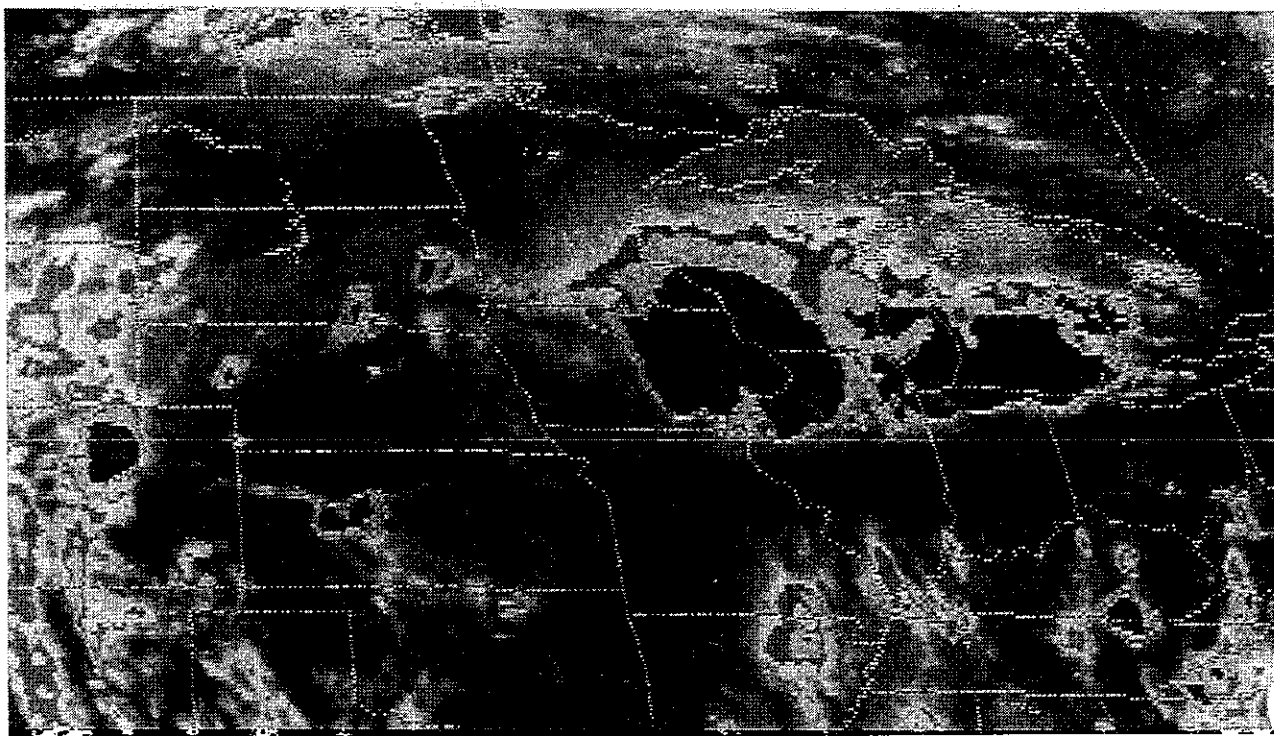


Composite 6PM CST May 31, 1991

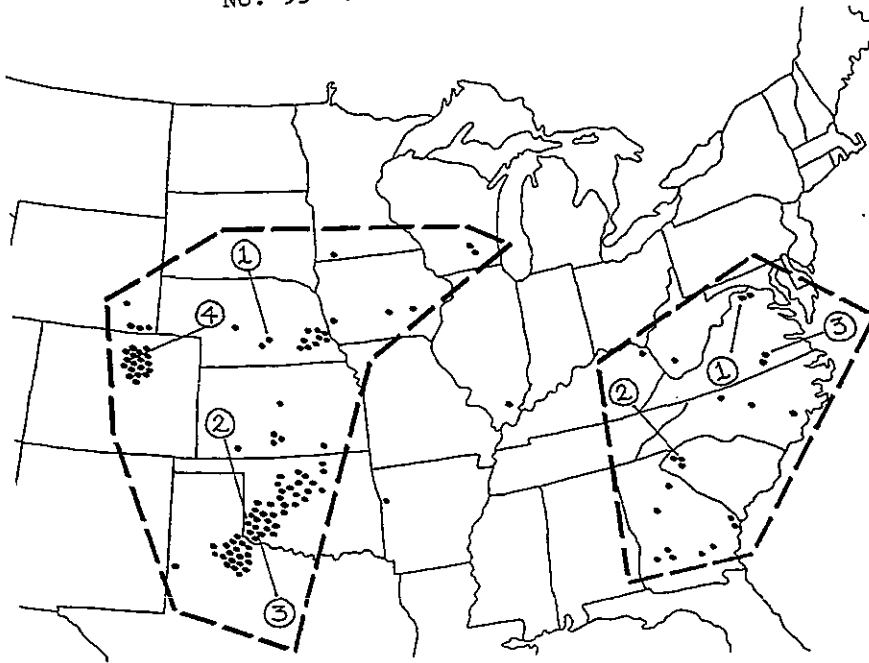
500MB 6PM CST May 31, 1991



Surface 6PM CST May 31, 1991



GOES 6PM CST May 31, 1991

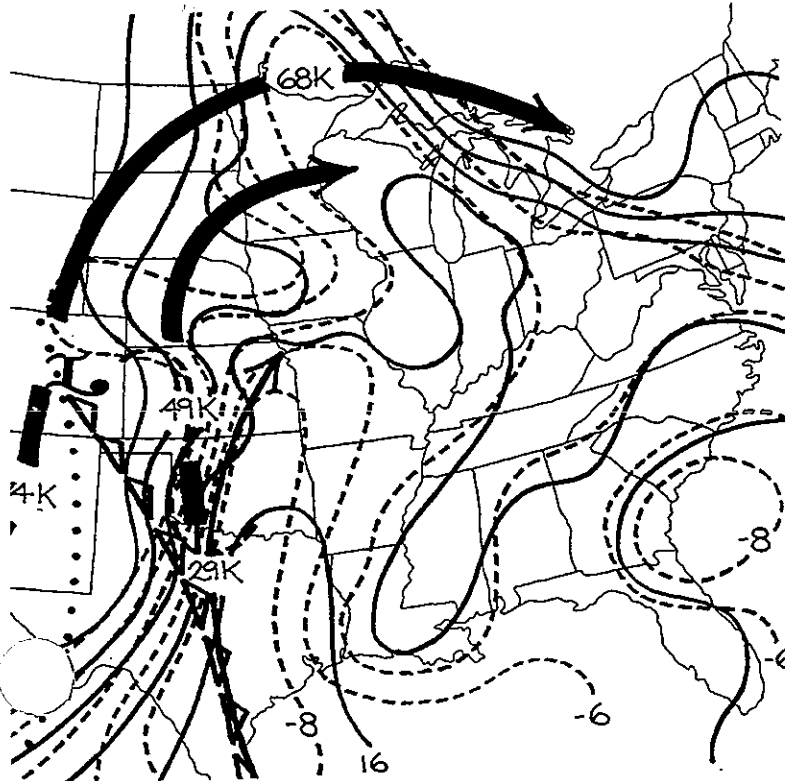


\*\*\* 99 SEVERE REPORTS \*\*\*  
 \*\*\* 10 TORNADOES \*\*\*  
 \*\*\* 0715-2250 CST \*\*\*

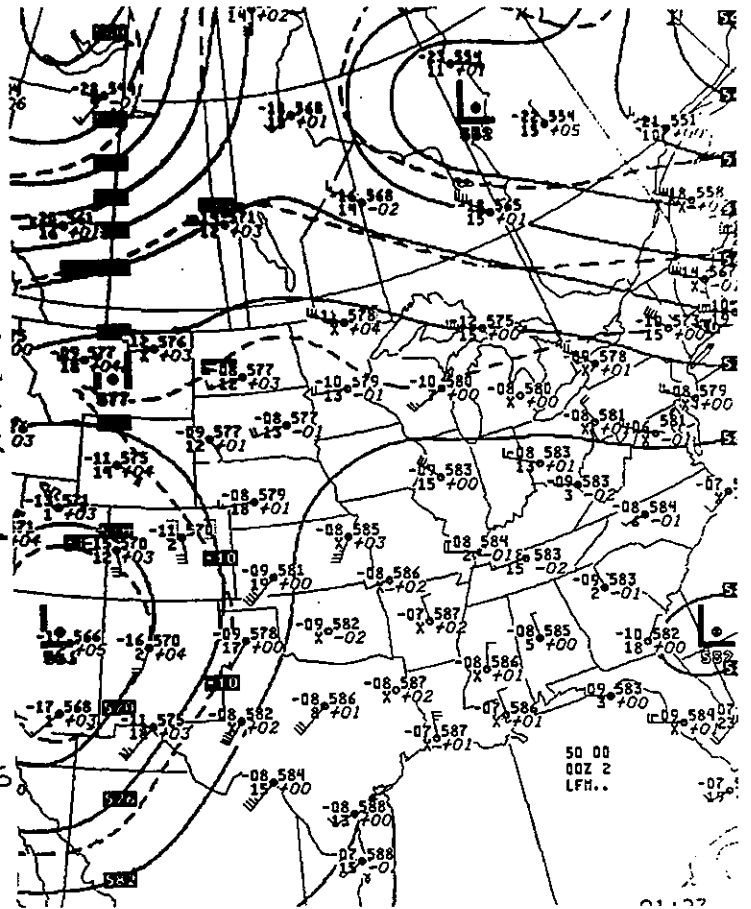
\*\*\* 21 SEVERE REPORTS \*\*\*  
 \*\*\* 1045-1945 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	0943	2.75 INCH HAIL	NE	RIVERDALE	( 9 WNW EAR)
2	1710	80 MPH WIND GUST	OK	6 S DUKE	(17 W LTS)
3	1727	WIND DAMAGE two million dollars damage	OK	ALTUS AFB	( LTS)
4	1805	80 MPH WIND GUST	CO	LONGMONT	(19 SSW FCL)

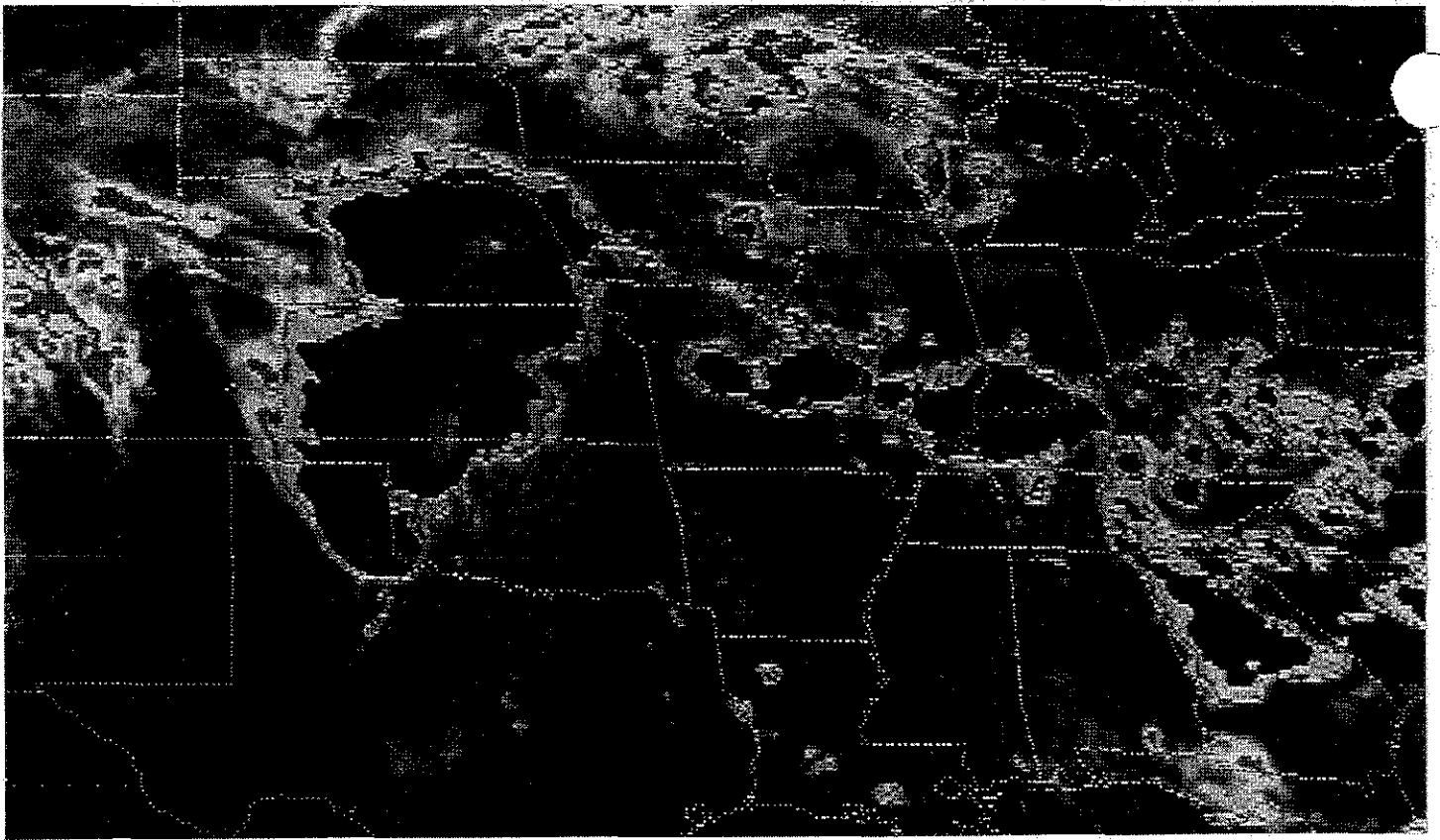
NO	TIME	EVENT	ST	LOCATION	
1	1052	90 MPH WIND GUST	VA	WINCHESTER	(20 SW MRB)
2	1415	69 MPH WIND GUST one death	SC	GREENVILLE CITY	( 9 WSW GSP)
3	1701	2.00 INCH HAIL	VA	SRN BRUNSWICK CO	(58 SSW RIC)



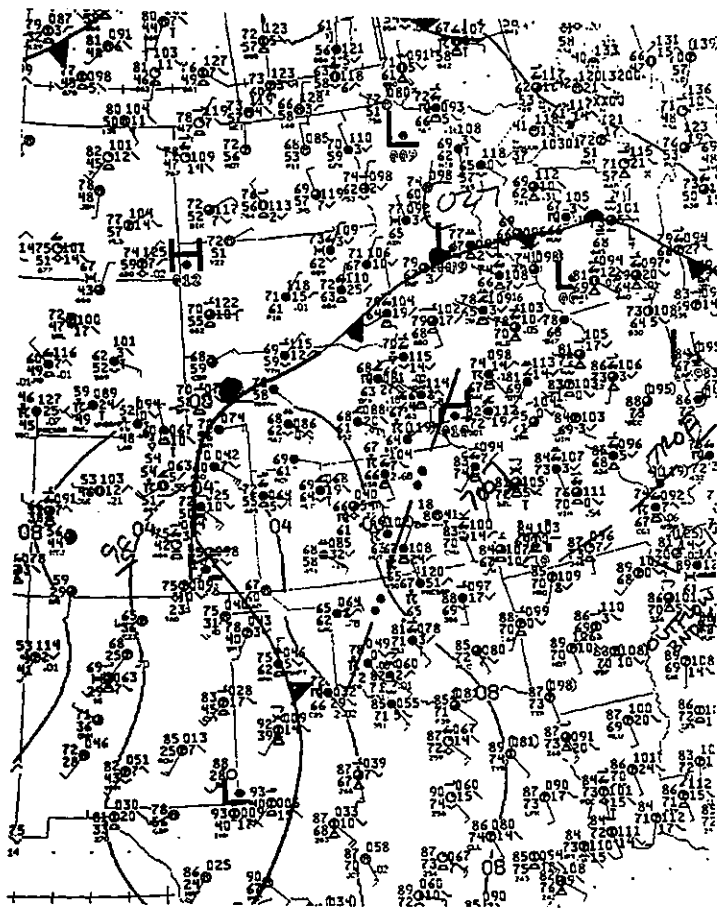
Composite 6PM CST June 1, 1991



500MB 6PM CST June 1, 1991



GOES 2PM CST June 1, 1991



Surface 3PM CST June 1, 1991 128



\*\*\* 38 SEVERE REPORTS \*\*\*

\*\*\* 1 TORNADO \*\*\*

\*\*\* 1220-2240 CST \*\*\*

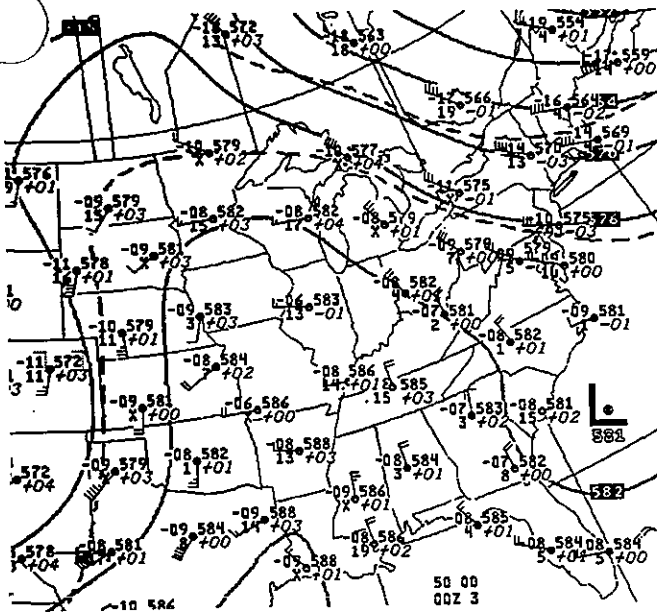
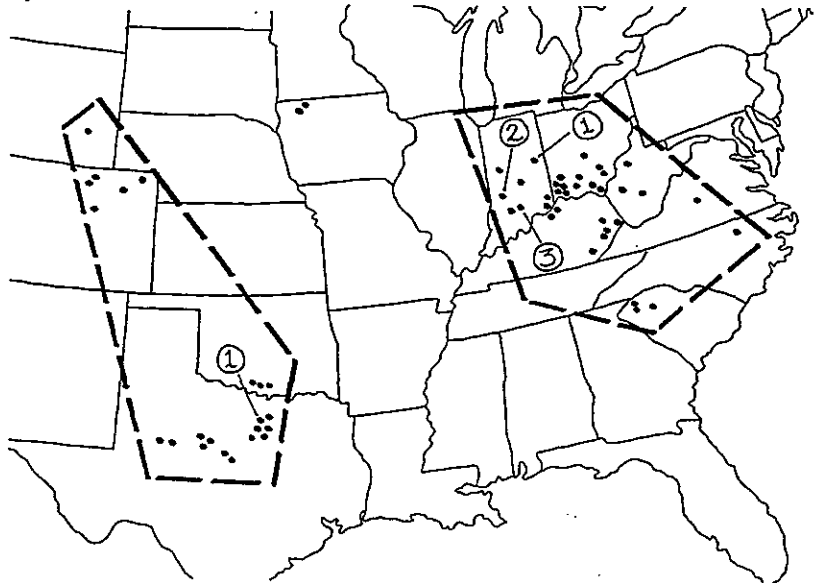
NO	TIME	EVENT	ST	LOCATION		
1	1330	80 MPH WIND GUST	IN	MUNCIE	(	MIE)
2	2000	80 MPH WIND GUST	IN	BLOOMINGTON	(	BNG)
3	2240	WIND DAMAGE two injuries	IN	OTISCO	(24 N	SDF)

\*\*\* 21 SEVERE REPORTS \*\*\*

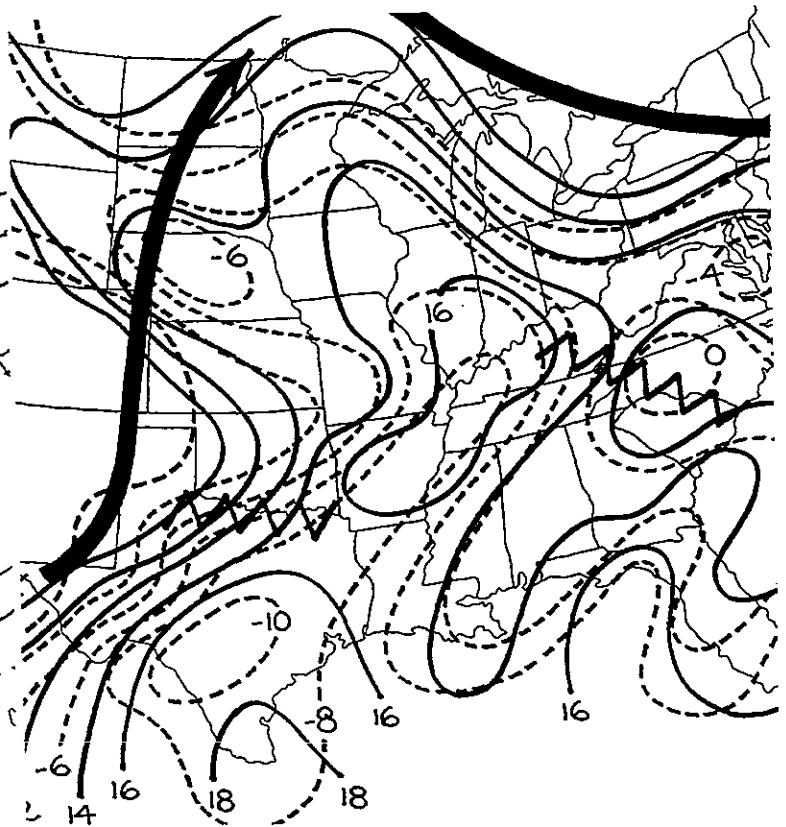
\*\*\* 9 TORNADOES \*\*\*

\*\*\* 0928-1913 CST \*\*\*

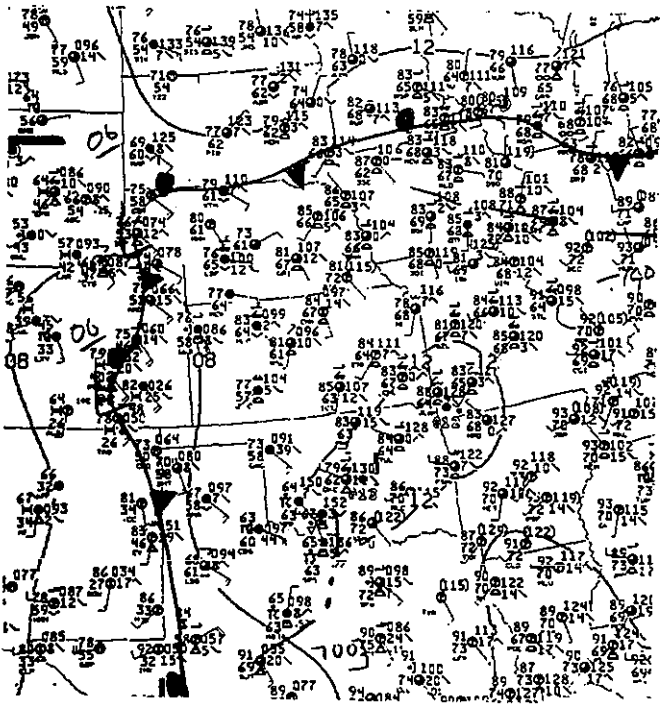
NO	TIME	EVENT	ST	LOCATION		
1	1557	85 MPH WIND GUST	TX	4 SE TIN TOP	(32 SW	FIW)



