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NASA TECHNICAL MEMORANDUM



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A PRELIMINARY LOOK AT AVE-SESAME V CONDUCTED
ON 20-21 MAY 1979

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May 1981

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NASA Technical Memorandum

A PRELIMINARY LOOK AT AVE-SESAME V CONDUCTED
ON 20-21 MAY 1979

1

1. OBJECTIVES AND SCOPE

The objectives of AVE-SESAME (Atmospheric Variability Experiment-Severe Environmental Storms and Mesoscale Experiment) are to provide a data base for studying mesosynoptic atmospheric structure and variability associated with convection and severe weather. Rawinsonde sounding data at 3-hr intervals are gathered to investigate spatial and temporal changes of mesosynoptic conditions associated with the formation, development, and maintenance of convective activity and the interaction between convective activity and its immediate environment.

This quick-look report contains information and analysis of the general weather conditions during the AVE-SESAME V period. Synoptic charts, radar maps, satellite photographs, rainfall amounts, and a summary of severe weather reports assembled from the NOAA weather wire and the national weather summaries are compiled for 1200 GMT 20 May through 1200 GMT 21 May 1979. The purpose of this report is to provide to researchers a preliminary look at conditions during the AVE-SESAME V period. Additional information for AVE-SESAME V has been presented by Alberty et al., (1979).

2. DATA COLLECTED

a. Rawinsonde Soundings

Rawinsonde soundings were collected at 23 National Weather Service stations and at 20 special stations in Texas and Oklahoma. A list of these stations is given in Table 1, and their locations are shown in Figures 1 and 2.

Table 1. Rawinsonde stations participating in the AVE-SESAME V experiment.

Station Number	Location
<u>NWS Stations</u>	
229 (CKL)	Centerville, AL
232 (BVE)	Boothville, LA
235 (JAN)	Jackson, MS
240 (LCH)	Lake Charles, LA
247 (GGG)	Longview, TX
255 (VCT)	Victoria, TX
260 (SEP)	Stephenville, TX
261 (DRT)	Del Rio, TX
265 (MAF)	Midland, TX
270 (ELP)	El Paso, TX
327 (BNA)	Nashville, TN
340 (LIT)	Little Rock, AR
349 (UMN)	Monet, MO
354 (OKC)	Oklahoma City, OK
363 (AMA)	Amarillo, TX
365 (ABQ)	Albuquerque, NM
433 (SLO)	Salem, IL
451 (DDC)	Dodge City, KS
456 (TOP)	Topeka, KS
469 (DEN)	Denver, CO
532 (FIA)	Peoria, IL
553 (OMA)	Omaha, NE
562 (LBF)	North Platte, NE
<u>Special Stations</u>	
20 (ADA)	Ada, OK
21 (LTS)	Altus, OK
22 (CAN)	Canadian, TX
23 (CHE)	Cheyenne, OK
24 (CHK)	Chickasha, OK
25 (CDS)	Childress, TX
26 (CSM)	Clinton Sherman, OK
27 (EMC)	Elmore City, OK
28 (FSI)	Ft. Sill, OK
29 (GAG)	Gage, OK
30 (HEA)	Healdton, OK
31 (HEN)	Hennessey, OK
32 (HNT)	Hinton, OK
33 (TVY)	KTVY, OKC
34 (MTV)	Mountain View, OK
35 (OUN)	Norman, OK
36 (SEL)	Seiling, OK
37 (SHM)	Shamrock, TX
38 (SUD)	Stroud, OK
39 (SPS)	Wichita Falls, TX