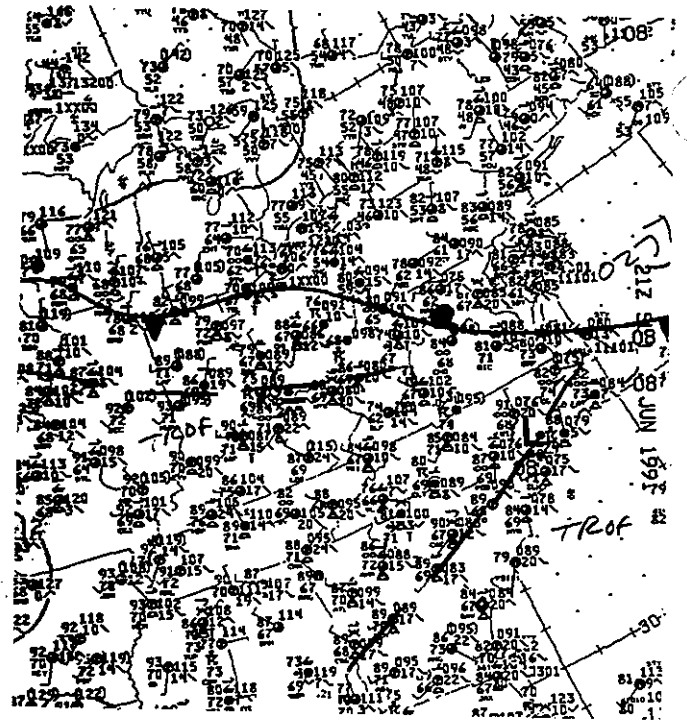
500MB 6PM CST June 2, 1991



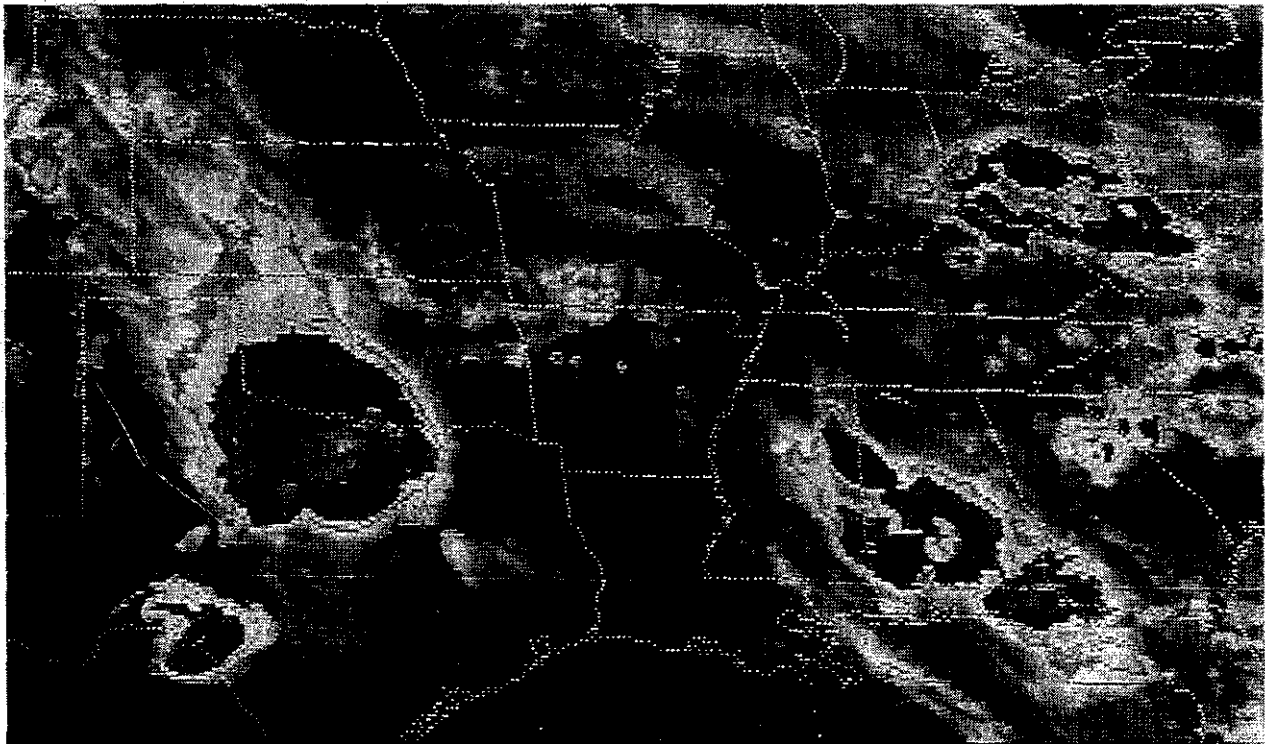
Composite 6PM CST June 2, 1991



Surface 3PM CST June 2, 1991



Surface 3PM CST June 2, 1991



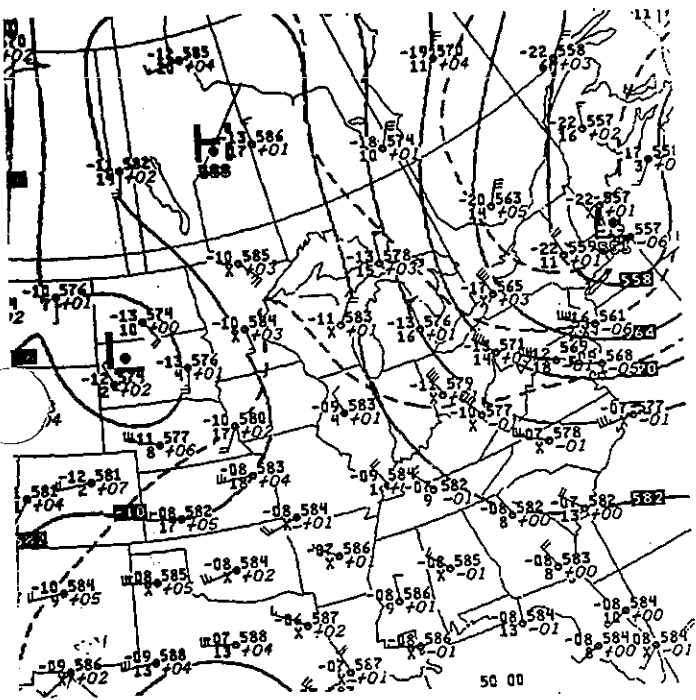
GOES 4PM CST June 2, 1991

\*\*\* 44 SEVERE REPORTS \*\*\*  
 \*\*\* 8 TORNADOES \*\*\*  
 \*\*\* 1205-2042 CST \*\*\*

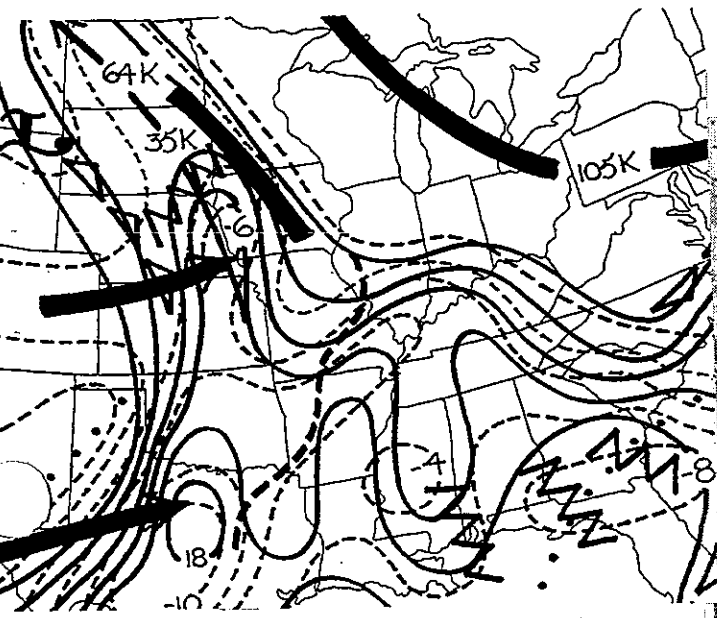
NO	TIME	EVENT	ST	LOCATION	
1	1445	TORNADO (F-2)	NE	5 NW MADISON	(10 SSW OFK)
2	1508	2.75 INCH HAIL	NE	5 S NORFOLK	( 5 S OFK)
3	1632	3.25 INCH HAIL	OK	MOORELAND	(32 ENE GAG)

\*\*\* 32 SEVERE REPORTS \*\*\*  
 \*\*\* 1320-2015 CST \*\*\*

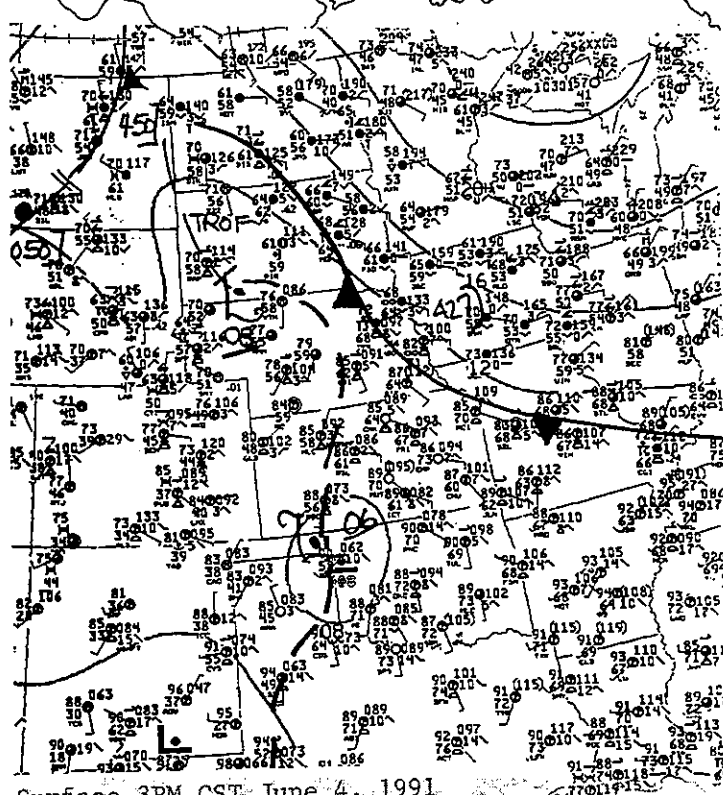
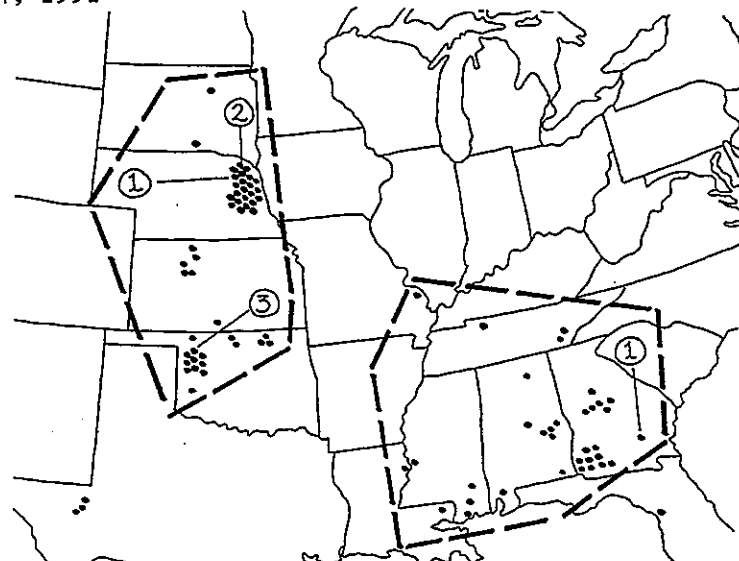
NO	TIME	EVENT	ST	LOCATION
1	1900	WIND DAMAGE two injuries	GA	ALMA



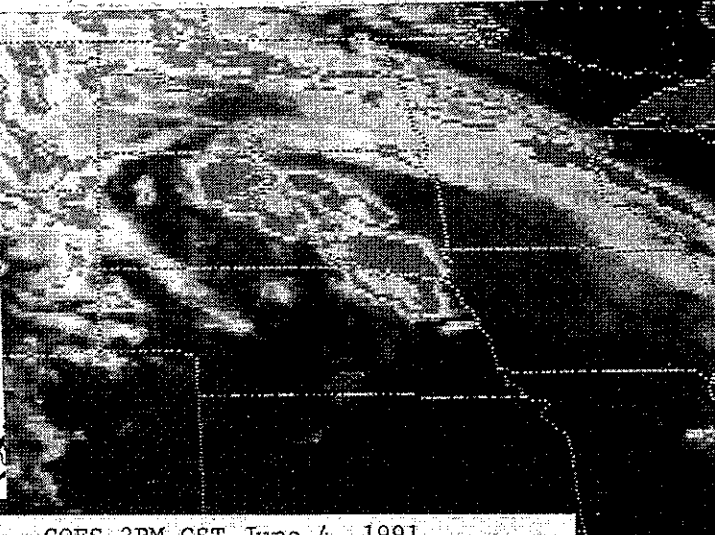
500MB 6PM CST June 4, 1991



Composite 6PM CST June 4, 1991



Surface 3PM CST June 4, 1991



131 GOES 2PM CST June 4, 1991

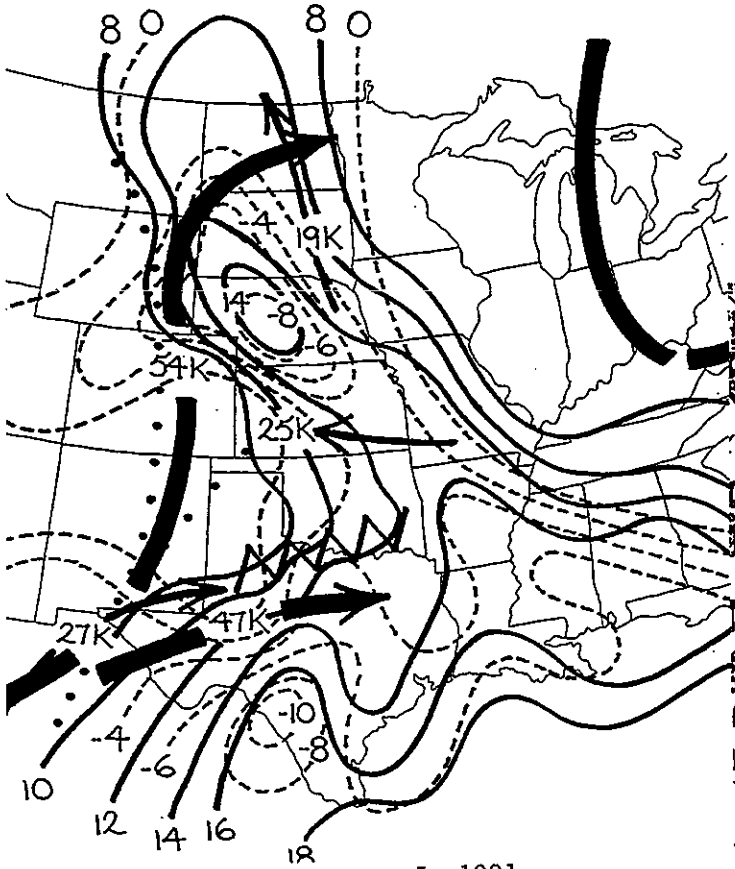
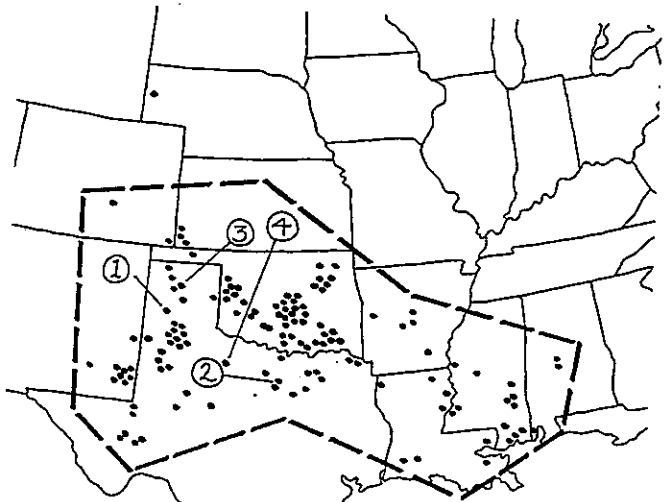
\*\*\* 128 SEVERE REPORTS \*\*\*

No. 98 June 5, 1991

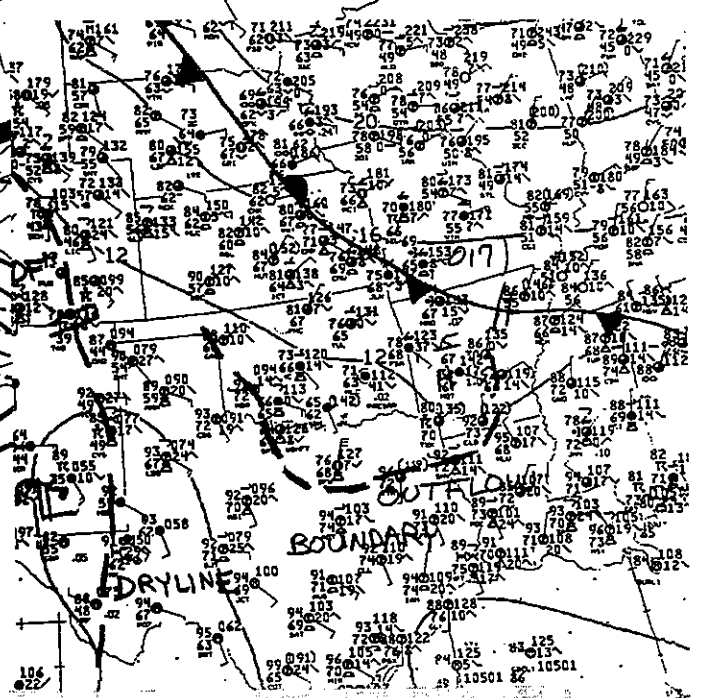
\*\*\* 18 TORNADOES \*\*\*

\*\*\* 0600-2210 CST \*\*\*

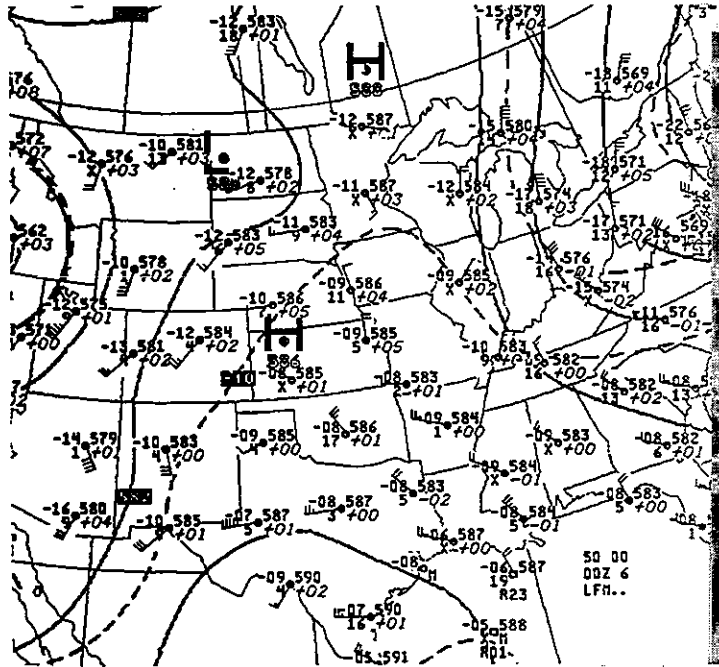
NO	TIME	EVENT	ST	LOCATION	
1	1550	2.50 INCH HAIL	TX	15 S CANYON	(20 SW AMA)
2	1615	WIND DAMAGE more than half a million dollars damage	TX	BOYD	(23 NW FTW)
3	1803	2.50 INCH HAIL	TX	2 W STINNETT	(43 NNE AMA)



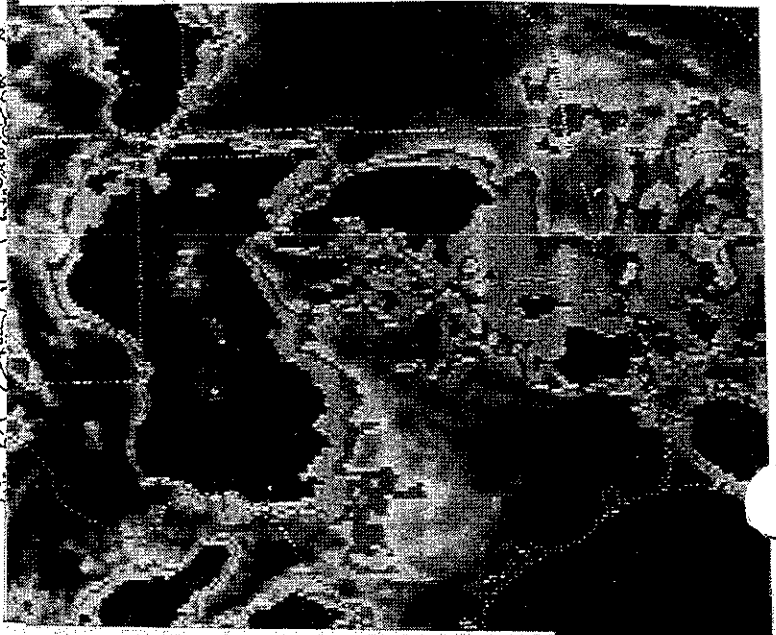
Composite 6PM CST June 5, 1991



Surface 3PM CST June 5, 1991



500MB 6PM CST June 5, 1991



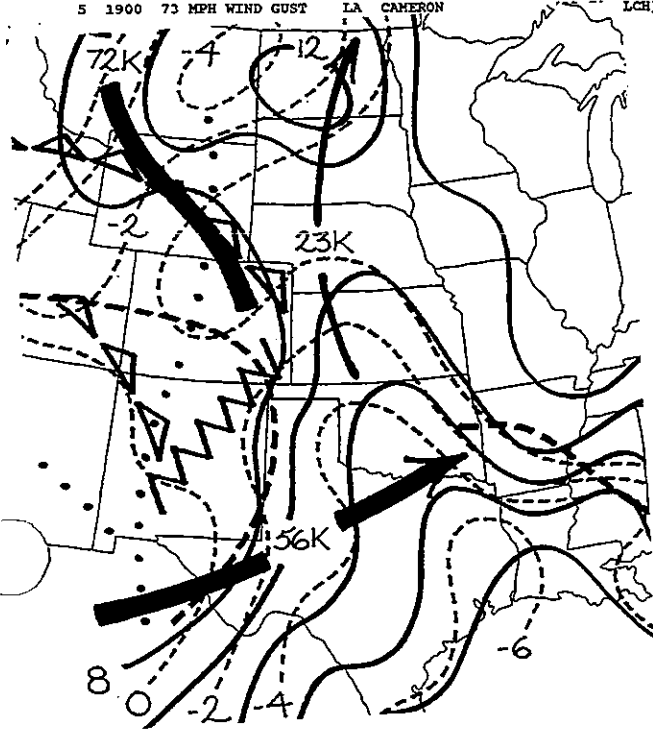
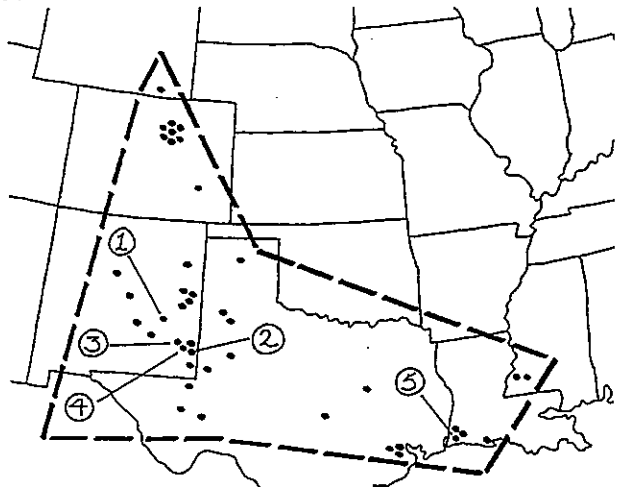
132 GORS 6PM CST June 5, 1991

\*\*\* 38 SEVERE REPORTS \*\*\*

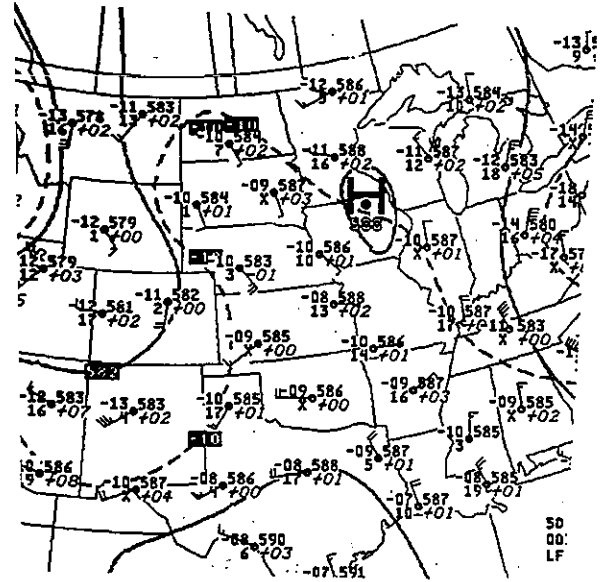
\*\*\* 22 TORNADOES \*\*\*

\*\*\* 1210-1935 CST \*\*\*

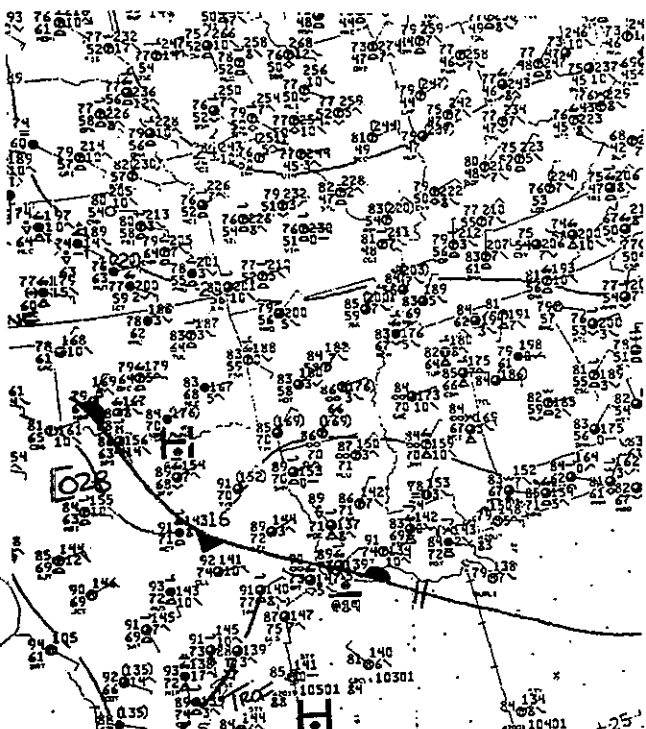
NO	TIME	EVENT	ST	LOCATION	
1	1515	4.50 INCH HAIL	NM	13 NW ROSWELL	(18 NW ROH)
2	1715	TORNADO (F-2)	NM	1 W MADINE	(7 SE HOB)
3	1715	TORNADO (F-2)	NM	12 W HOBBS	(12 W HOB)
4	1715	TORNADO (F-2) five injuries	NM	5 SW HOBBS	(5 SW HOB)
5	1900	73 MPH WIND GUST	LA	CAMERON	(LCH)



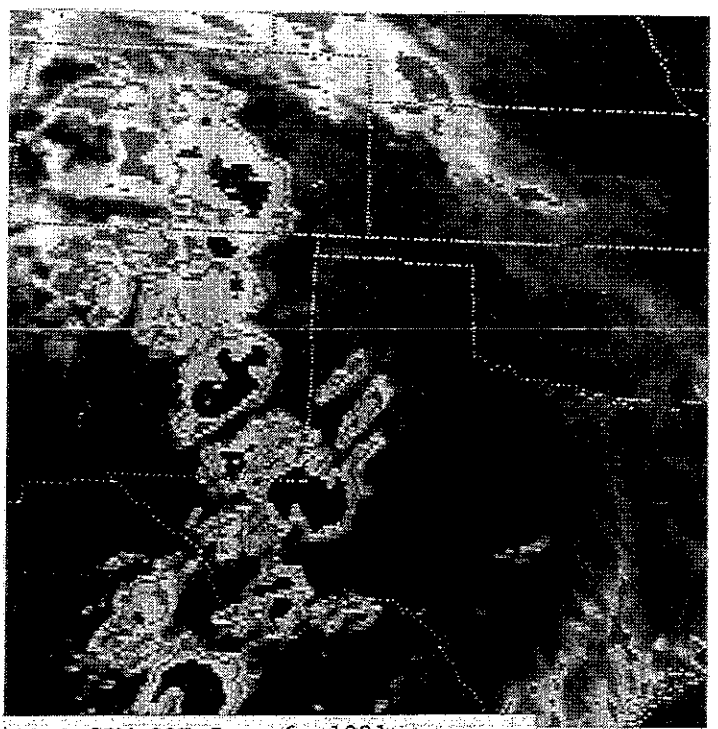
Composite 6PM CST June 6, 1991



500MB 6PM CST June 6, 1991



Surface 3PM CST June 6, 1991



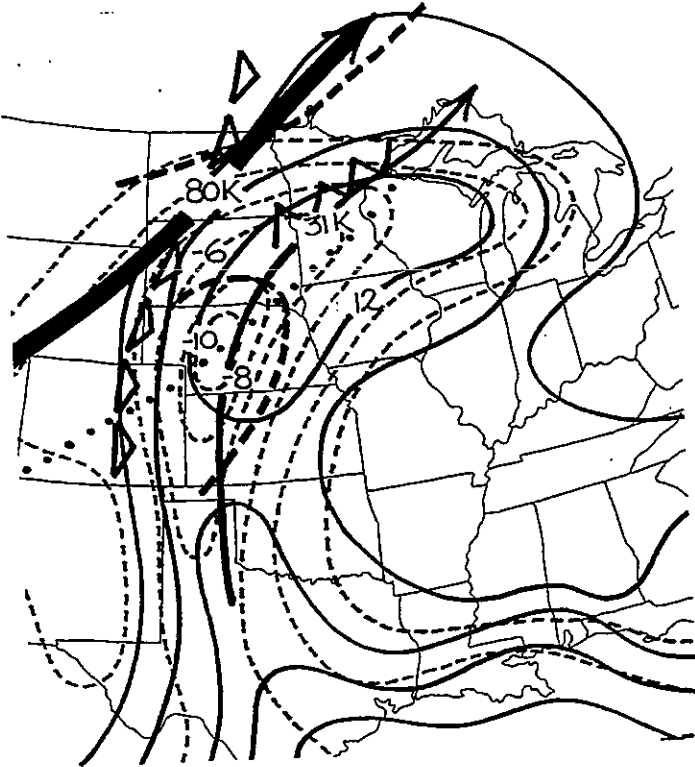
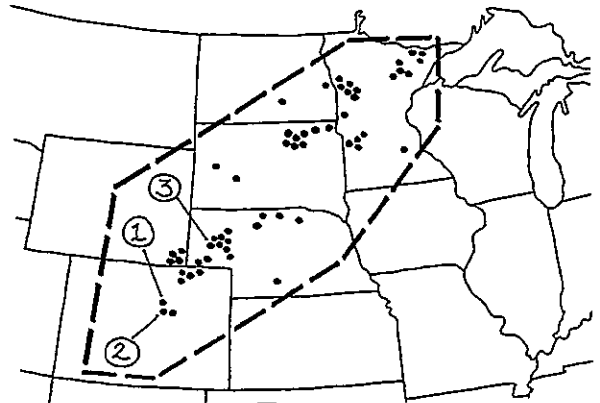
GOES 3PM CST June 6, 1991

\*\*\* 55 SEVERE REPORTS \*\*\*

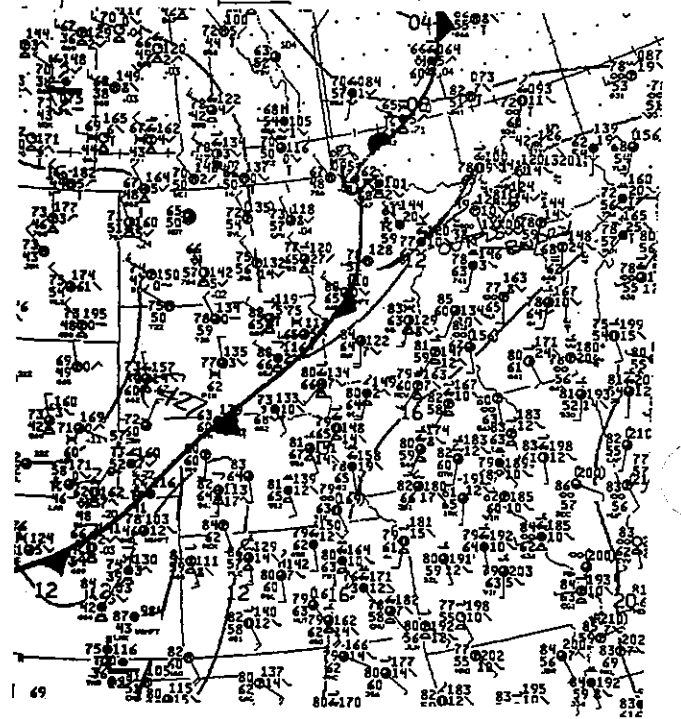
\*\*\* 13 TORNADES \*\*\*

\*\*\* 1325-2325 CST \*\*\*

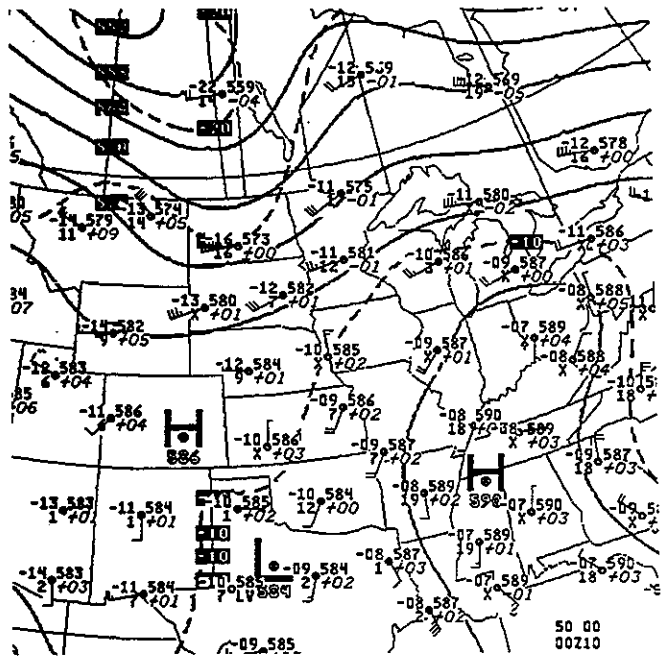
NO	TIME	EVENT	ST	LOCATION	
1	1707	2.00 INCH HAIL	CO	5 W EVERGREEN	(27 WSW DEN)
2	1716	98 MPH WIND GUST	CO	35 E GROVER	(29 WSW SNY)
3	1740	TORNADO (F-3) three million dollars damage	NE	MINATURE	(6 ESE BFF)



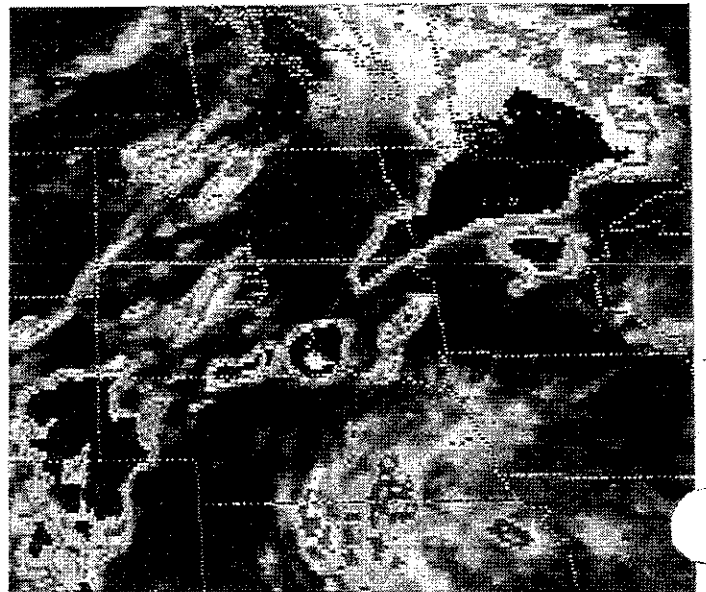
Composite 6PM CST June 9, 1991



Surface 6PM CST June 9, 1991



500MB 6PM CST June 9, 1991

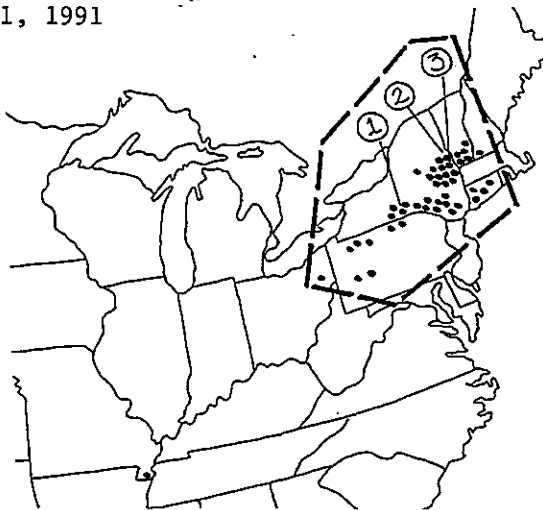


GOES 4PM CST June 9, 1991

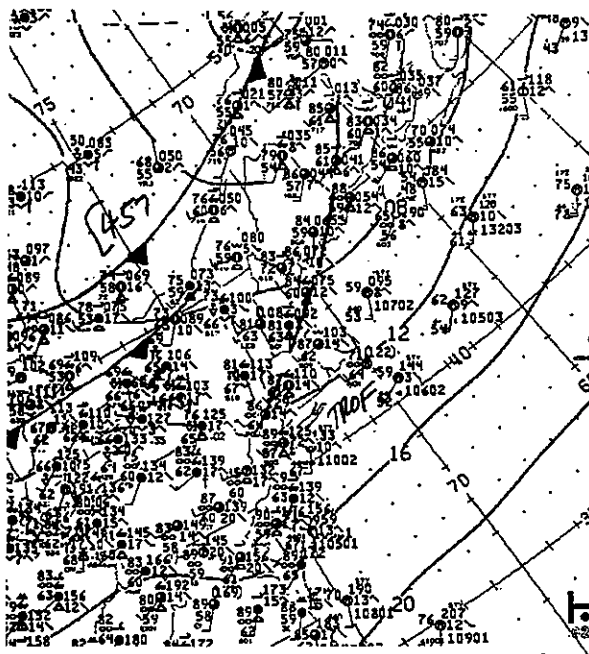
\*\*\* 44 SEVERE REPORTS \*\*\*

\*\*\* 1250-1930 CST \*\*\*

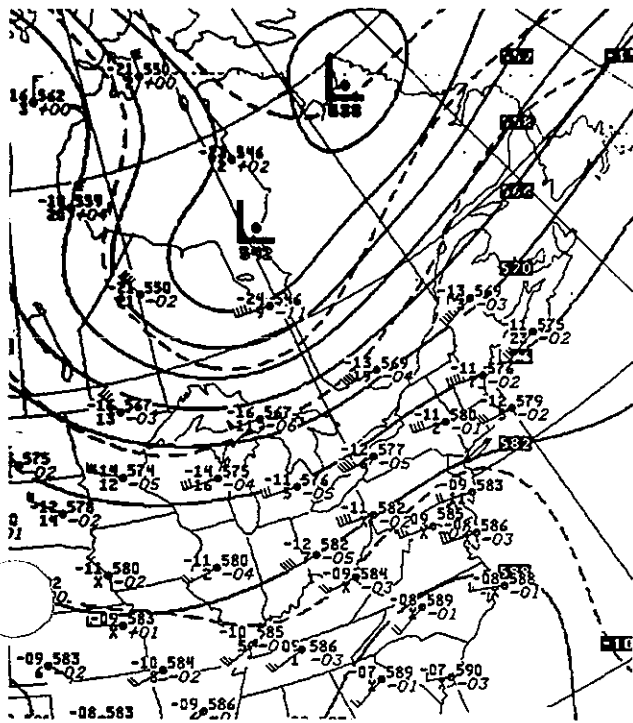
NO	TIME	EVENT	ST	LOCATION	
1	1428	WIND DAMAGE one injury	NY	MAINE	(4 W BGM)
2	1445	1.75 INCH HAIL	NY	CAMBRIDGE	(23 SSE GFL)
3	1505	1.75 INCH HAIL	VT	SHAFTSBURY	(31 SE GFL)



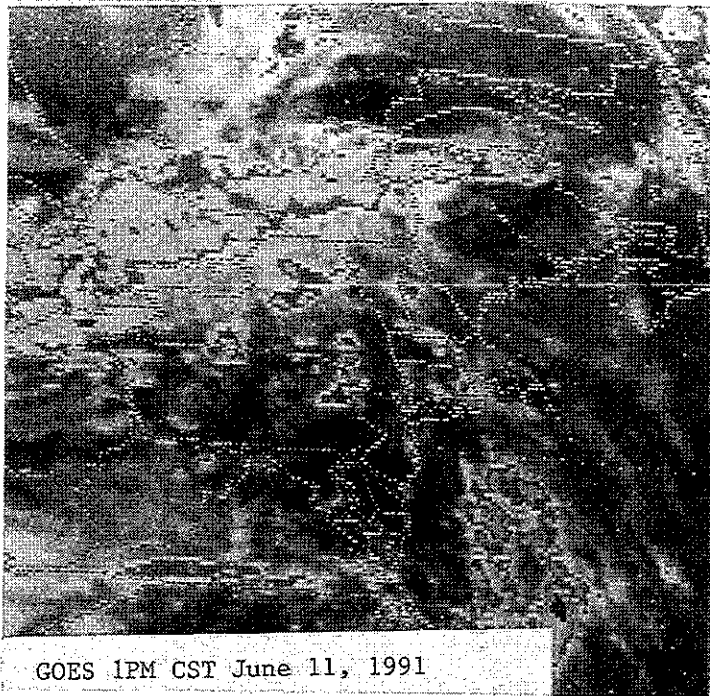
Composite 6AM CST June 11, 1991



Surface 12 Noon CST June 11, 1991



500MR 6AM CST June 11, 1991



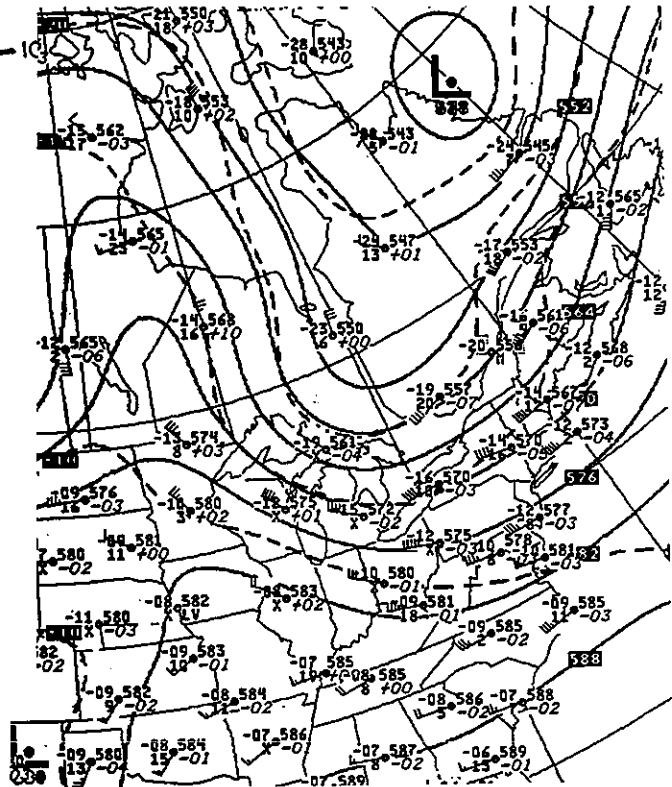
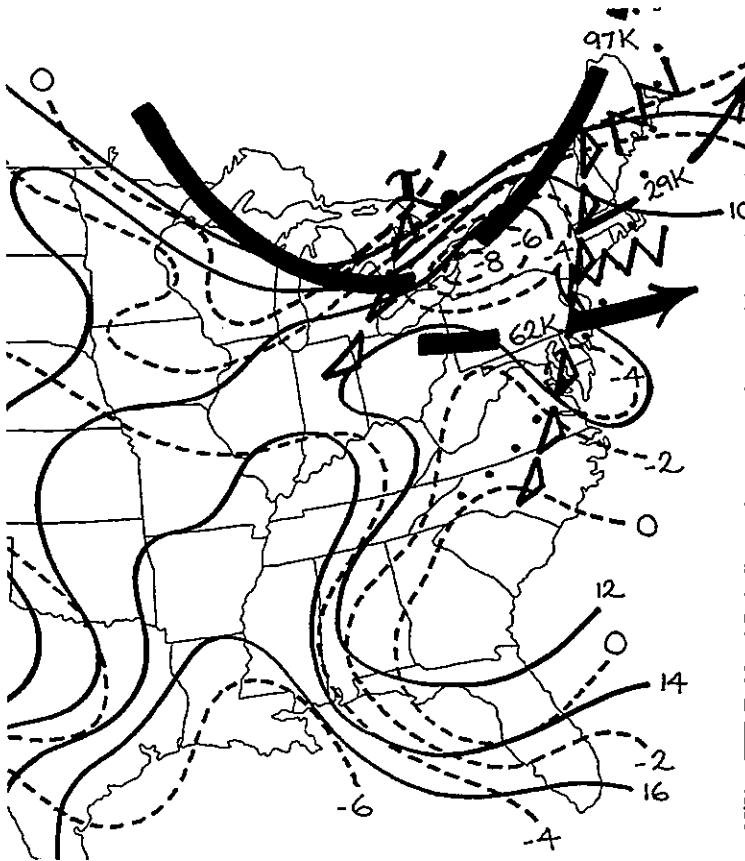
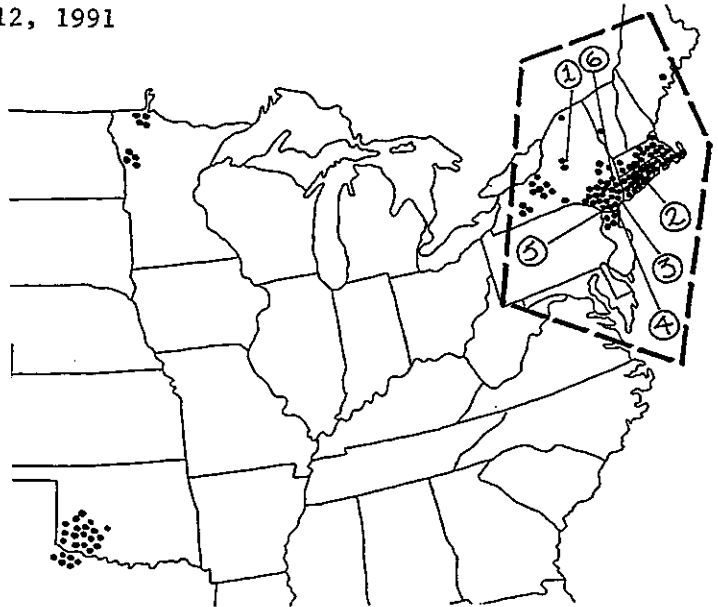
GOES 1PM CST June 11, 1991

\*\*\* 83 SEVERE REPORTS \*\*\*

\*\*\* 1 TORNADO \*\*\*

\*\*\* 0705-1625 CST \*\*\*

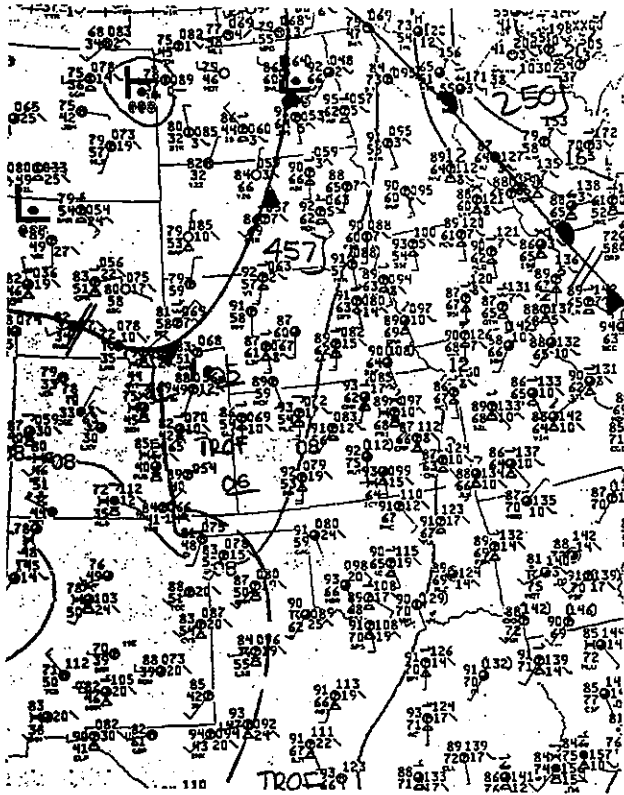
NO	TIME	EVENT	ST	LOCATION	
1	1005	1.75 INCH HAIL	NY	32 ESE UTICA	(32 ESE UCA)
2	1400	60 MPH WIND GUST one injury	CT	WETHERSFIELD	( 2 SSW HFD)
3	1410	TORNADO (F-0) one death	NY	BRIARCLIFFE MANOR	(10 NNW HPN)
4	1450	WIND DAMAGE one death, two injuries	NY	NEW ROCHELLE	(11 NE LGA)
5	1455	WIND DAMAGE one injury, more than half a million dollars damage	NY	WHITE PLAINS	( HPN)
6	1500	80 MPH WIND GUST	NY	CROTON ON HUDSON	(29 S POU)