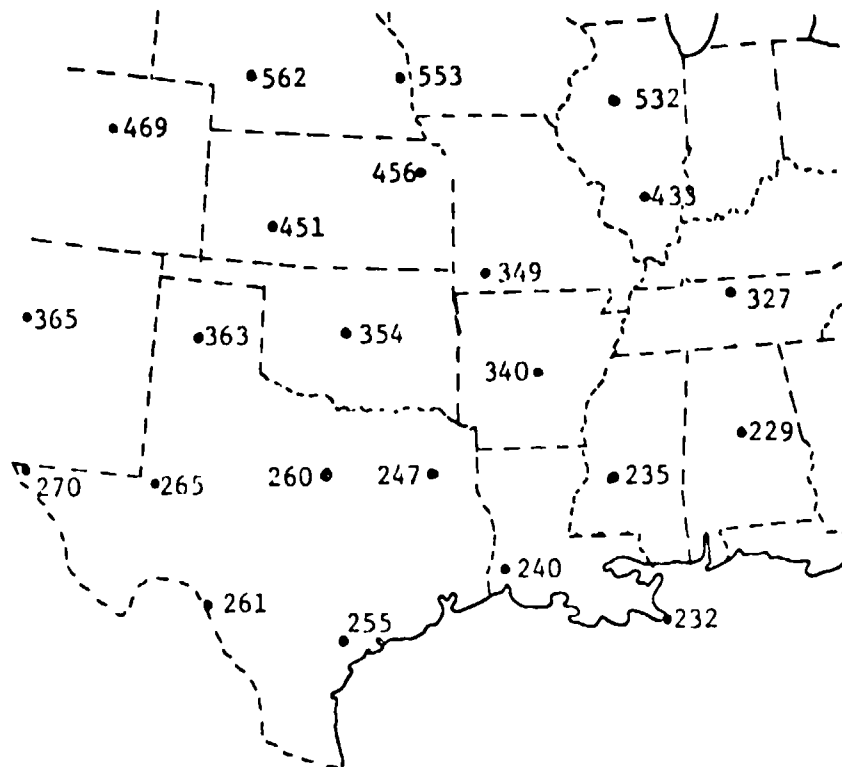


Fig. 1. Locations of the 23 NWS rawinsonde stations participating in the AVE-SESAME V experiment.

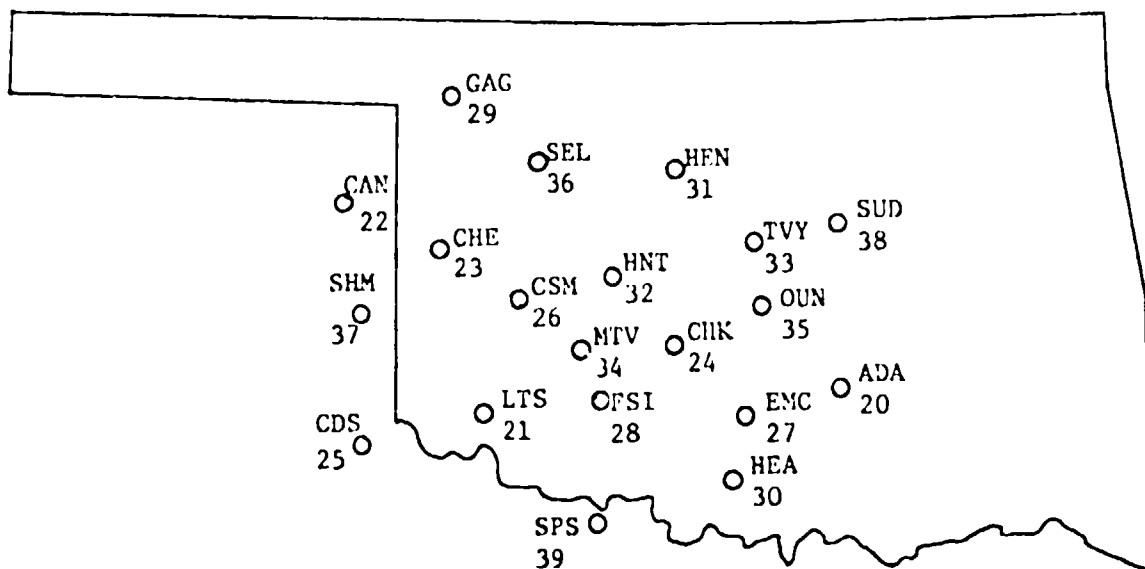


Fig. 2. Locations of the 20 special rawinsonde stations participating in the AVE-SESAME V experiment.

The dates and times of scheduled soundings are as follows:

<u>Date</u>	<u>Time (GMT)</u>
20 May 1979	12, 15, 18, 21
21 May 1979	00, 03, 06, 09, 12

Sounding data interpolated to 25-mb intervals will be presented in a separate document. These data may be obtained in hard copy form or on magnetic tape from the Atmospheric Sciences Division (Code: ES84), Space Sciences Laboratory, NASA, Marshall Space Flight Center, Alabama 35812.

b. Surface and Upper Air

Surface and upper air charts and data are available from the National Climatic Center in Asheville, North Carolina.

3. SYNOPTIC CONDITIONS

a. Synoptic Charts

Surface and upper air charts for the AVE-SESAME V period are presented in Figures 3-7. Surface charts are presented at 6-hr intervals and upper air charts at 12-hr intervals. These charts were plotted and analyzed using National Weather Service data only, and show the general conditions during the experiment. They should not be used for other purposes.