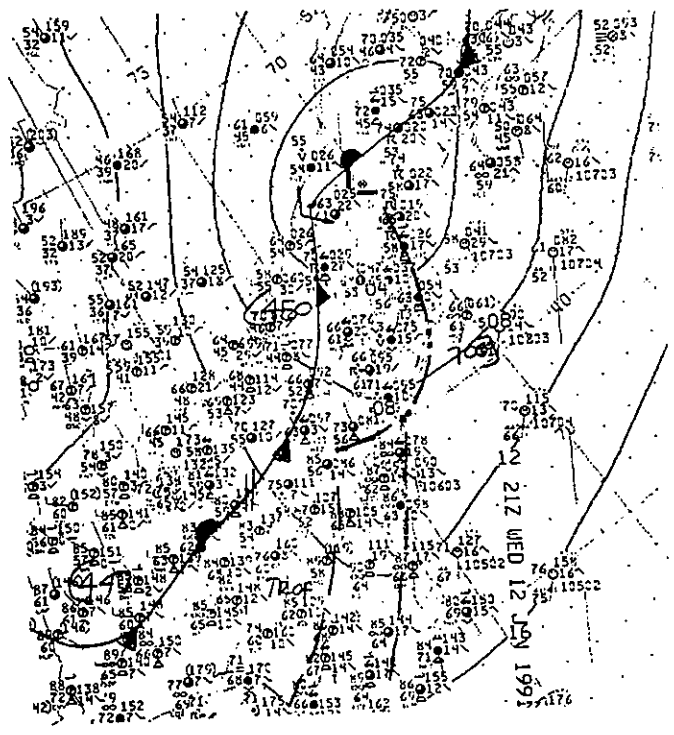
Composite 6AM CST June 12, 1991

500MB 6AM CST June 12, 1991

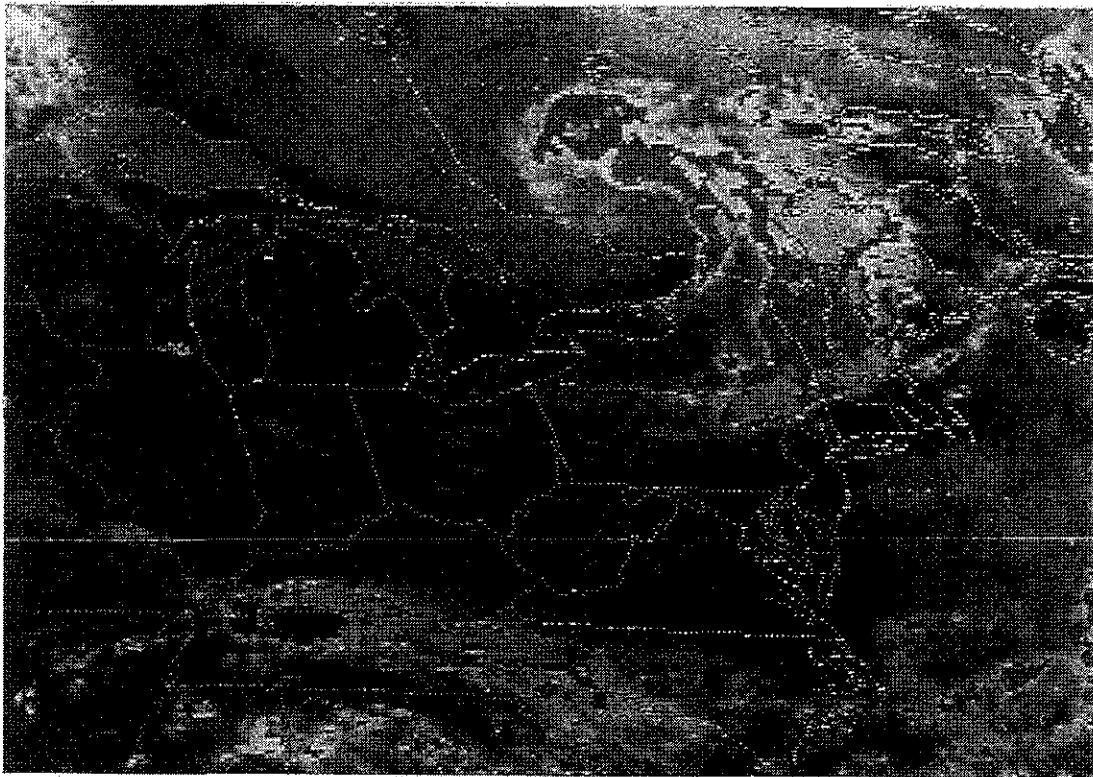




Surface 12 Noon CST June 12, 1991



Surface 12 Noon CST June 12, 1991



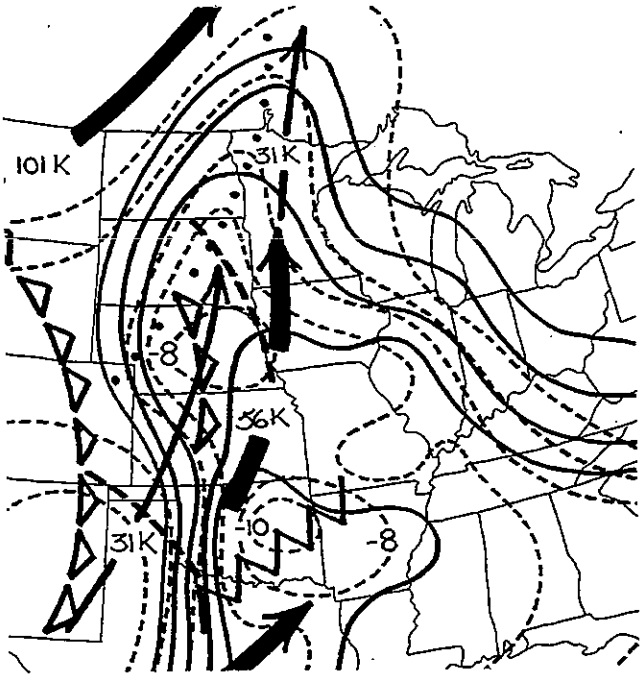
GOES 1PM CST June 12, 1991

\*\*\* 51 SEVERE REPORTS \*\*\*

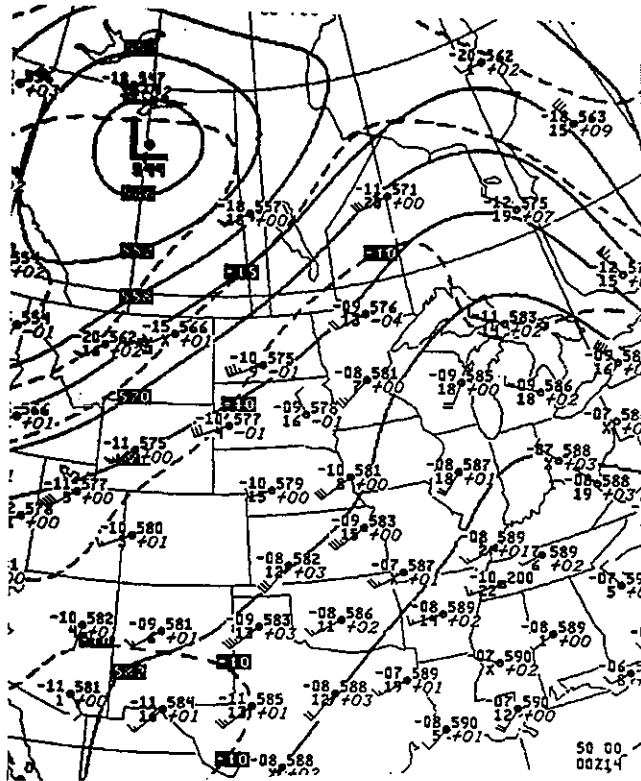
\*\*\* 3 TORNADOES \*\*\*

\*\*\* 1215-2220 CST \*\*\*

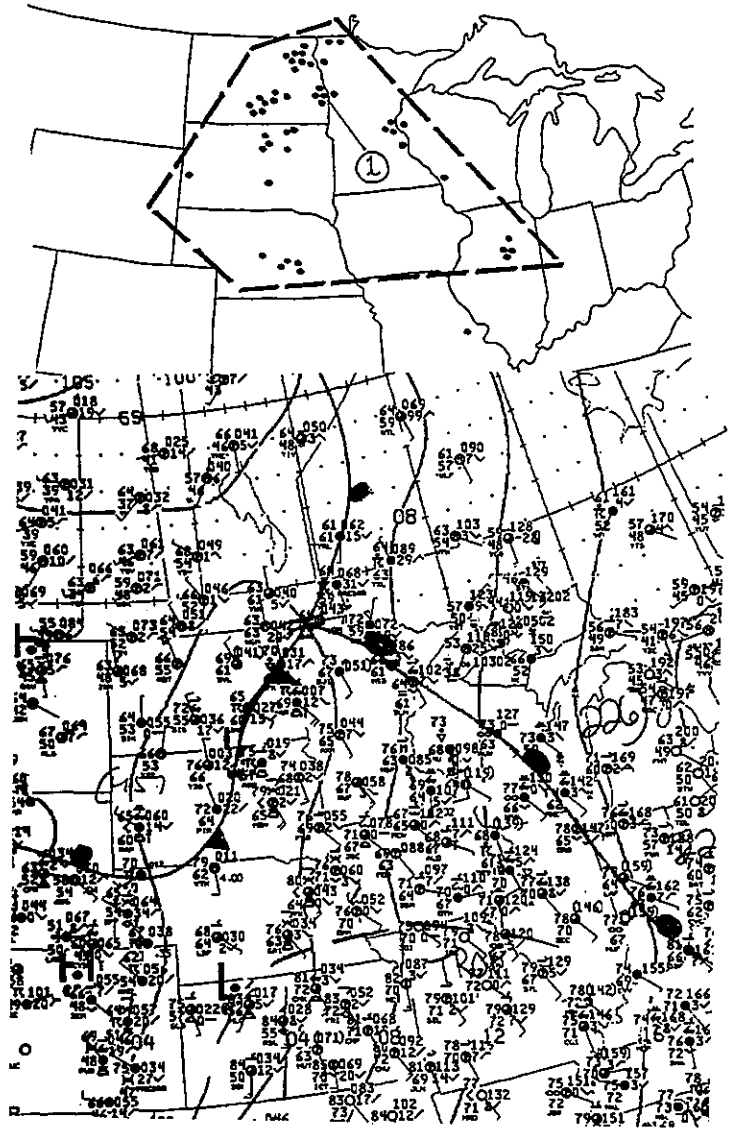
NO	TIME	EVENT	ST	LOCATION	(	FAR)
1	2058	66 MPH WIND GUST	ND	FARGO AIRPORT	(	FAR)



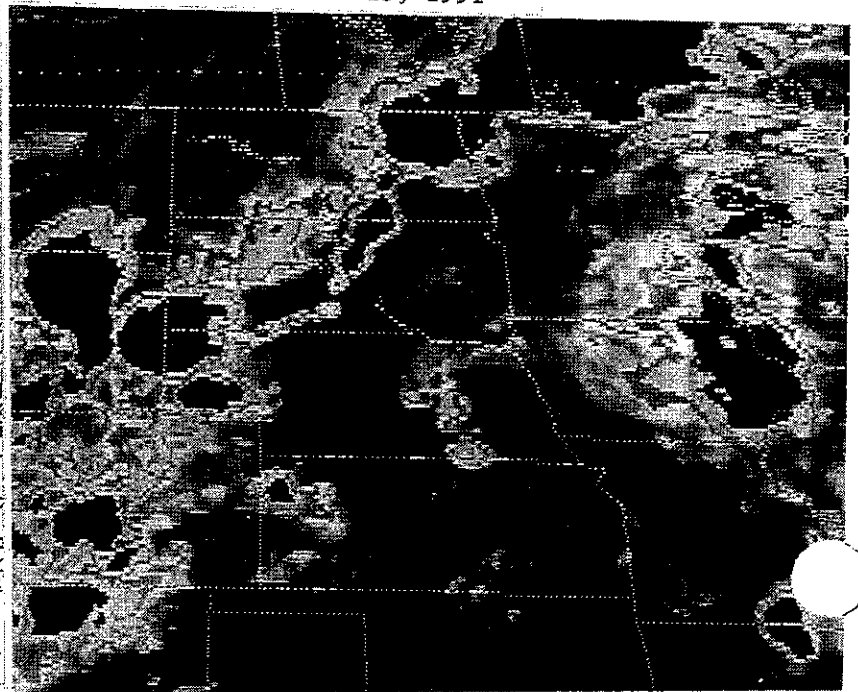
Composite 6PM CST June 13, 1991



500MB 6PM CST June 13, 1991



Surface 6PM CST June 13, 1991



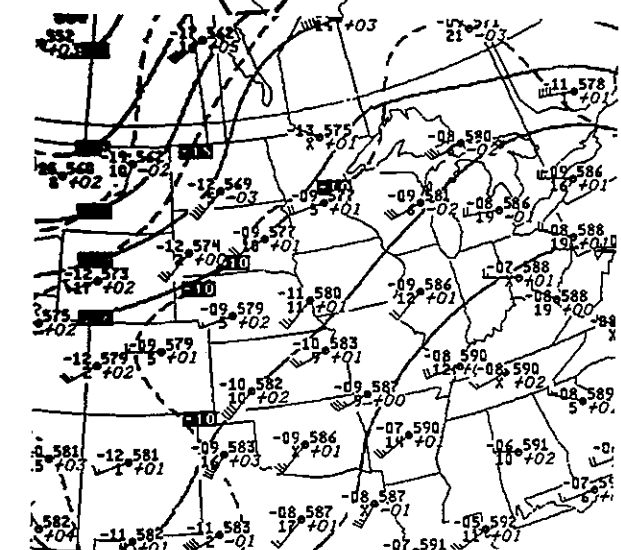
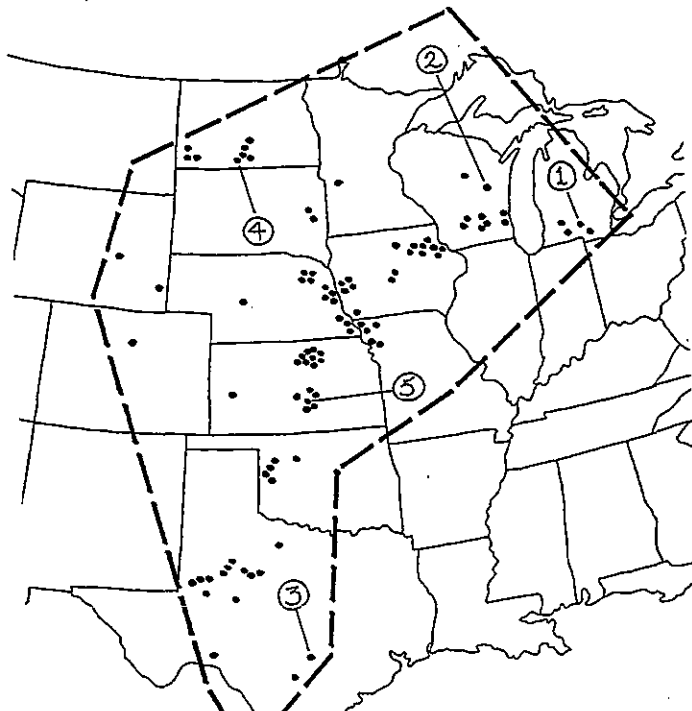
138 GOES 6PM CST June 13, 1991

\*\*\* 89 SEVERE REPORTS \*\*\*

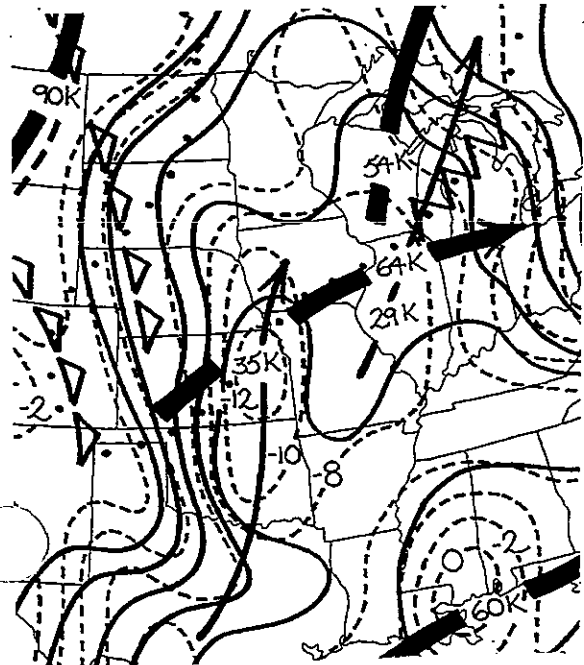
\*\*\* 9 TORNADOES \*\*\*

\*\*\* 1205-0100 CST \*\*\*

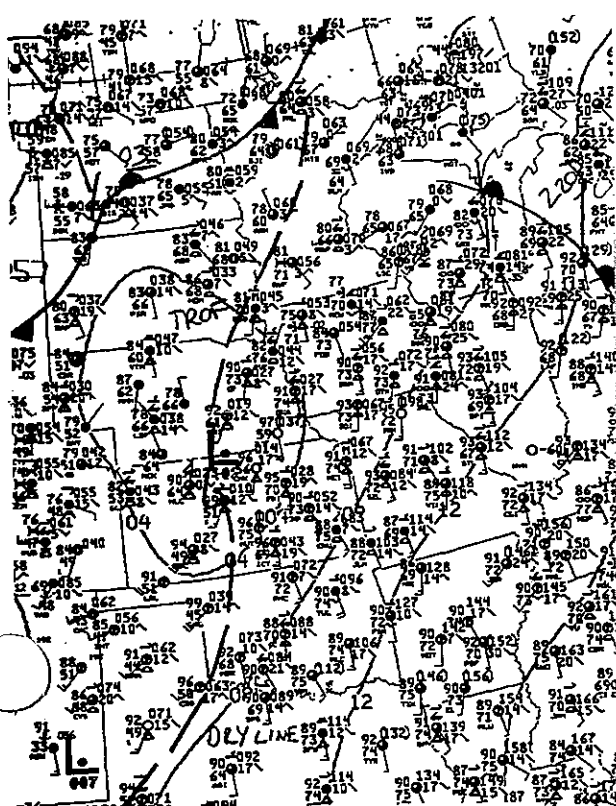
NO	TIME	EVENT	ST	LOCATION	
1	1555	TORNADO (F-1) one injury	MI	PLEASANT LAKE	(11 NE JKN)
2	1630	2.75 INCH HAIL	WI	BRANDON	(20 SW OSH)
3	1644	2.75 INCH HAIL	TX	NEW BRAUNFELS	(23 ENE SAT)
4	1700	2.75 INCH HAIL	ND	CARSON	(45 WSW BIS)
5	1950	80 MPH WIND GUST	KS	WICHITA	( ICT)



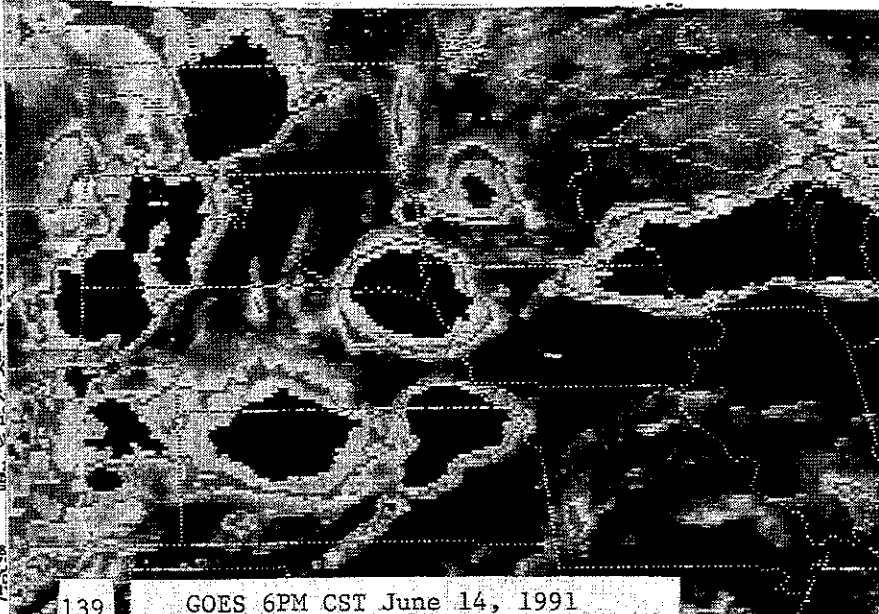
500MB 6 PM CST June 14, 1991



Composite 6PM CST June 14, 1991



Surface 3PM CST June 14, 1991



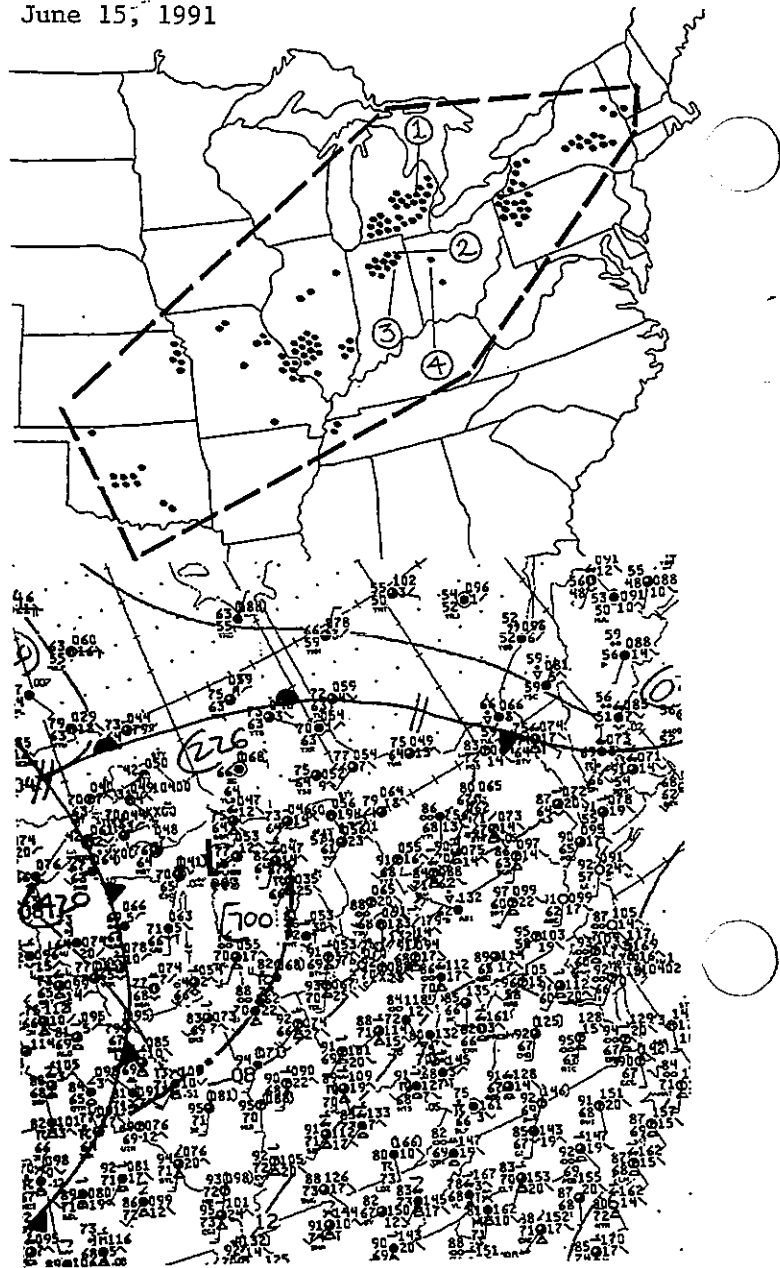
GOES 6PM CST June 14, 1991

\*\*\* 119 SEVERE REPORTS \*\*\*

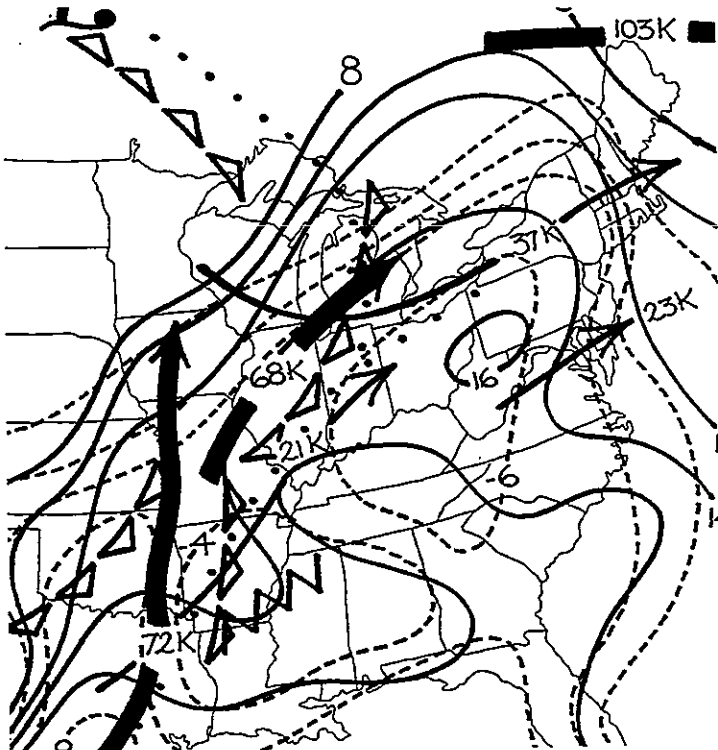
\*\*\* 7 TORNADES \*\*\*

\*\*\* 1215-0130 CST \*\*\*

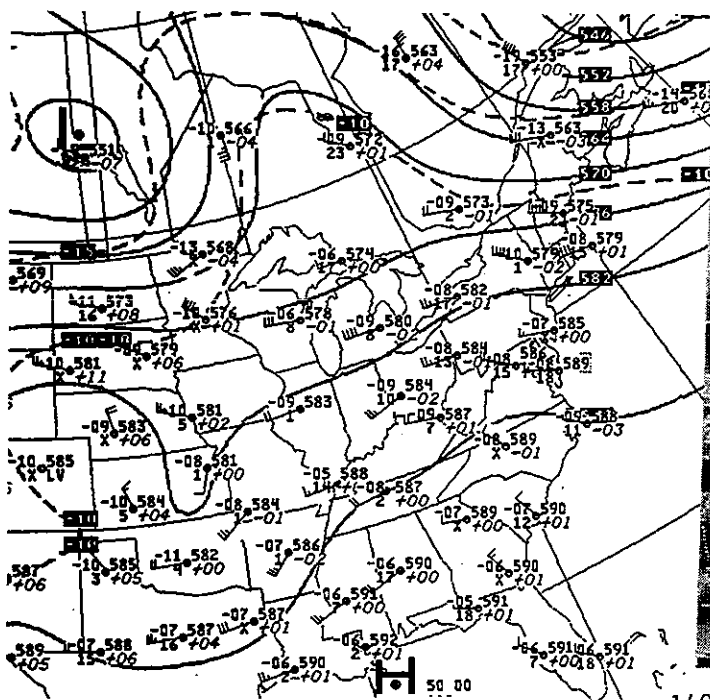
NO	TIME	EVENT	ST	LOCATION	
1	1555	76 MPH WIND GUST	MI	FLINT	( FNT)
2	1605	WIND DAMAGE three injuries	IN	WARSAW	(40 SE SBN)
3	1710	WIND DAMAGE one injury	IN	FORT WAYNE	( FWA)
4	1910	WIND DAMAGE two injuries	OH	KANSAS	(26 ENE FDY)



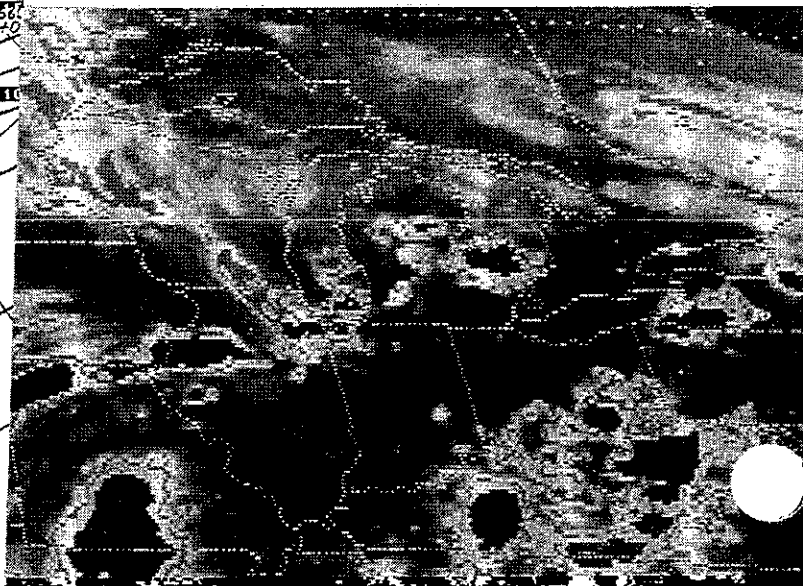
Surface 3PM CST June 15, 1991



Composite 6PM CST June 15, 1991



500MB 6PM CST June 15, 1991



140 GOES 2PM CST June 15, 1991

\*\*\* 28 SEVERE REPORTS \*\*\*

\*\*\* 6 TORNADOES \*\*\*

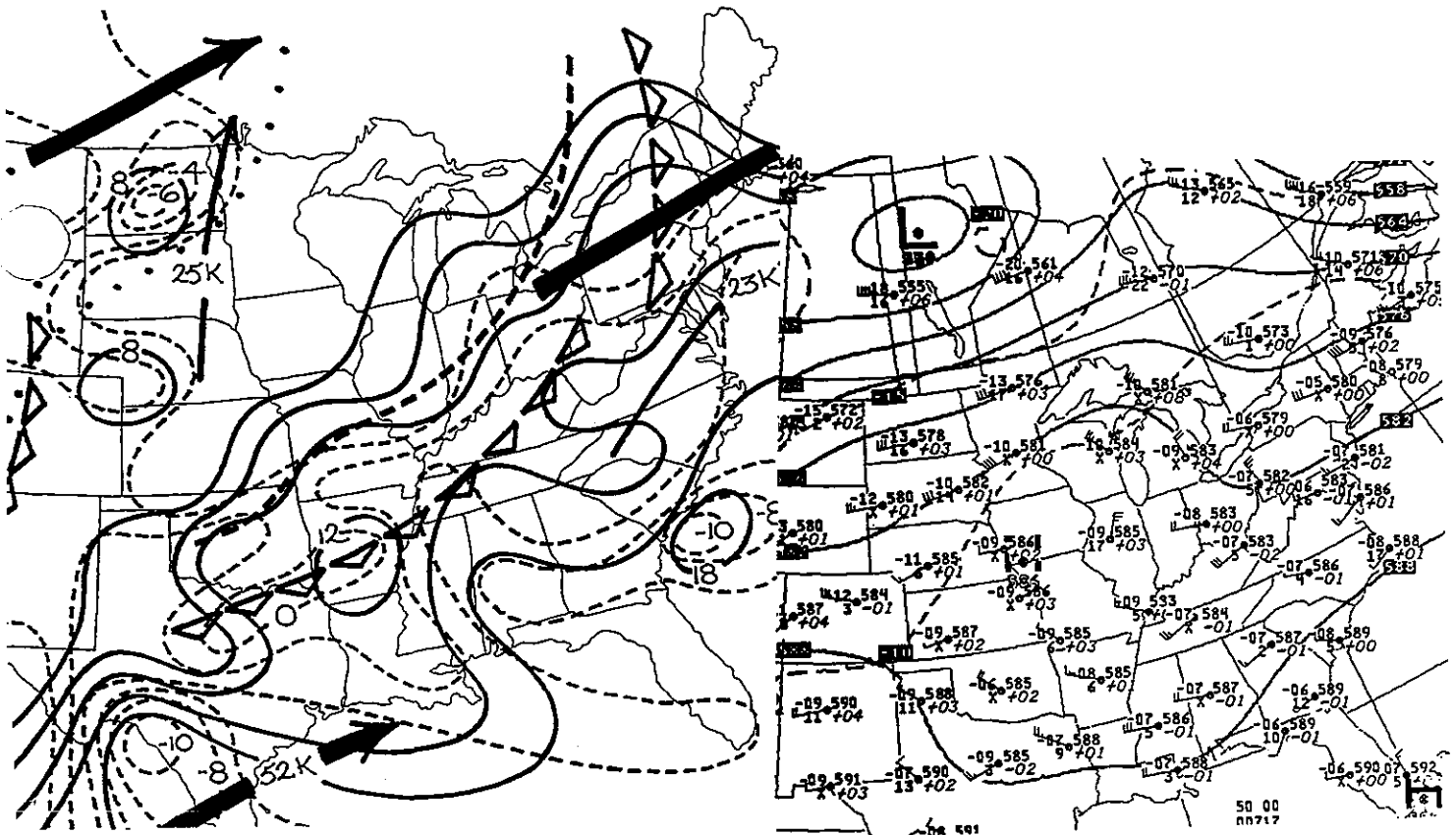
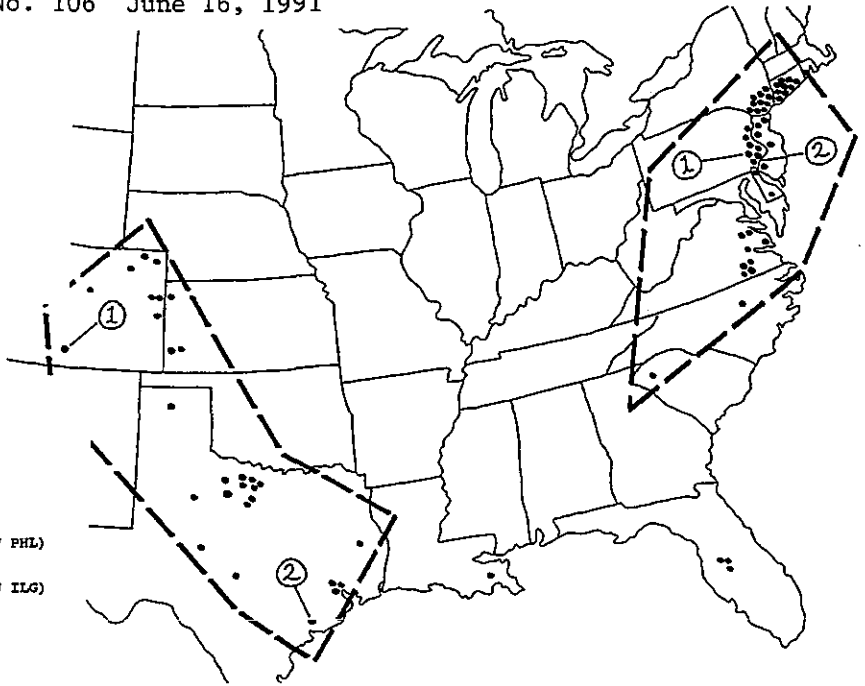
\*\*\* 1317-2230 CST \*\*\*

TIME	EVENT	ST	LOCATION	
1 1420	TORNADO (F-1)	CO	3 NW SAGUACHE	(46 NNW ALS)
2 2215	TORNADO (F-0) two injuries	TX	EDNA	(18 ENE VCT)

\*\*\* 43 SEVERE REPORTS \*\*\*

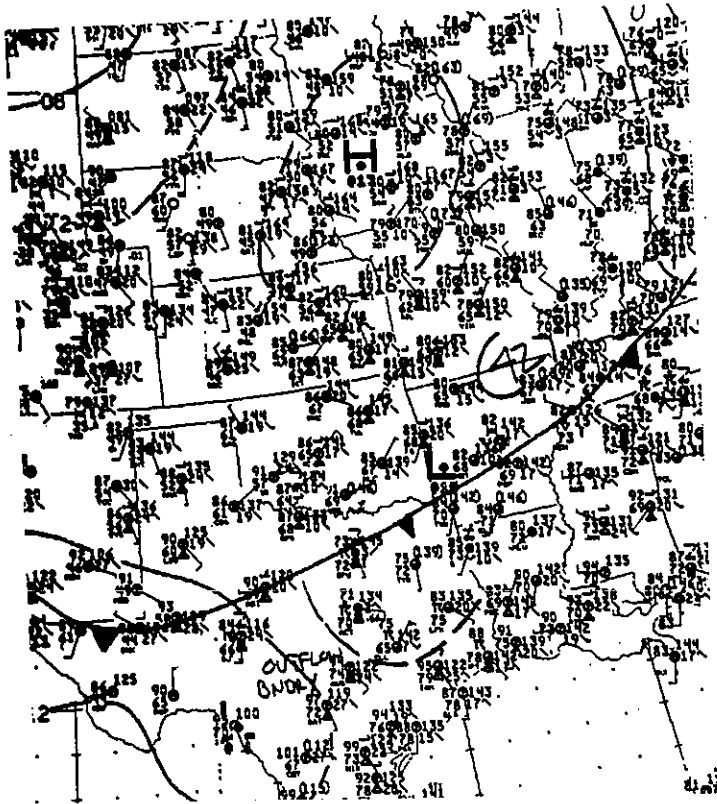
\*\*\* 1200-1947 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1425	WIND DAMAGE	PA	RADHOR	(12 NNW PHL)
2	1937	75 MPH WIND GUST	PA	NOTTINGHAM	(22 WNW ILS)

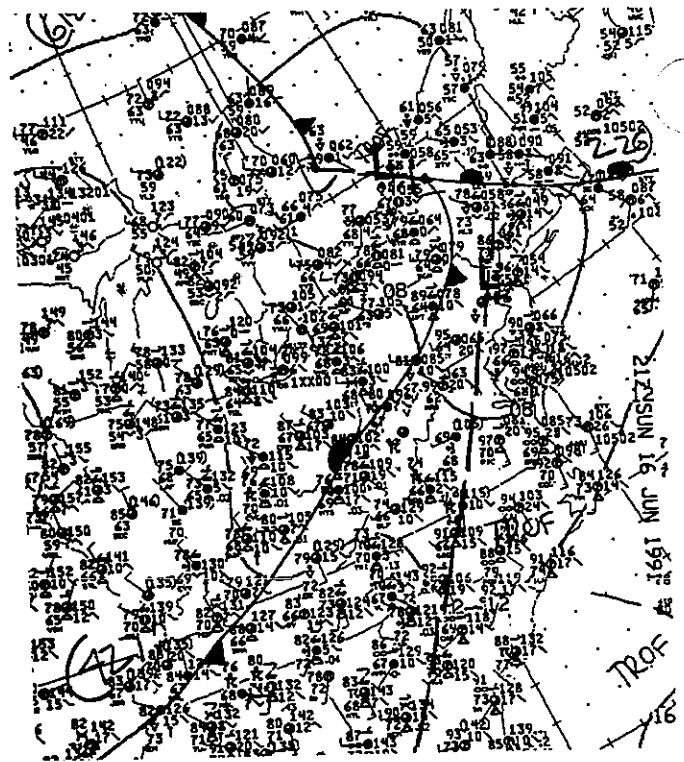


Composite 6PM CST June 16, 1991

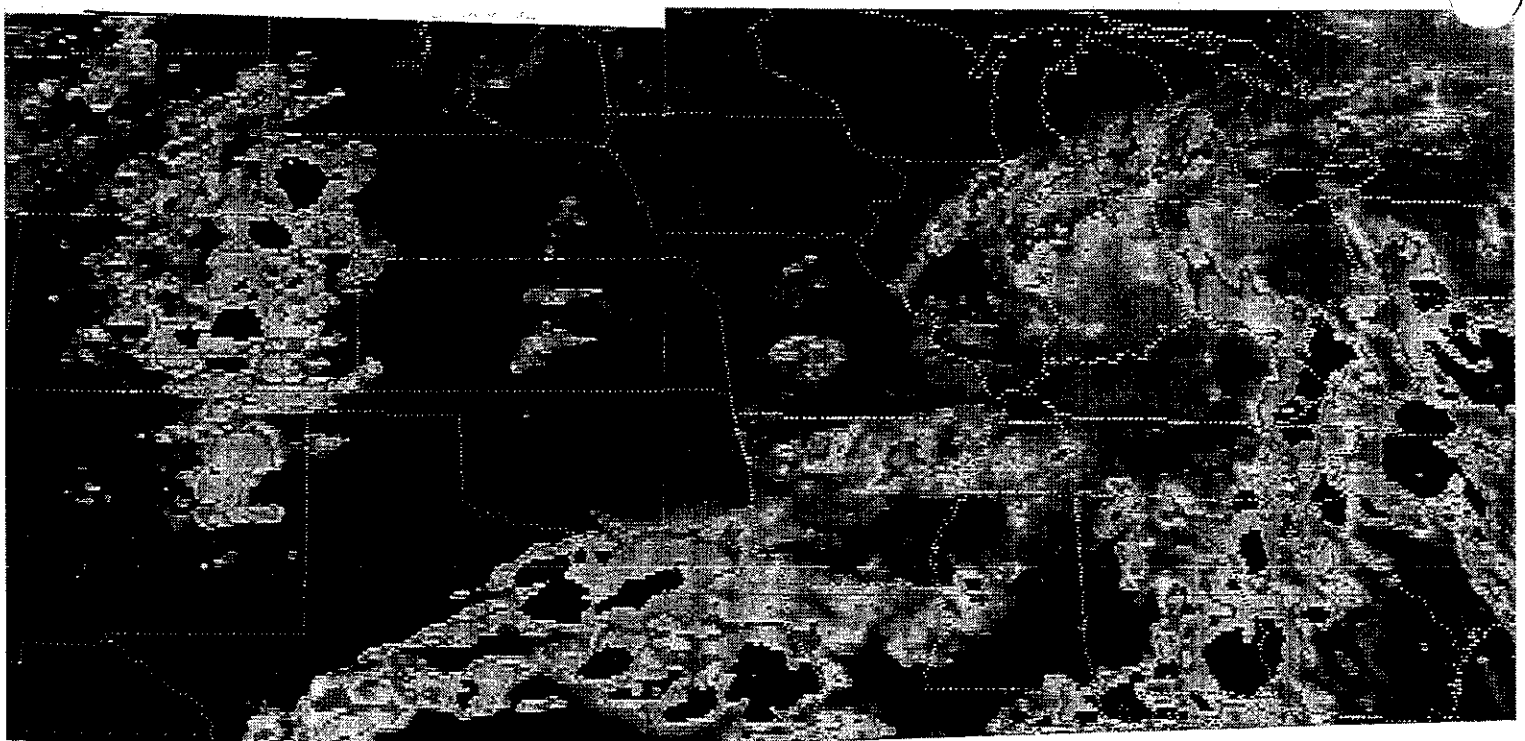
500MB 6PM CST June 16, 1991



Surface 3PM CST June 16, 1991



Surface 3PM CST June 16, 1991



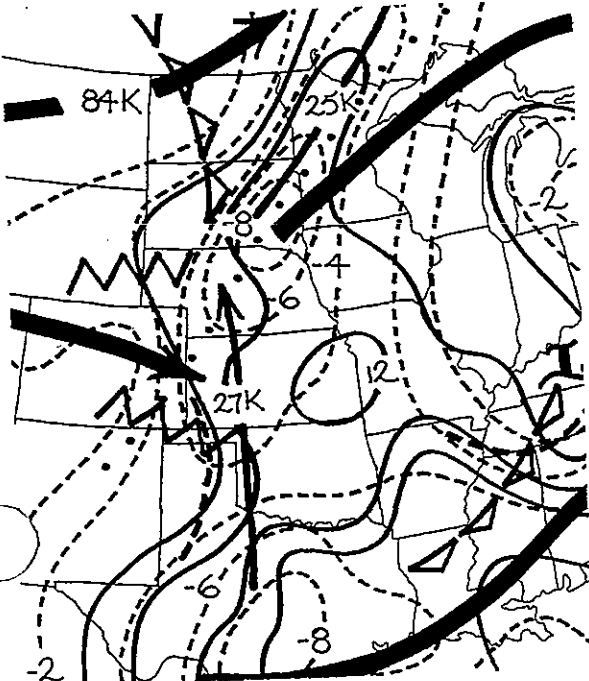
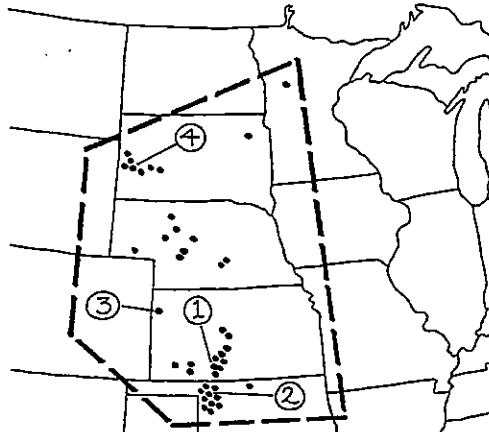
GOES 4PM CST June 16, 1991

\*\*\* 52 SEVERE REPORTS \*\*\*

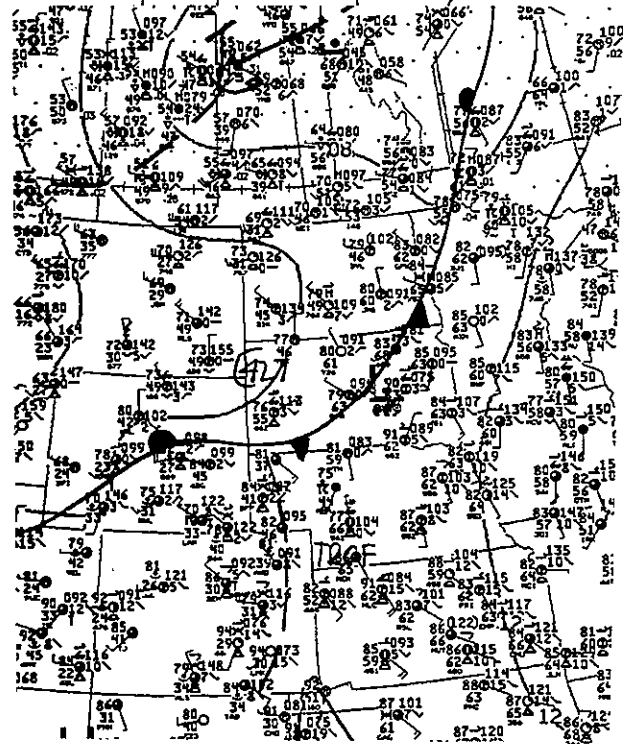
\*\*\* 2 TORNADOES \*\*\*

\*\*\* 1505-0545 CST \*\*\*

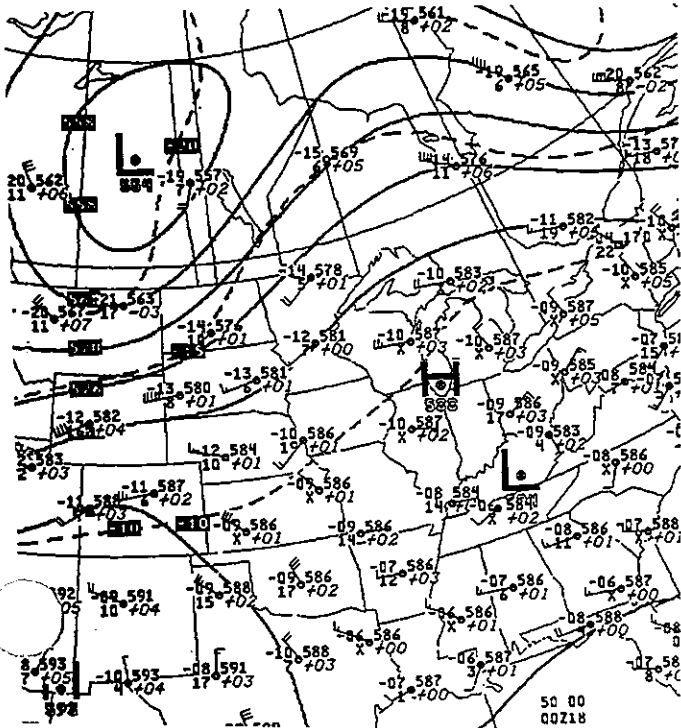
NO	TIME	EVENT	ST	LOCATION	
1	1705	2.00 INCH HAIL	KS	10 SE ASHLAND	(52 SSE DDC)
2	1900	70 MPH WIND GUST	OK	9 S BUFFALO	(27 NNE GAG)
3	1940	70 MPH WIND GUST	KS	17 NW GOODLAND	(19 NW GLD)
4	0330	2.00 INCH HAIL	SD	RAPID CITY	( RAP)