At 1200 GMT 20 May 1979, a relatively strong stationary front extended from Lake Huron through the lower Ohio Valley into central New Mexico and then northward to a low pressure center in eastern Utah. A broad area of showers and thunderstorms covered Missouri, northern Arkansas, and the eastern sections of Kansas and Oklahoma in the vicinity of the stationary front. The most intense storms were over the extreme southwestern corner of Missouri.

At 850 mb, the advection of moisture at 1200 GMT 20 May spread into southern Missouri from southwestern Texas. The axis of the 850 mb thermal ridge extended from southwestern Texas to central Missouri. A short wave

at the 700-mb level over extreme eastern Kansas was associated with the early morning convective activity in central and southern Missouri. One- to two-inch rains fell over most of southern Missouri and northern Arkansas. A major upper-level trough at 1200 GMT 20 May was centered just south of Arizona. Wind directions indicated diffluence at the 300- and 200-mb levels over southwestern Missouri.

At 1845 GMT 20 May a tornado watch was issued for parts of southwestern and central Oklahoma and northwestern and north-central Texas. Precipitation echoes reached 58K ft 45 miles northwest of Wichita Falls, Texas. Within one hour, a tornado touched down in the western section of the watch box.

Convective activity developed around 1830 GMT 20 May over West Texas and the Big Bend area of Texas. Thirty minutes later a tornado watch was issued for western Texas and southeastern Texas.

A twenty-five degree temperature difference between the Texas Panhandle area and north-central Texas was associated with the stationary front. At 0000 GMT 21 May 1979 temperatures were in the 60's in the Texas Panhandle and near 90° readings were reported in northern Texas.

By 0000 GMT 21 May, the upper level low pressure center moved east-northeastward into extreme southwestern New Mexico. The trough's axis tilted slightly more towards a southwest-to-northeast orientation at upper levels. The advection of moisture at 850 mb from the southwest reached into southern Illinois. By evening the stationary front became a cold front and its forward speed increased as it moved southeastward.

By 1200 GMT 21 May, the cold front stalled over central Texas and again became a stationary front. A short wave evident at 700 mb over north-central Texas was associated with the convective activity in that area. The upper-level trough retained the southwest to northeast orientation of its axis

as it moved slowly to the east-northeast. The center of the 200-mb low remained relatively stationary over southwestern New Mexico. Wind directions at 300 mb indicated diffluence over northern Texas. Although thunderstorm intensities decreased near the end of the AVE-SESAME V period, there was continued convective activity over Texas, Oklahoma, Arkansas, southern Kansas, and western Louisiana.

b. Radar

Selected radar summary charts are presented in Figs. 8-23 for the AVE-SESAME V period. These charts show areas of convective activity, heights of echoes, movement vectors, severe weather watch boxes, etc.

c. Satellite

Satellite photographs were taken at 15-min intervals during the AVE-SESAME V period. Selected visual and infrared satellite photographs for each hour during the period are presented in Figs. 24-47. The boundaries for some of the visual photographs are grossly in error and will be identified under such photographs.

d. Rainfall

Isohyets of accumulated rainfall during the AVE-SESAME V operational period are presented in Fig. 48. Special or cooperative climatological station data were not used in the analysis.

4. SEVERE AND UNUSUAL WEATHER REPORTED

Reports of tornadoes, severe thunderstorms, hail, high winds, and severe weather watches and warnings were compiled for AVE-SESAME V from the NOAA weather wire and national weather summaries and are presented in Table 2. Locations of observed tornadoes, observed funnel clouds, radar-indicated tornadoes, hail, and thunderstorms are shown in Fig. 49.