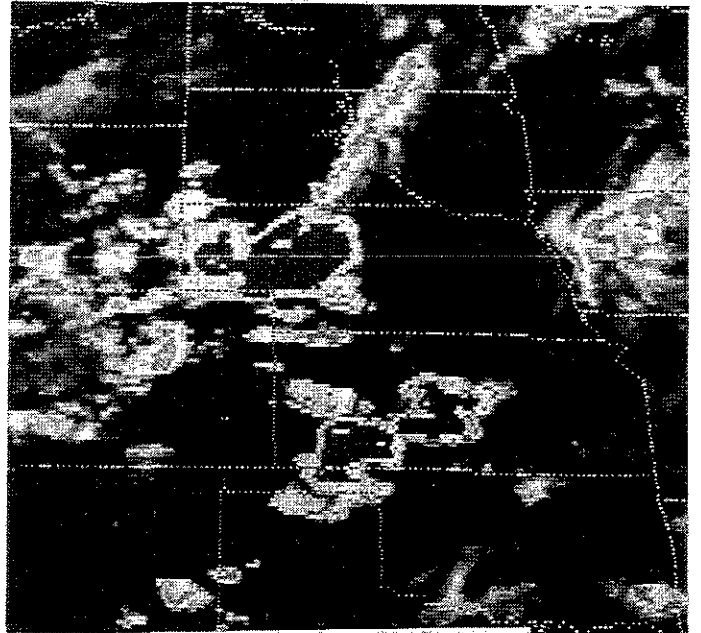
Composite 6PM CST June 17, 1991



Surface 6PM CST June 17, 1991



500MB 6PM CST June 17, 1991



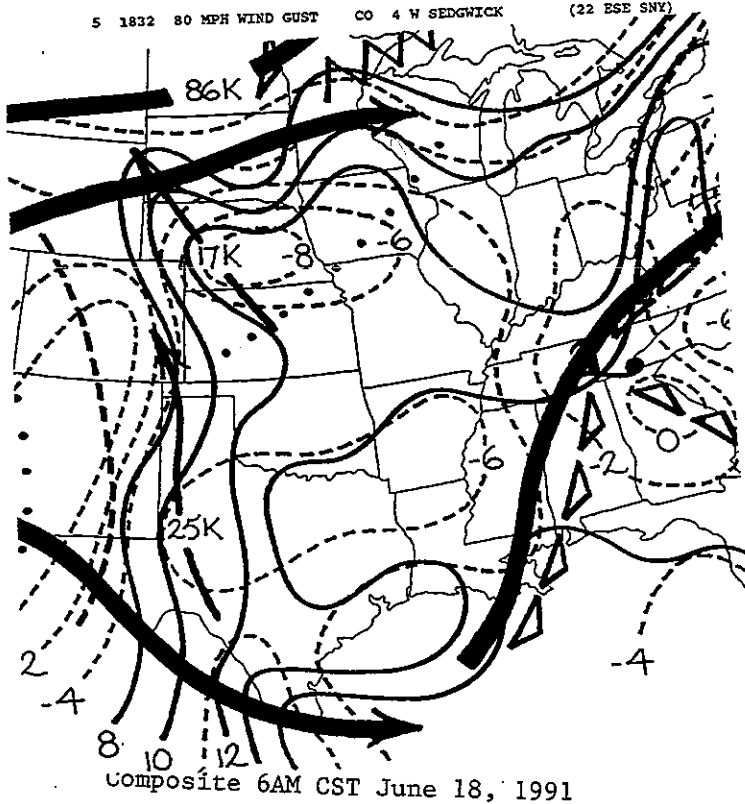
GOES 4PM CST June 17, 1991

\*\*\* 69 SEVERE REPORTS \*\*\*

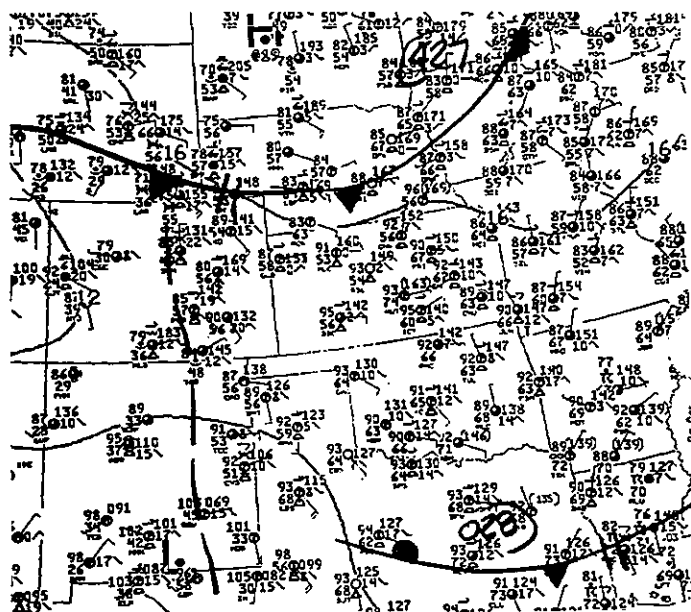
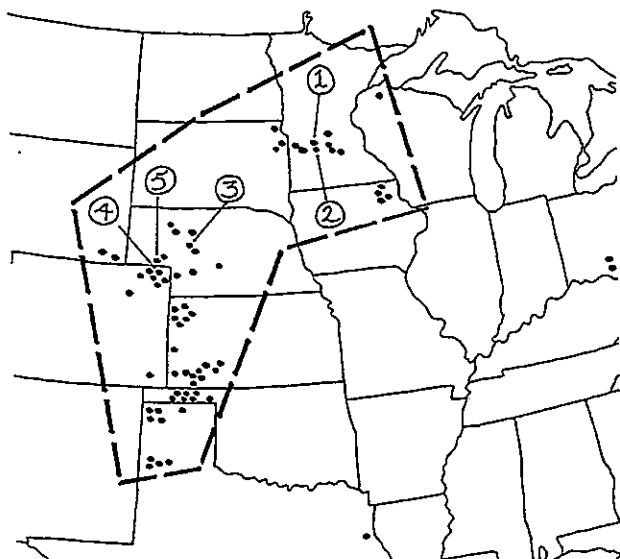
\*\*\* 8 TORNADOES \*\*\*

\*\*\* 0620-0235 CST \*\*\*

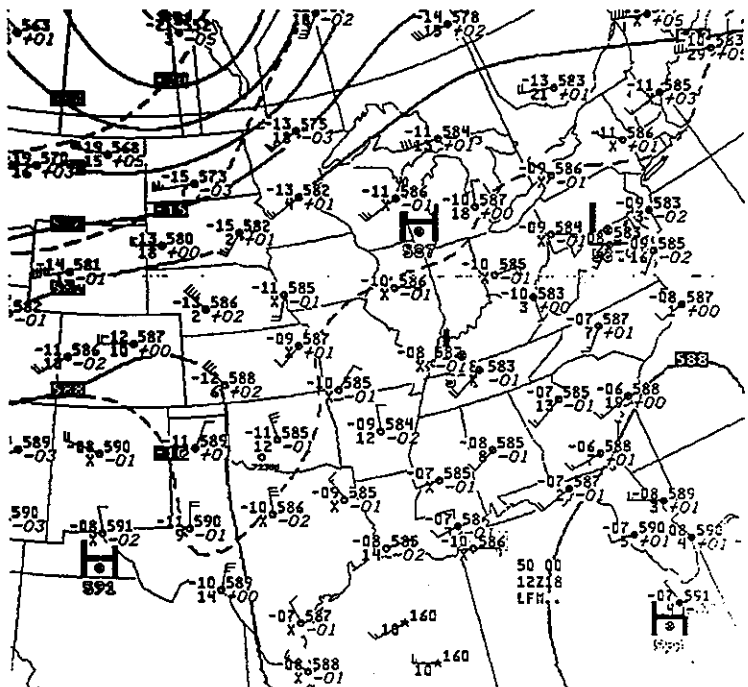
NO	TIME	EVENT	ST	LOCATION	
1	0810	2.75 INCH HAIL	MN	GROVE CITY	(41 WSW STC)
2	0814	2.75 INCH HAIL	MN	LITCHFIELD	(37 SW STC)
3	1622	2.75 INCH HAIL	NE	ASHBY	(44 W MBN)
4	1630	77 MPH WIND GUST	CO	CROOK	(19 SE SNY)
5	1832	80 MPH WIND GUST	CO	4 W SEDGWICK	(22 ESE SNY)



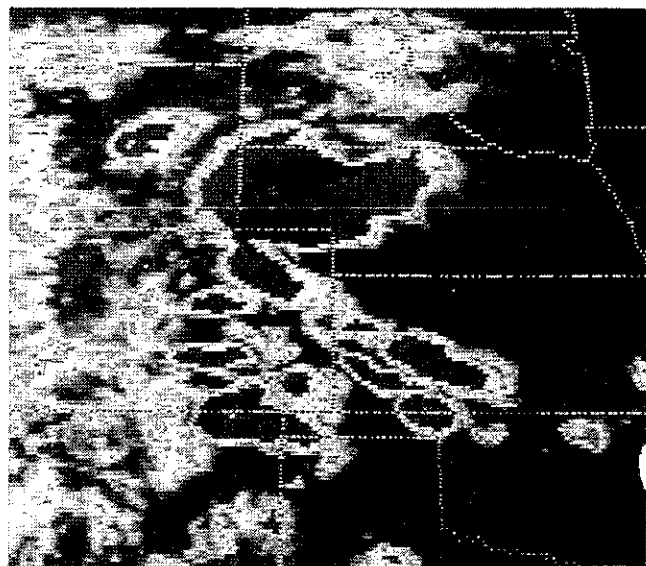
composite 6AM CST June 18, 1991



Surface 3PM CST June 18, 1991



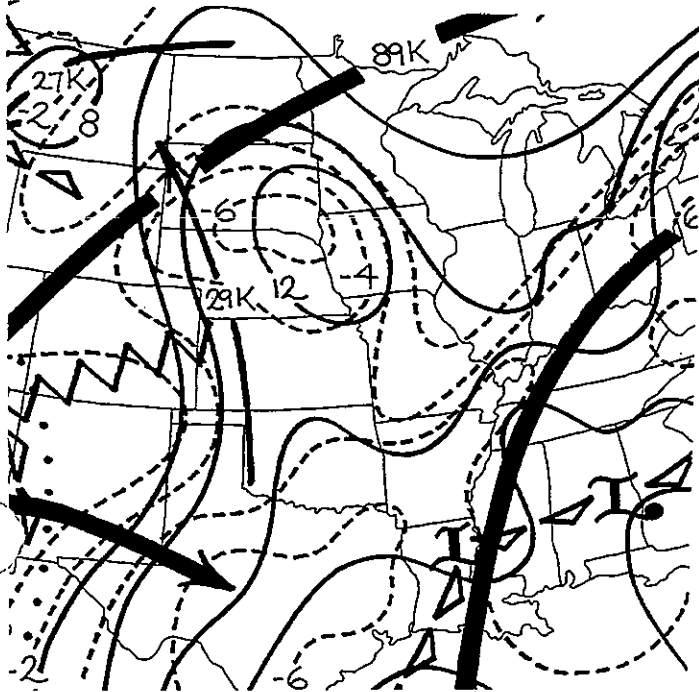
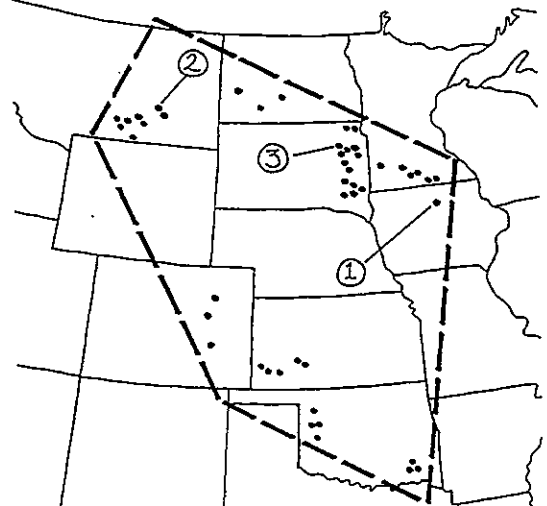
500MB 6AM CST June 18, 1991



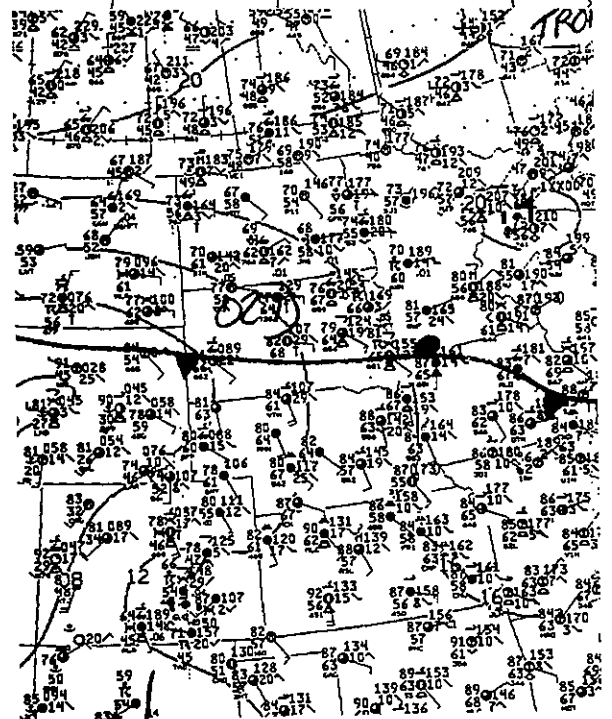
GOES 5PM CST June 18, 1991



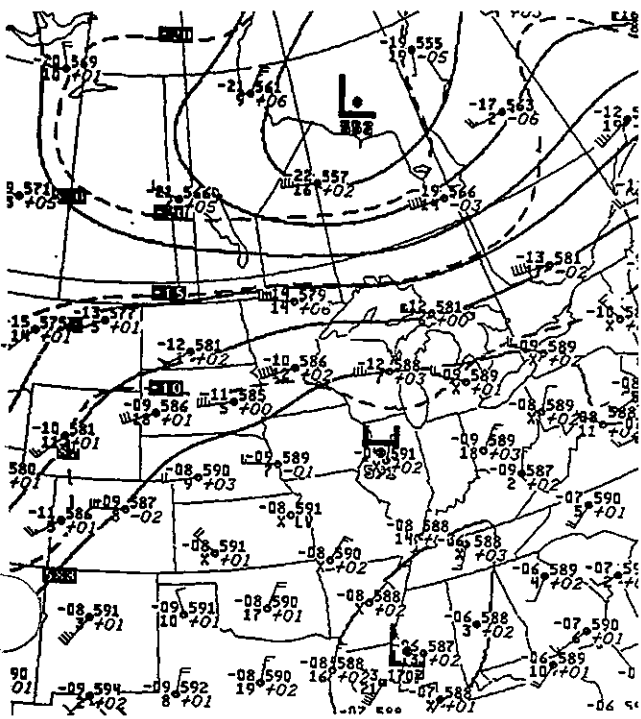
NO	TIME	EVENT	ST	LOCATION	
1	1700	80 MPH WIND GUST	IA	BELMOND	(24 SW MCW)
2	2035	2.00 INCH HAIL	MT	HYSHAM	(65 W MLS)
3	2357	78 MPH WIND GUST	SD	EDEN	(50 E ABR)



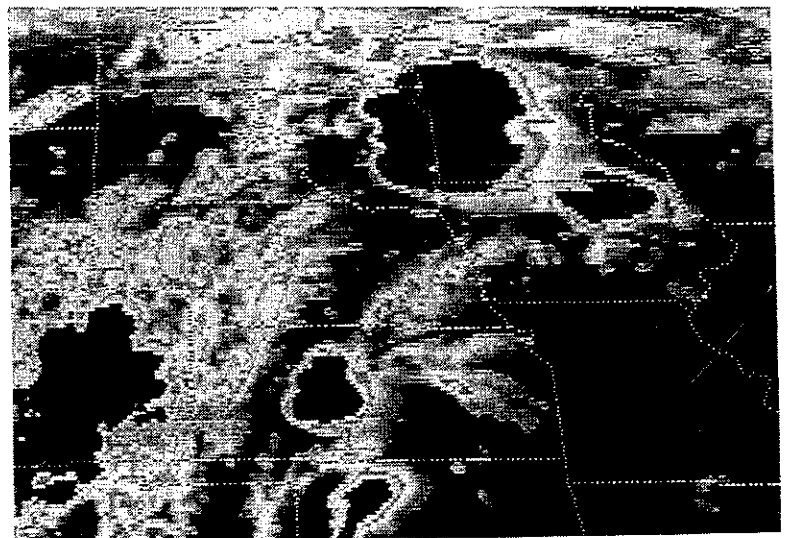
Composite 6PM CST June 19, 1991



Surface 6PM CST June 19, 1991



500MB 6PM CST June 19, 1991



145 GOES 5PM CST June 19, 1991

\*\*\* 127 SEVERE REPORTS \*\*\*

\*\*\* 9 TORNADOES \*\*\*

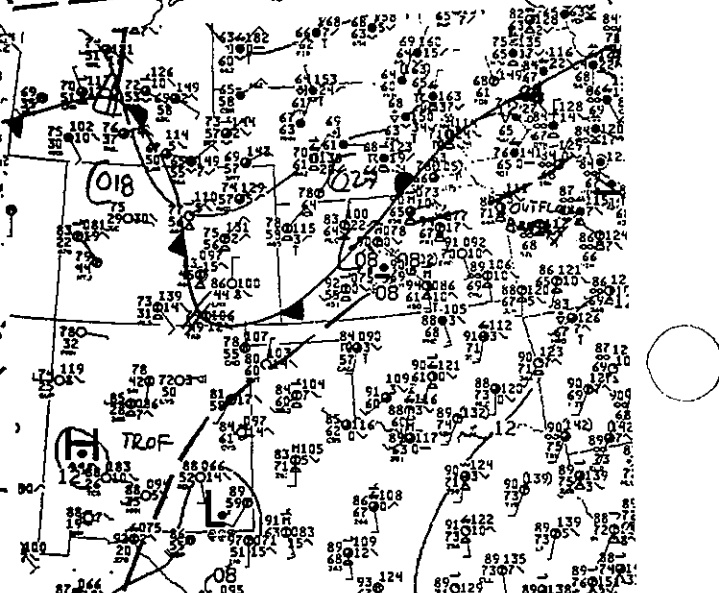
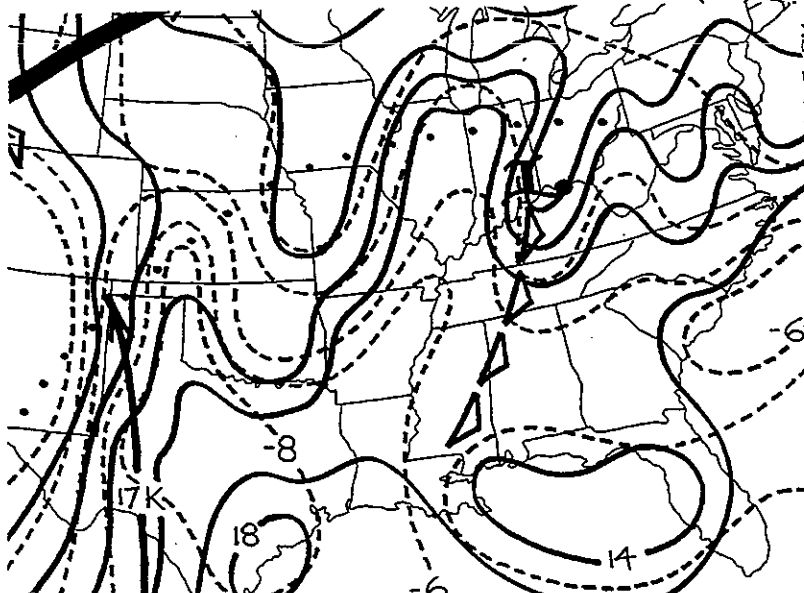
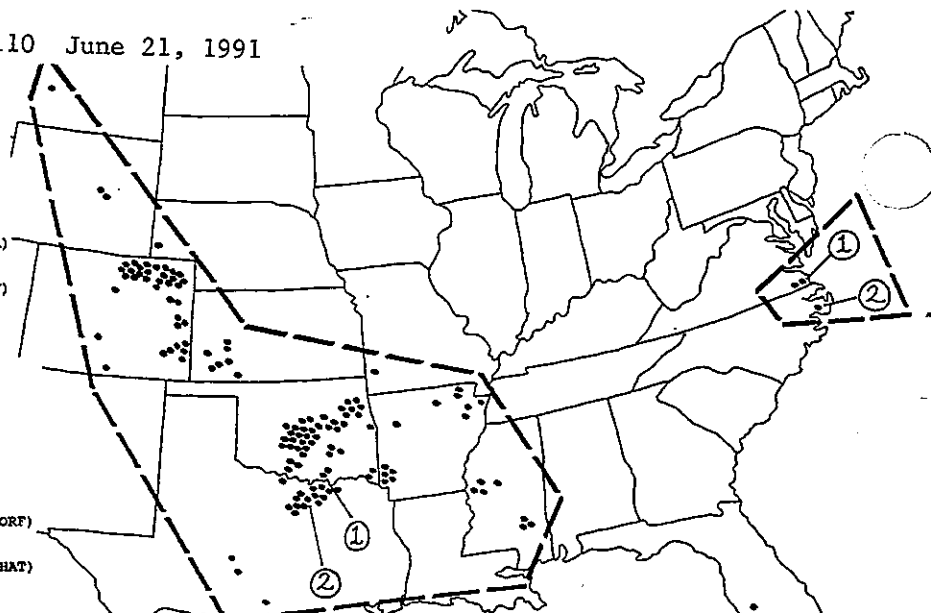
\*\*\* 1120-0132 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1857	3.00 INCH HAIL	TX	SHERMAN	(23 SW DUA)
2	2156	85 MPH WIND GUST	TX	SANGER	(39 NNE FIW)

\*\*\* 3 SEVERE REPORTS \*\*\*

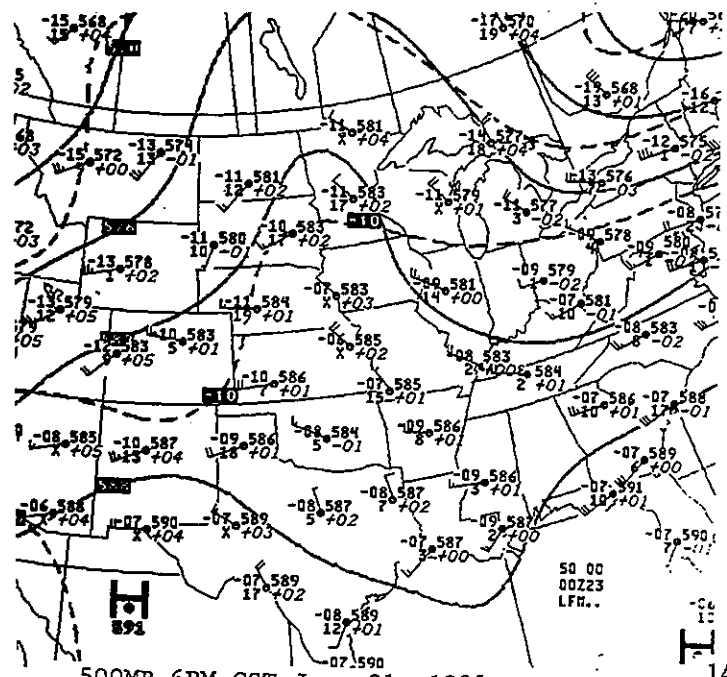
\*\*\* 1430-2129 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1430	WIND DAMAGE two injuries	VA	CHESAPEAKE	( 6 SSW ORF)
2	1655	120 MPH WIND GUST	NC	SWANQUARTER	(45 WNW HAT)