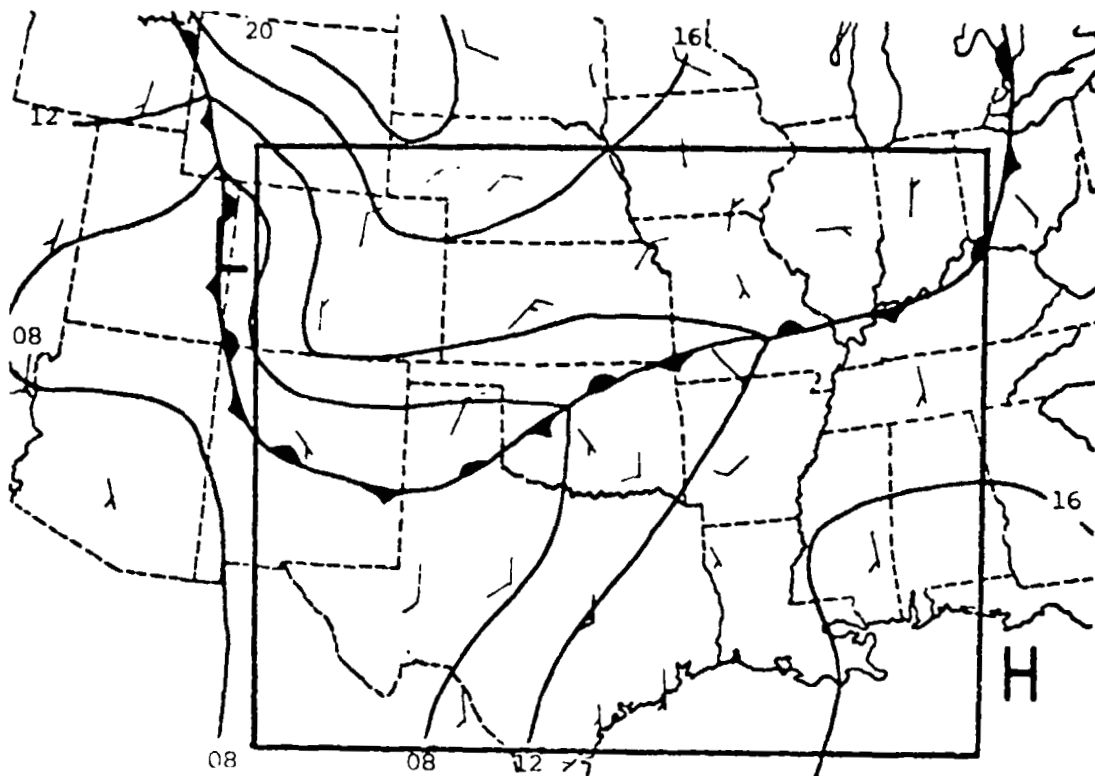
The severe weather outbreak during AVE-SESAME V covered a large area

from the Big Bend area of Texas through West Texas and along the Texas-Oklahoma border in the vicinity of Wichita Falls, Texas. Several severe thunderstorms also occurred in central Arkansas. Much of the convective activity and the heavy rains greater than two inches were associated with the stationary front.

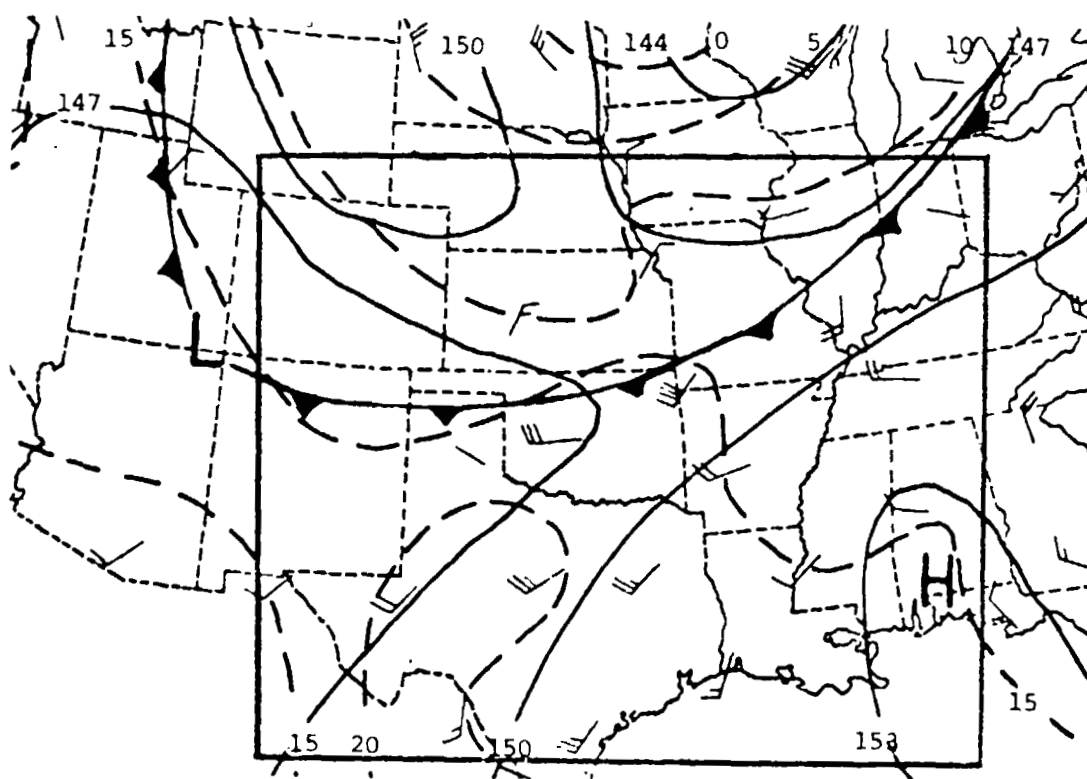
A total of seven tornadoes, one funnel cloud, numerous reports of 1/4-3/4 inch hail, and more than three dozen severe thunderstorms were reported during the AVE-SESAME V period. A majority of the severe weather occurred between 1840 GMT 20 May and 0330 GMT 21 May 1979.

Within a 40 mile radius of Wichita Falls, two tornadoes, a hook echo on radar, marble size hail, and more than a half dozen severe thunderstorms were reported during AVE-SESAME V. West Texas also experienced severe weather with 1/4-1/2 inch hail in the vicinity of Midland and three tornadoes near the Big Spring area. Most of this activity occurred between 2340 GMT 20 May and 0100 GMT 21 May 1979.

McAlester, in east-central Oklahoma, received over four inches of rain and nearly three and one-half inches fell in north-central Texas at Big Spring during the AVE-SESAME V period.

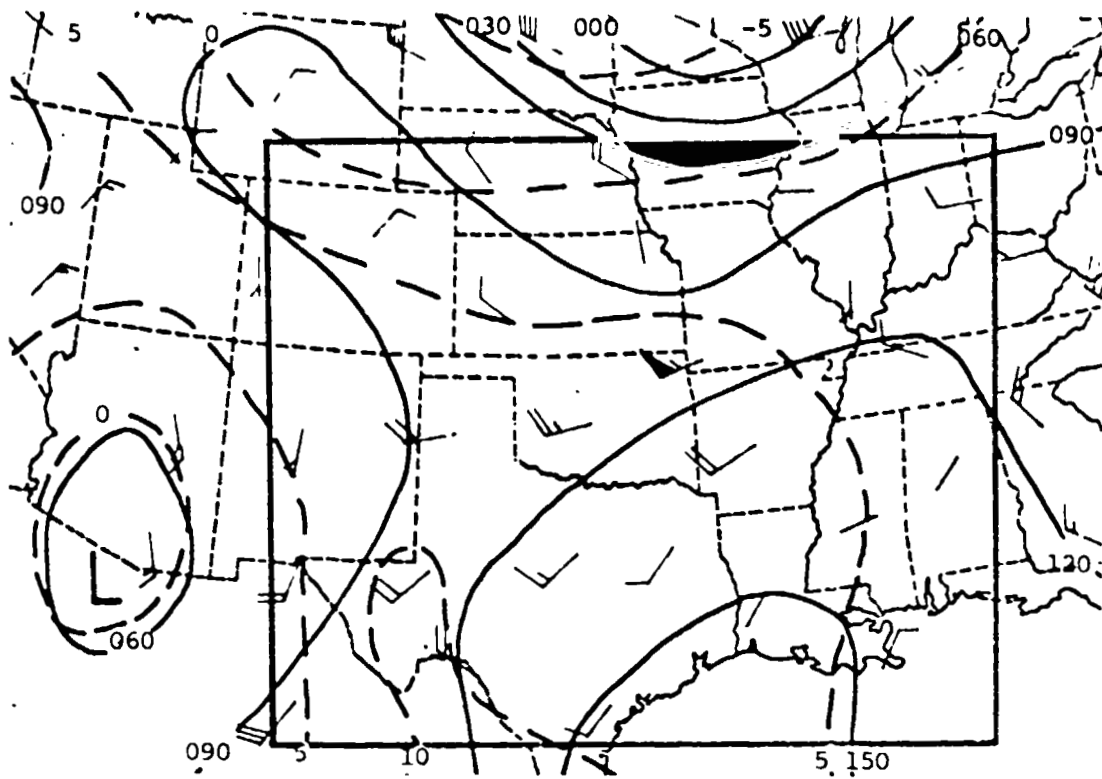


(a) Surface

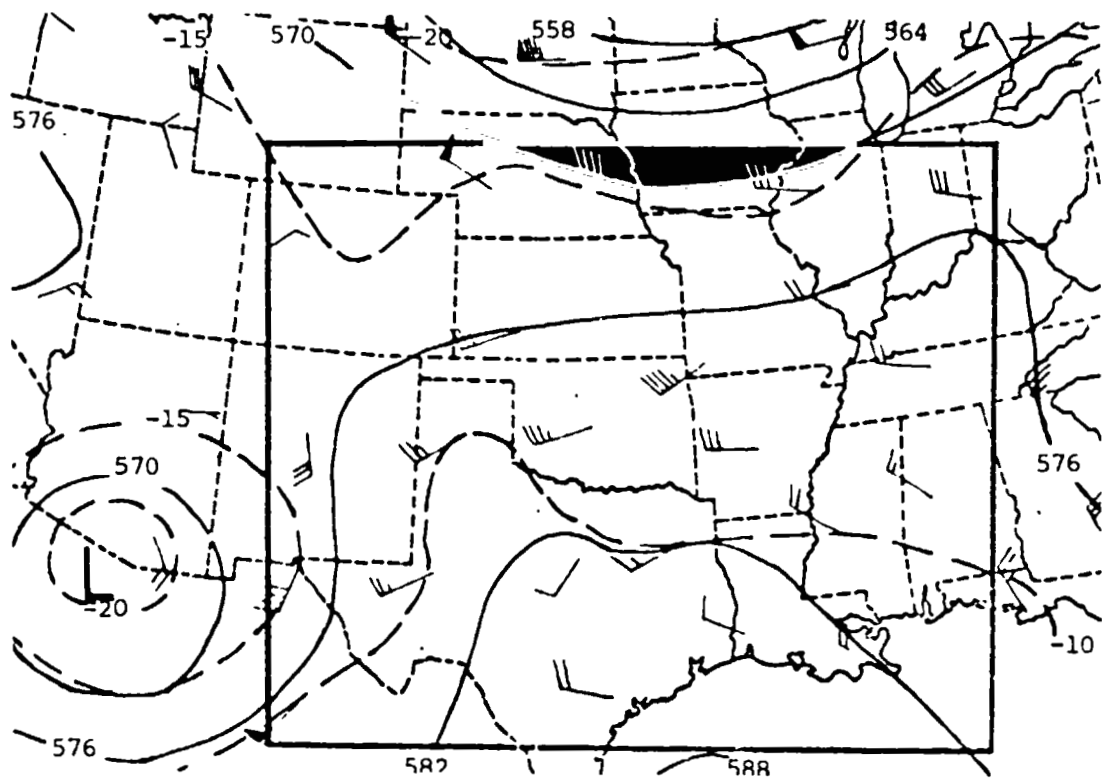


(b) 850 mb

Fig. 3. Synoptic charts for 1200 GMT 20 May 1979.