Composite 6PM CST June 21, 1991

Surface 12 Noon CST June 21, 1991



500MB 6PM CST June 21, 1991



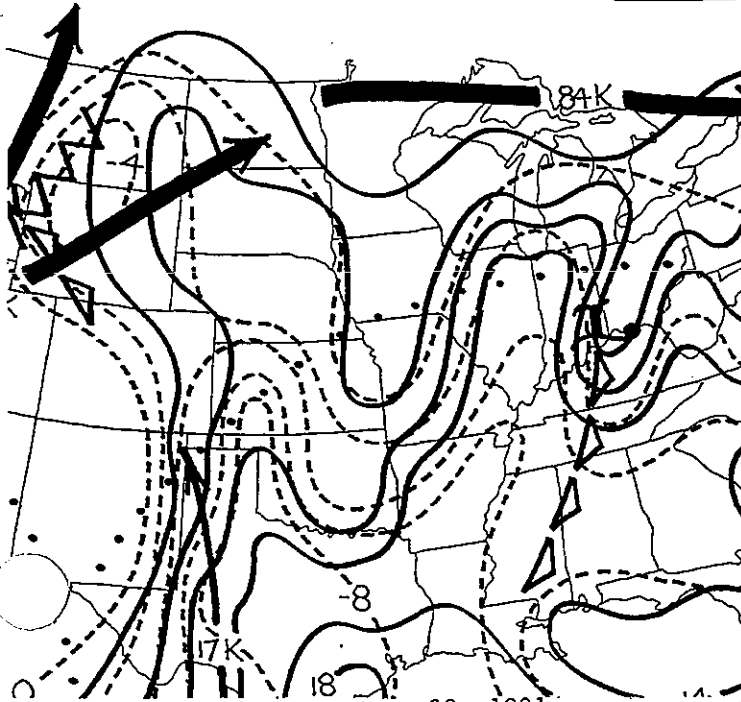
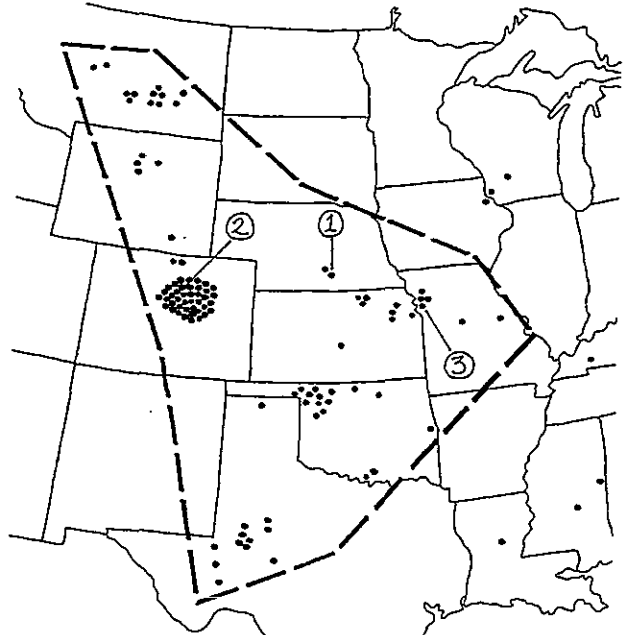
146 GOES 2PM CST June 21, 1991

\*\*\* 100 SEVERE REPORTS \*\*\*

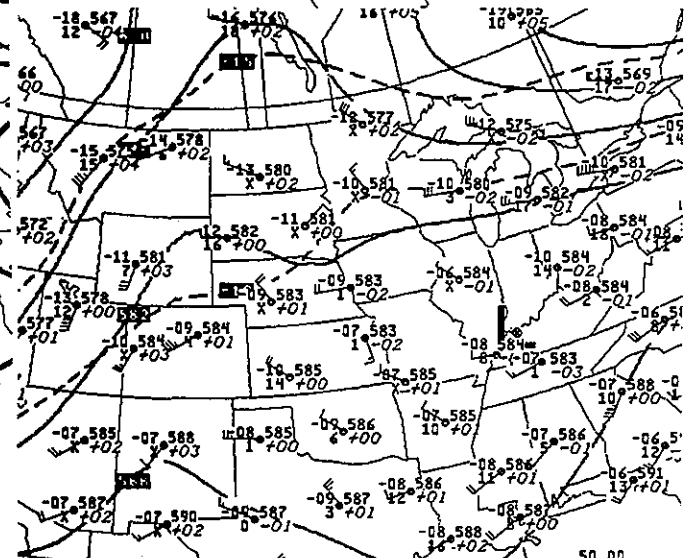
\*\*\* 19 TORNADOES \*\*\*

\*\*\* 1200-0330 CST \*\*\*

NO	TIME	EVENT	ST	LOCATION	
1	1305	1.75 INCH HAIL 1.3 million dollars crop damage	NE	4 N SARDONVILLE (26 E HSI)	
2	1330	2.50 INCH HAIL 55 million dollars damage due to hail and flooding hail up to eight inches deep 14 miles SSE of Denver	CO	DENVER (DEN)	
3	1457	98 MPH WIND GUST	MO	MUNICIPAL AIRPORT (MKC)	

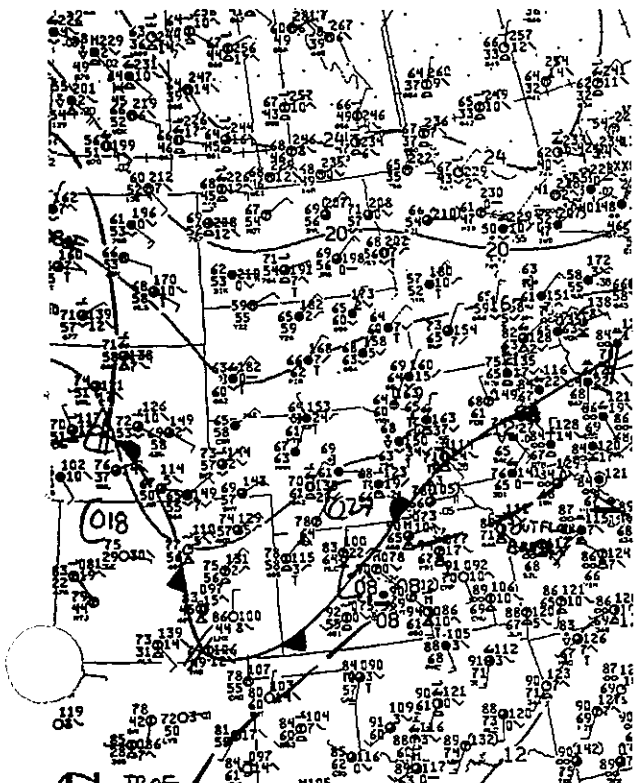


Composite 6PM CST June 22, 1991

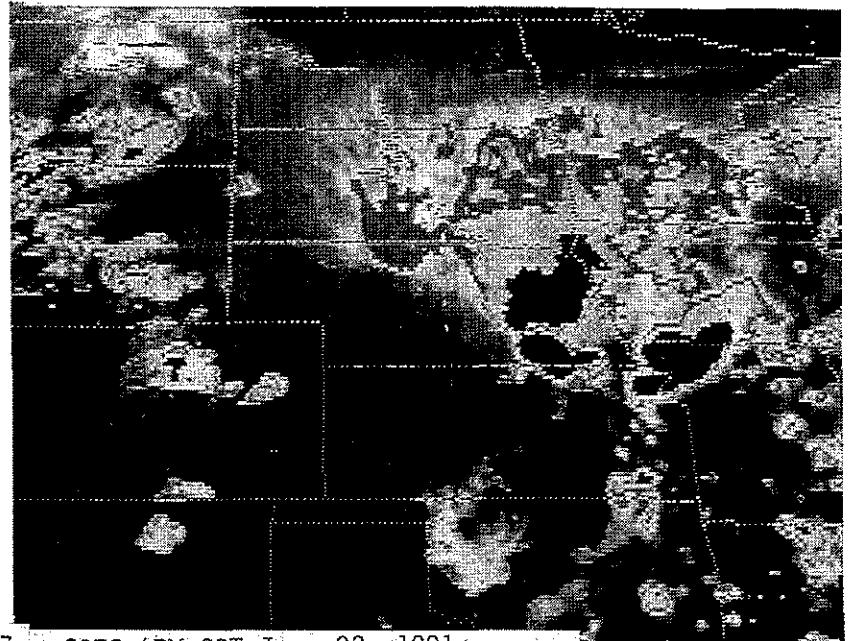


500MB 6PM CST June 22, 1991

50 00  
00222  
1FM



Surface 6PM CST June 22, 1991



147 GOES 4PM CST June 22, 1991

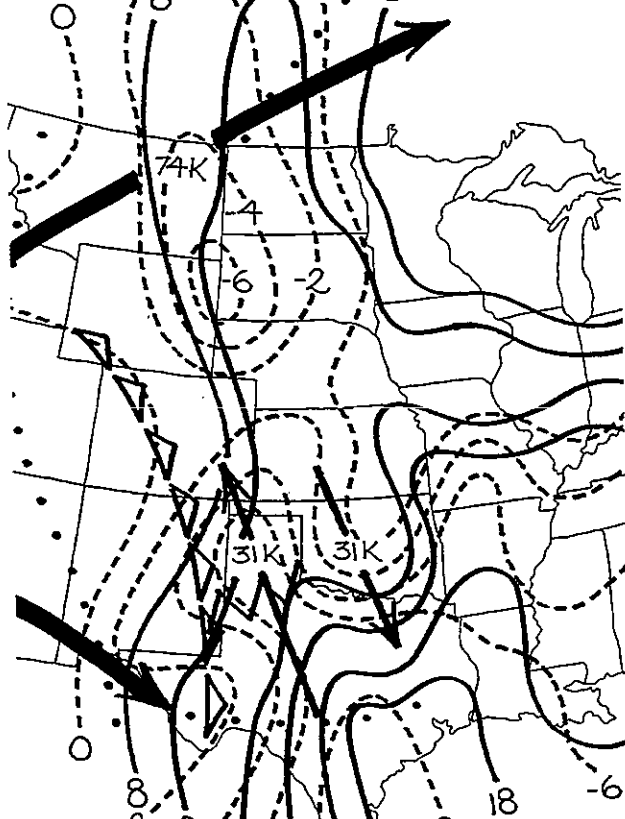
\*\*\* 38 SEVERE REPORTS \*\*\*

\*\*\* 2 TORNADOES \*\*\*

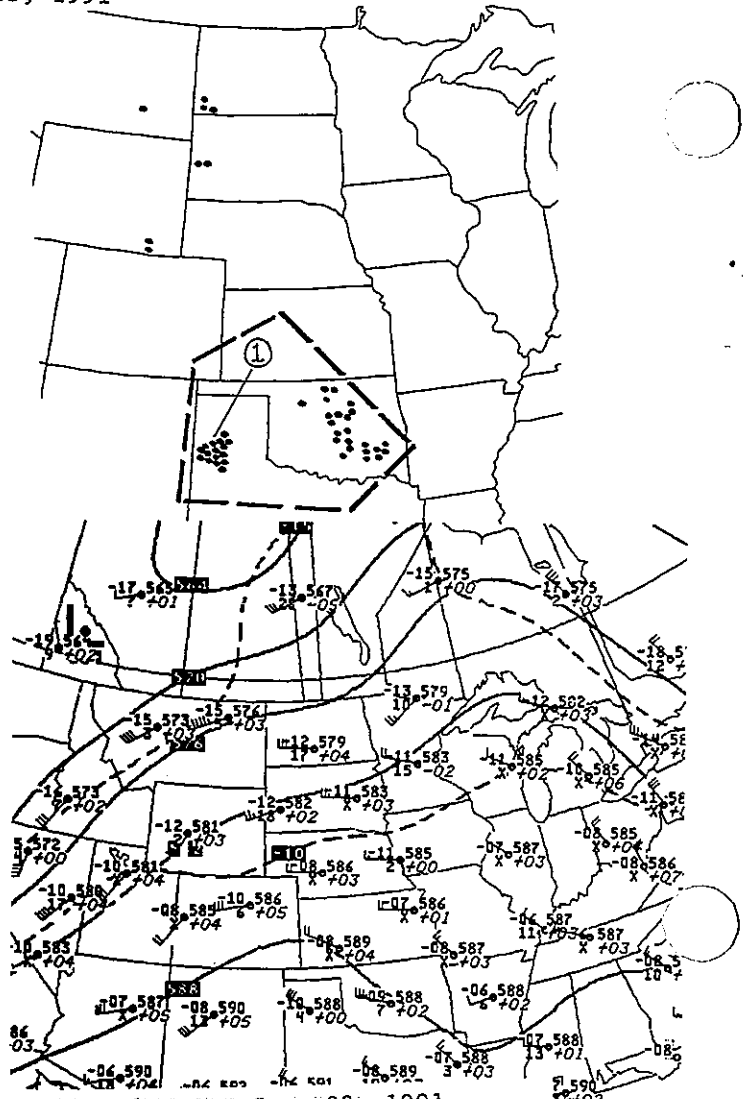
\*\*\* 1140-2020 CST \*\*\*

NO TIME EVENT ST LOCATION

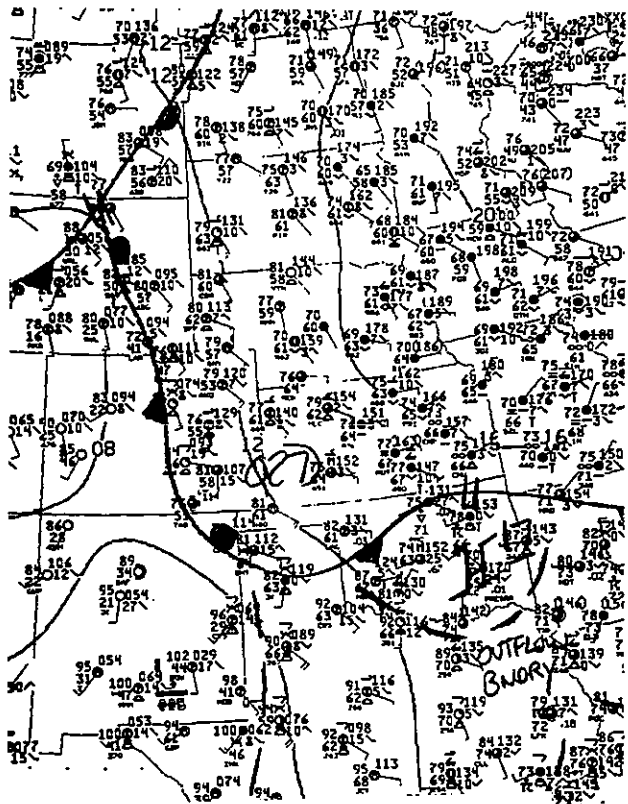
1 1810 80 MPH WIND GUST TX HAPPY (34 SSW AMA)



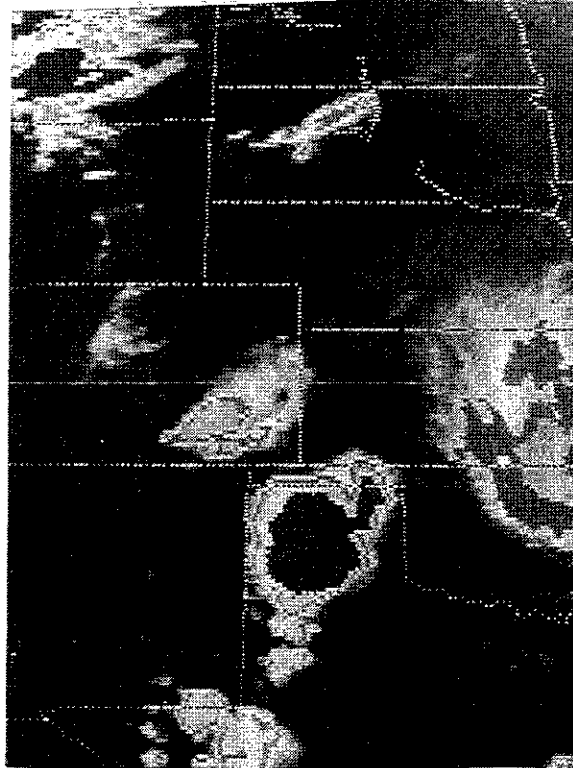
Composite 6PM CST June 23, 1991



500MB 6PM CST June 23, 1991



Surface 6PM CST June 23, 1991



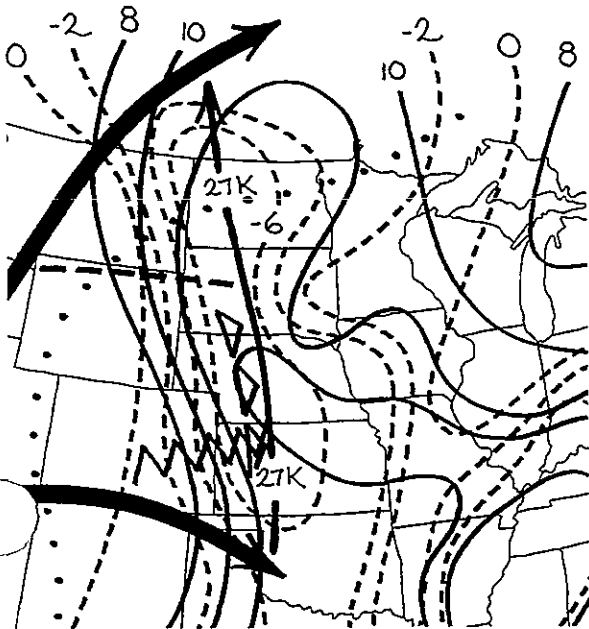
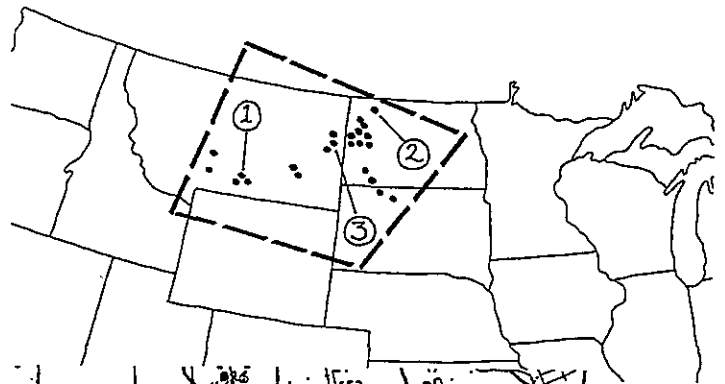
GOES 6PM CST June 23, 1991

\*\*\* 19 SEVERE REPORTS \*\*\*

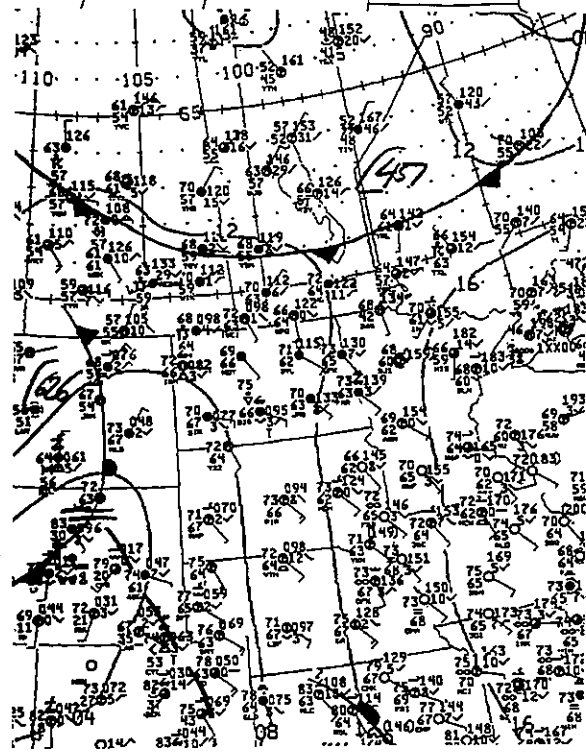
\*\*\* 1 TORNADO \*\*\*

\*\*\* 1840-0559 CST \*\*\*

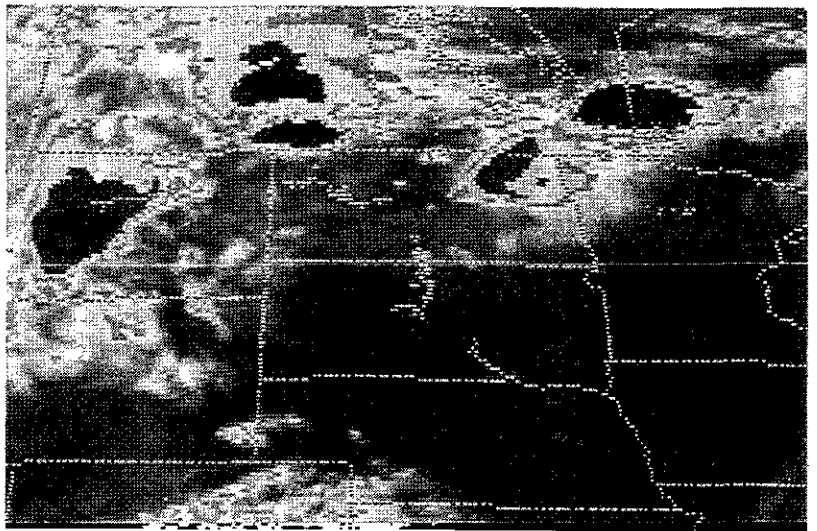
NO	TIME	EVENT	ST	LOCATION	
1	2120	3.50 INCH HAIL	MT	BILLINGS	( BIL)
2	2245	2.50 INCH HAIL	ND	14 S COLUMBUS	(25 SE YEN)
3	0250	77 MPH WIND GUST	MT	GLENDIVE	( GDV)



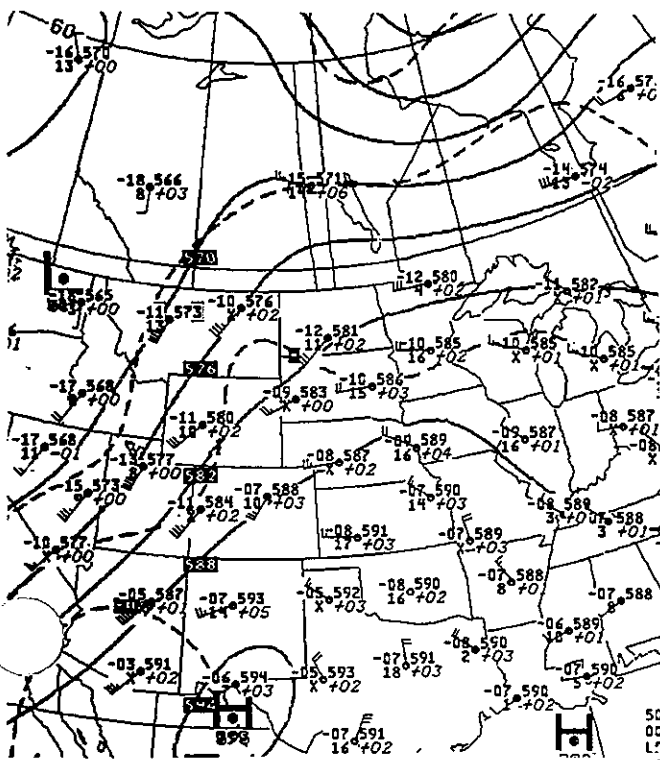
Composite 6PM CST June 24, 1991



Surface 9PM CST June 24, 1991



GOES 9PM CST June 24, 1991



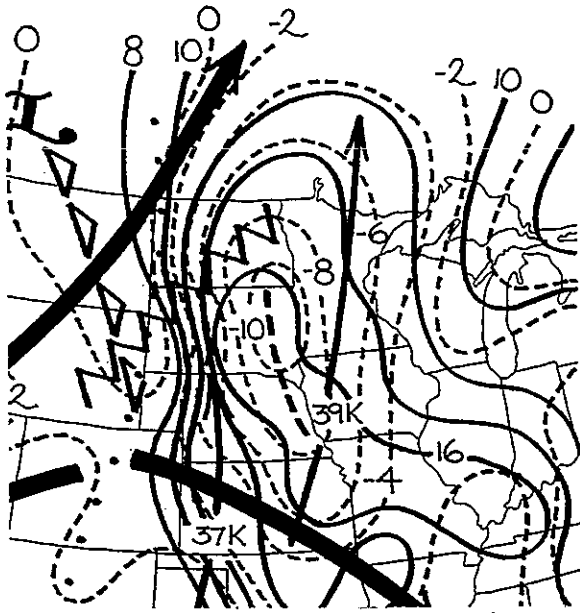
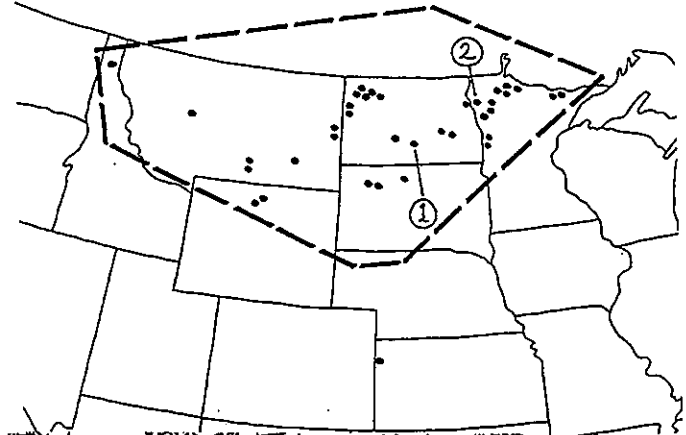
500MB 6PM CST June 24, 1991