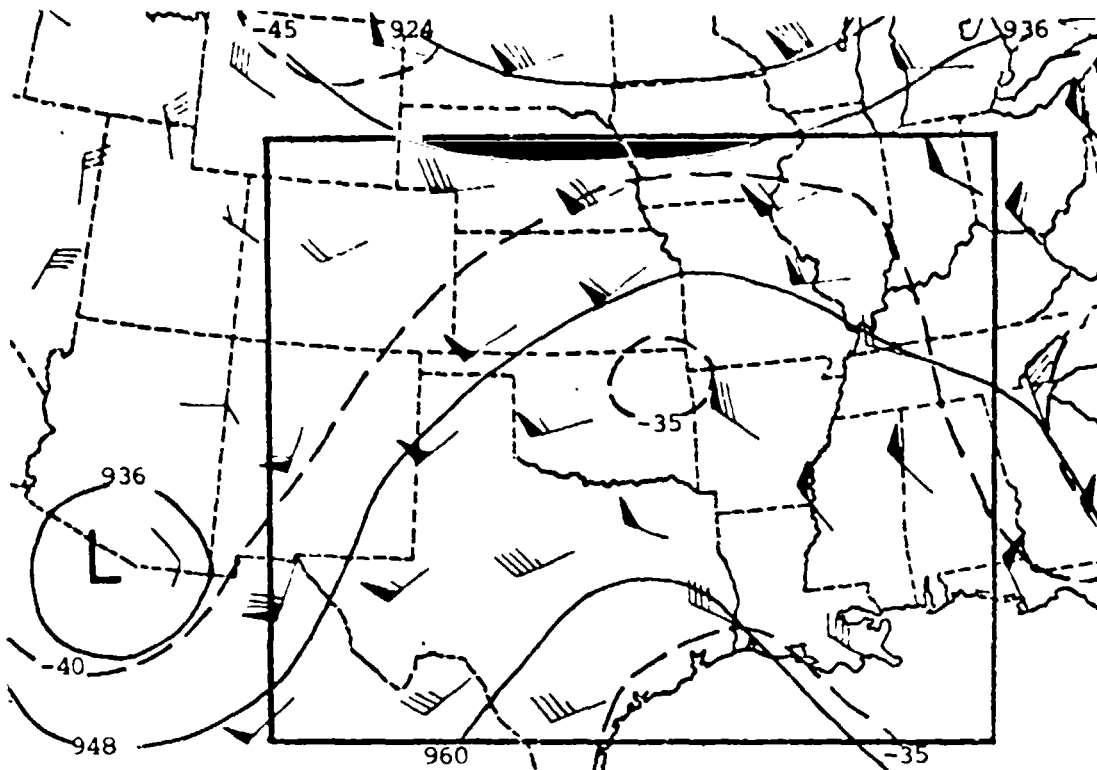


(c) 700 mb

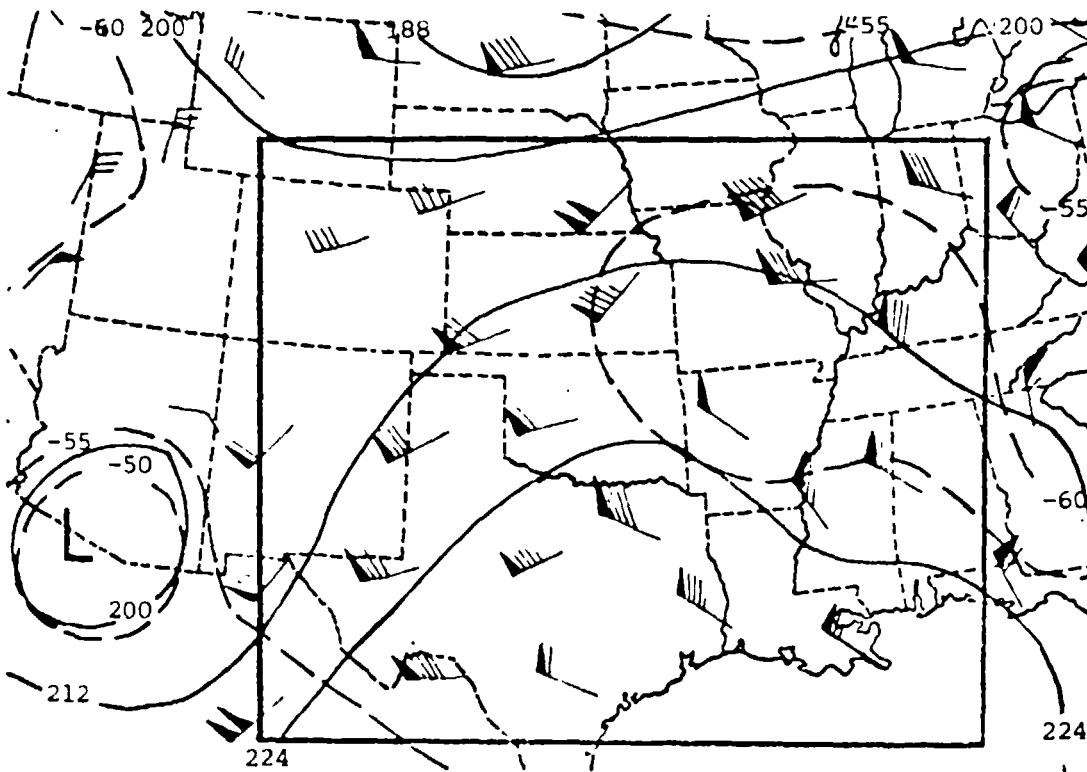


(d) 500 mb

Fig. 3. Continued.



(e) 300 mb



(f) 200 mb

Fig. 3. Concluded.