\*\*\* 33 SEVERE REPORTS \*\*\*

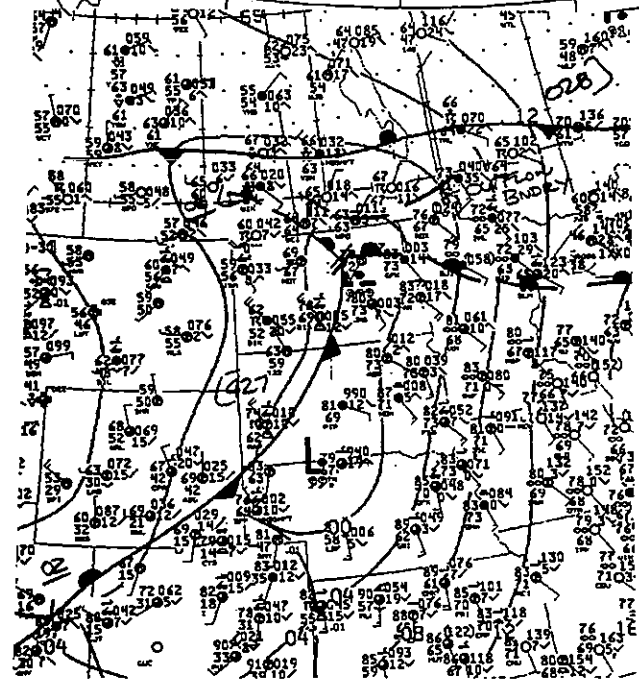
\*\*\* 5 TORNADOES \*\*\*

\*\*\* 1343-0435 CST \*\*\*

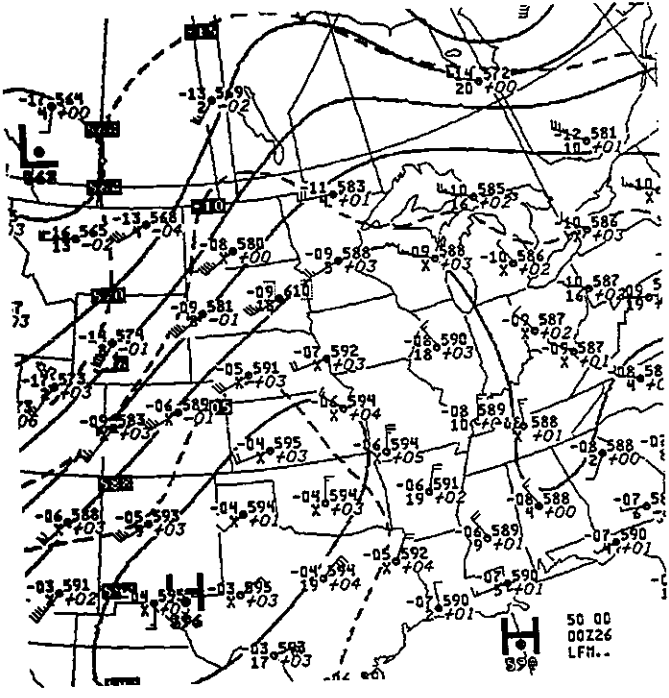
NO	TIME	EVENT	ST	LOCATION	
1	2145	2.75 INCH HAIL	ND	MANDAN	( 8 WNW BIS)
2	0030	94 MPH WIND GUST two million dollars damage	MN	WARREN	(25 ENE GFK)



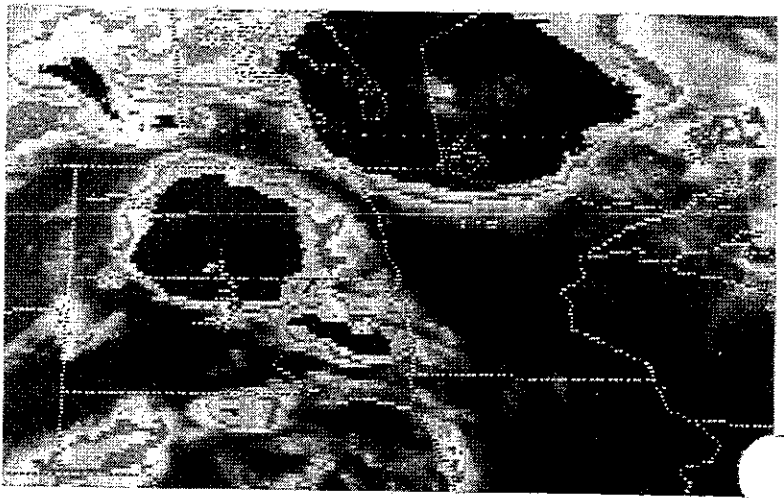
Composite 6PM CST June 25, 1991



Surface 9PM CST June 25, 1991



500MB 6PM CST June 25, 1991



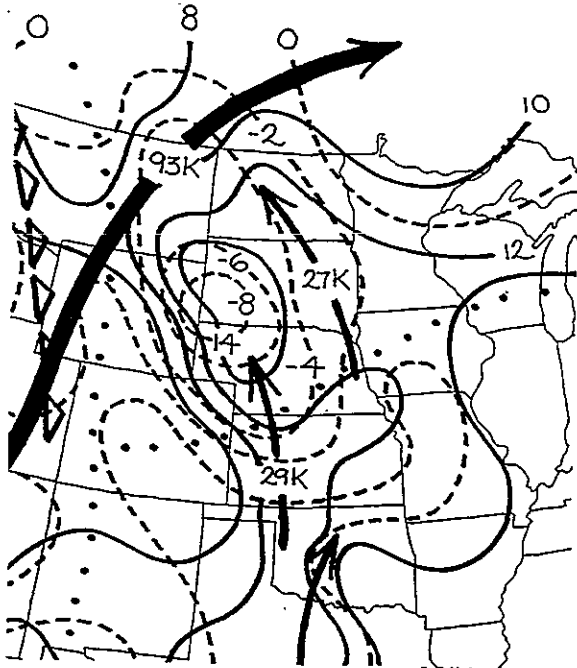
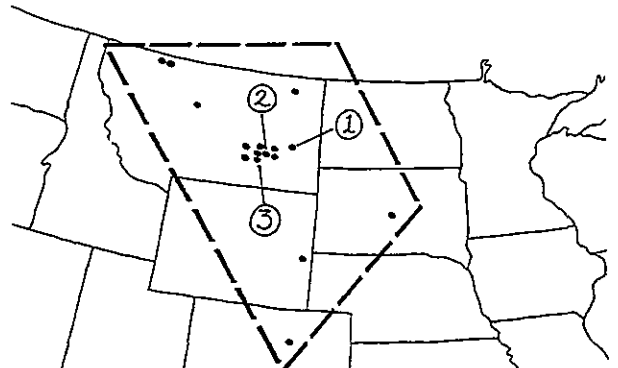
GOES 10PM CST June 25, 1991

\*\*\* 16 SEVERE REPORTS \*\*\*

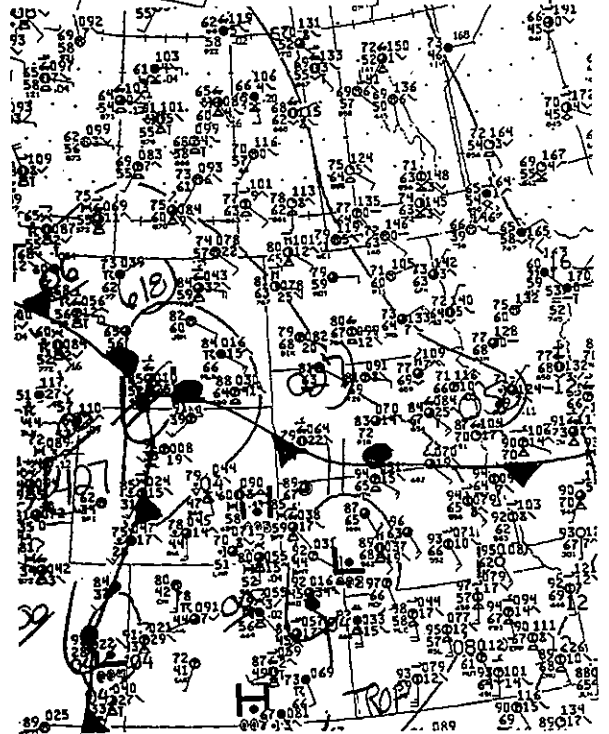
\*\*\* 4 TORNADES \*\*\*

\*\*\* 1615-0032 CST \*\*\*

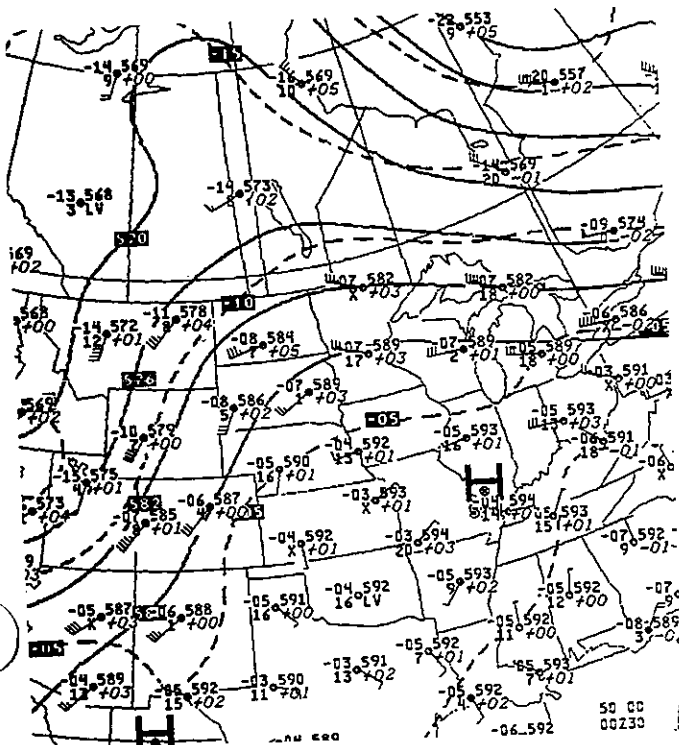
NO	TIME	EVENT	ST	LOCATION	
1	1833	2.50 INCH HAIL	MT	MILDRED	(31 SSW GDV)
2	1847	2.25 INCH HAIL more than half a million dollars damage	MT	MILES CITY	(MLS)
3	1850	5.00 INCH HAIL	MT	HATHAWAY	(18 SW MLS)



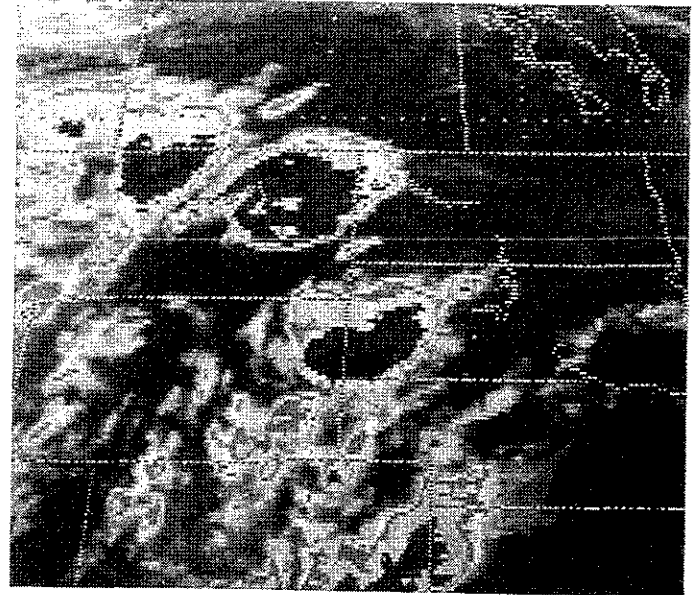
Composite 6PM CST June 29, 1991



Surface 6PM CST June 29 1991



500MB 6PM CST June 29, 1991

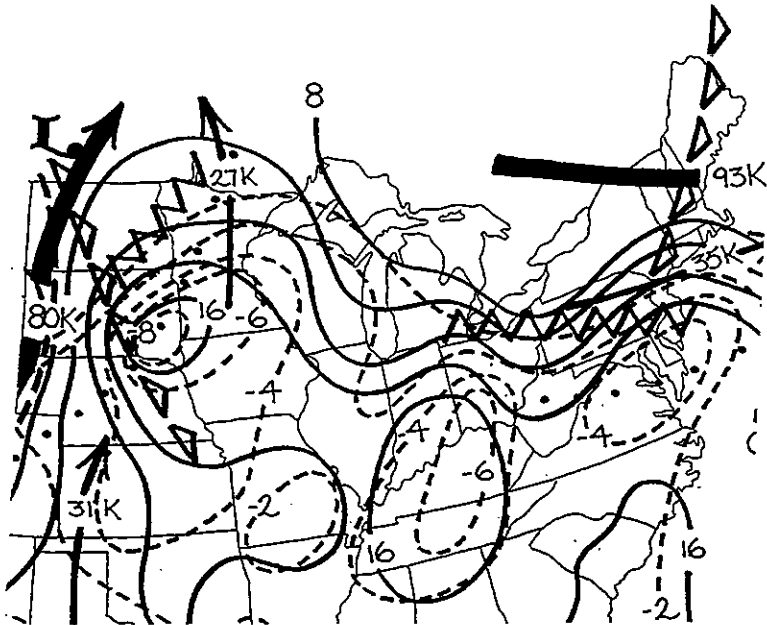
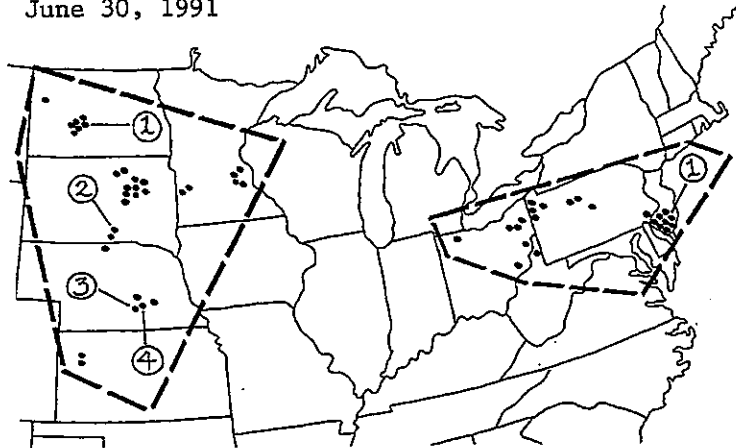


GOES 7PM CST June 29, 1991

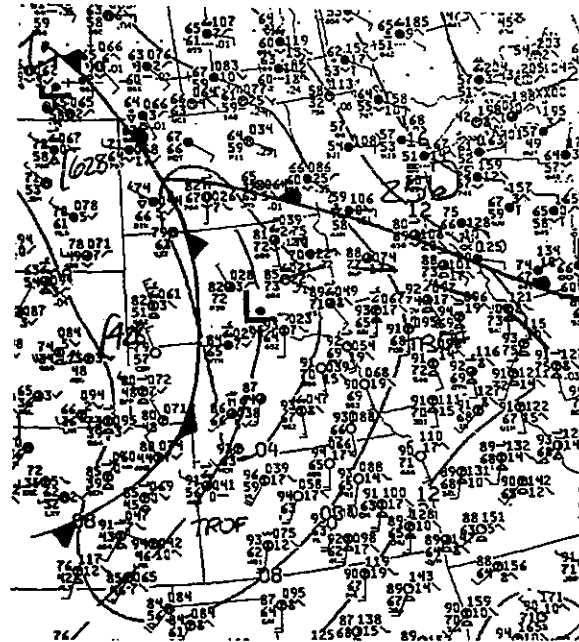
NO	TIME	EVENT	ST	LOCATION	(ACV)
1	1553	64 MPH WIND GUST	NJ	ATLANTIC CITY	( ACV)

\*\*\* 33 SEVERE REPORTS \*\*\*  
 \*\*\* 5 TORNADOES \*\*\*  
 \*\*\* 1442-2330 CST \*\*\*

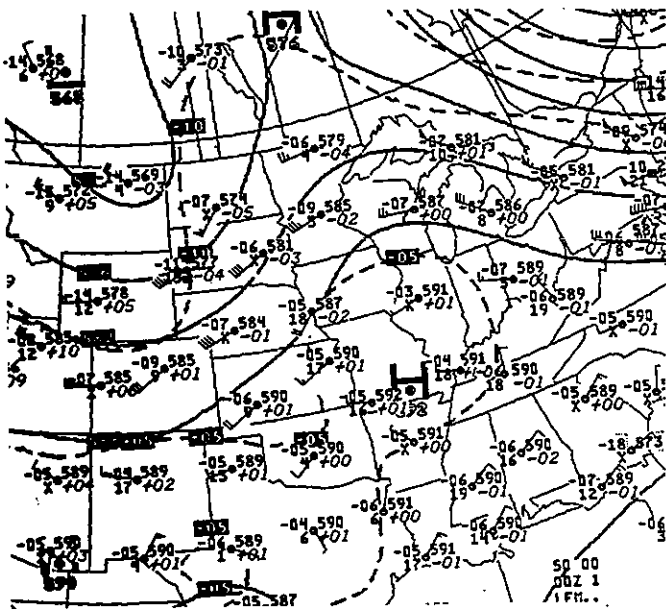
NO	TIME	EVENT	ST	LOCATION	(35 NW BIS)
1	1515	2.75 INCH HAIL	ND	7 NE CENTER	(35 NW BIS)
2	1515	2.75 INCH HAIL 92 MPH WIND	SD	10 S BURKE	(50 S 9V9)
3	1725	90 MPH WIND GUST	NE	PROSSER	( 8 WNN HSI)
4	1730	80 MPH WIND GUST	NE	4 S SHELTON	(14 E EAR)



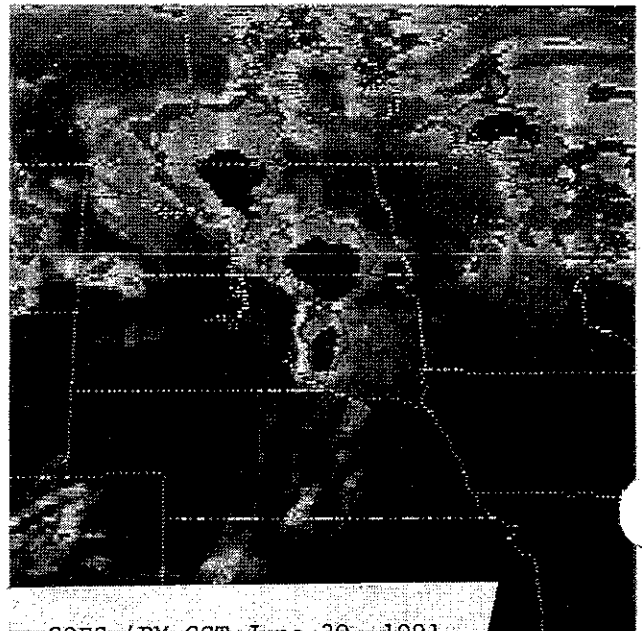
Composite 6PM CST June 30, 1991



Surface: 3PM CST June 30, 1991



500MB 6PM CST June 30, 1991



GOES 4PM CST June 30, 1991





v<sup>o</sup>

v



- No. 8 A Minimum Assumption Tornado Hazard Probability Model. Joseph T. Schaefer, Donald L. Kelly, and Robert F. Abbey, May 1985, 30 p., (PB85 20692/AS).
- No. 9 Verification of Severe Local Storm Forecasts Issued by the National Severe Storms Forecast Center: 1984. Preston W. Leftwich, Jr., November 1985, 23 p., (PB86 128105/AS).
- No. 10 Severe Local Storm Warning Verification: 1984. Preston W. Leftwich, Jr. and Leo A. Grenier, December 1985, 14 p., (PB86 148244).
- No. 11 Severe Thunderstorm Cases of 1985. John E. Hales, Jr. and Hugh G. Crowther, February 1986, 51 p., (PB86 164340/AS).
- No. 12 Severe Local Storm Warning Verification Preliminary Procedures. Leo A. Grenier and John T. Halmstad, April 1986, 16 p., (PB86 194362).
- No. 13 Verification of Severe Local Storm Forecasts Issued by the National Severe Storms Forecast Center: 1985. Preston W. Leftwich, Jr., November 1986, 9 p., (PB87 137139/AS).
- No. 14 Severe Local Storm Warning Verification: 1985. Preston W. Leftwich, Jr. and Leo A. Grenier, December 1986, 16 p., (PB87 137147/AS).
- No. 15 An Examination of the National Weather Service Severe Local Storm Warning Program and Proposed Improvements. John E. Hales, Jr., January 1987, 32 p., (PB87 147948/AS).
- No. 16 Severe Thunderstorm Cases of July 1985 through June 1986. John E. Hales, Jr. and Hugh G. Crowther, February 1987, 72 p., (PB87 163911/AS).
- No. 17 Severe Local Storm Warning Verification: 1986. Leo A. Grenier, John T. Halmstad and Preston W. Leftwich, Jr., June 1987, 19 p., (PB87 195939).
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- No. 20 Severe Local Storm Warning Verification: 1987. Leo A. Grenier, John T. Halmstad and Preston W. Leftwich, Jr., June 1988, 19 p., (PB88 241393).
- No. 21 Verification of Severe Local Storm Forecasts Issued by the National Severe Storms Forecast Center: 1987. Preston W. Leftwich, Jr., December 1988, 11 p., (PB89 159719/AS).
- No. 22 Severe Thunderstorm Cases of July 1987 thru June 1988. John E. Hales, Jr. and Hugh G. Crowther, April 1989, 92 p., (PB89 206411/AS)
- No. 23 Severe Local Storm Warning Verification: 1988. Leo A. Grenier, John T. Halmstad and Preston W. Leftwich, Jr., June 1989, 26 p., (PB89 226310/AS).
- No. 24 Verification of Severe Local Storm Forecasts Issued by the National Severe Storms Forecast Center: 1988. Preston W. Leftwich, Jr., September 1989, 18 p., (PB90-140211/AS).
- No. 25 A Dyad of Papers Concerning Joint Verification of Severe Local Storm Watches and Warnings During Tornado Events: Preston W. Leftwich, Jr. and John E. Hales, Jr., January 1990, 36 p., (PB90-219387/AS).
- No. 26 Severe Thunderstorm Cases of July 1988 thru June 1989: John E. Hales, Jr. and Hugh G. Crowther, April 1990, 106 p., (PB90-226424/AS)
- No. 27 Severe Local Storm Warning Verification: 1989. Leo A. Grenier, John T. Halmstad and Preston W. Leftwich, Jr., May 1990, 25 p., (PB90-248592)
- No. 28 Verification of Severe Storms Forecasts Issued by the National Severe Storms Forecast Center: 1989. Preston W. Leftwich, Jr. and Richard W. Anthony, September 1990, 17 p., (PB91-132472/AS)
- No. 29 Severe Thunderstorm Cases of July 1989 thru June 1990: John E. Hales, Jr. and Hugh G. Crowther, April 1991, 131 p., (PB91-201392)
- No. 30 Severe Local Storm Warning Verification: 1990. Leo A. Grenier, John T. Halmstad, May 1991, 32 p., (PB91-227520)
- No. 31 Verification of Severe Local Storm Forecasts Issued By the National Severe Storms Forecast Center: 1990. Preston W. Leftwich, Jr. and Richard W. Anthony, October 1991, 12 p., (PB92-124452/AS)

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