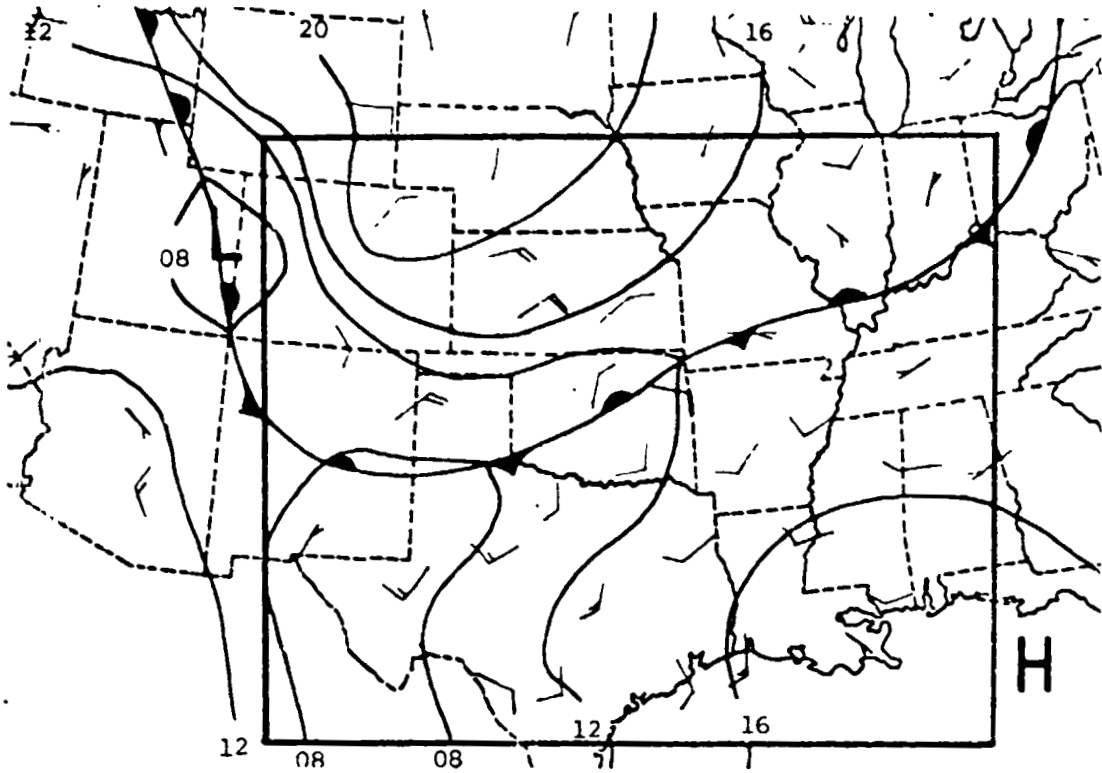
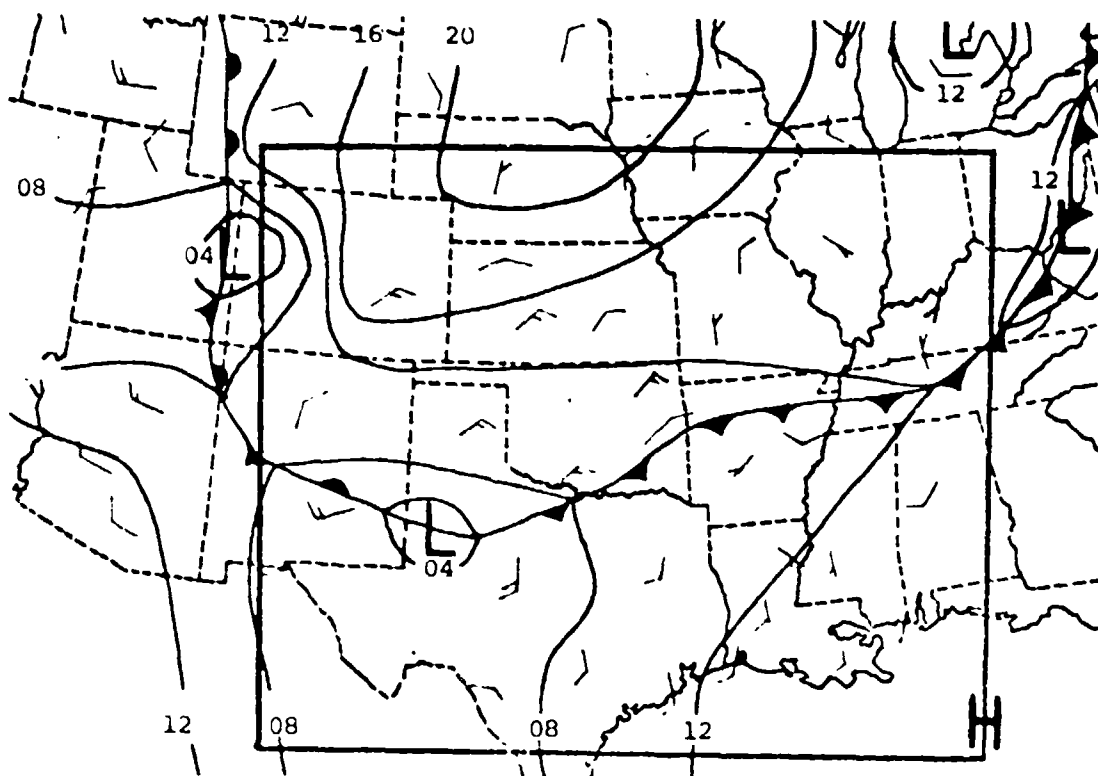
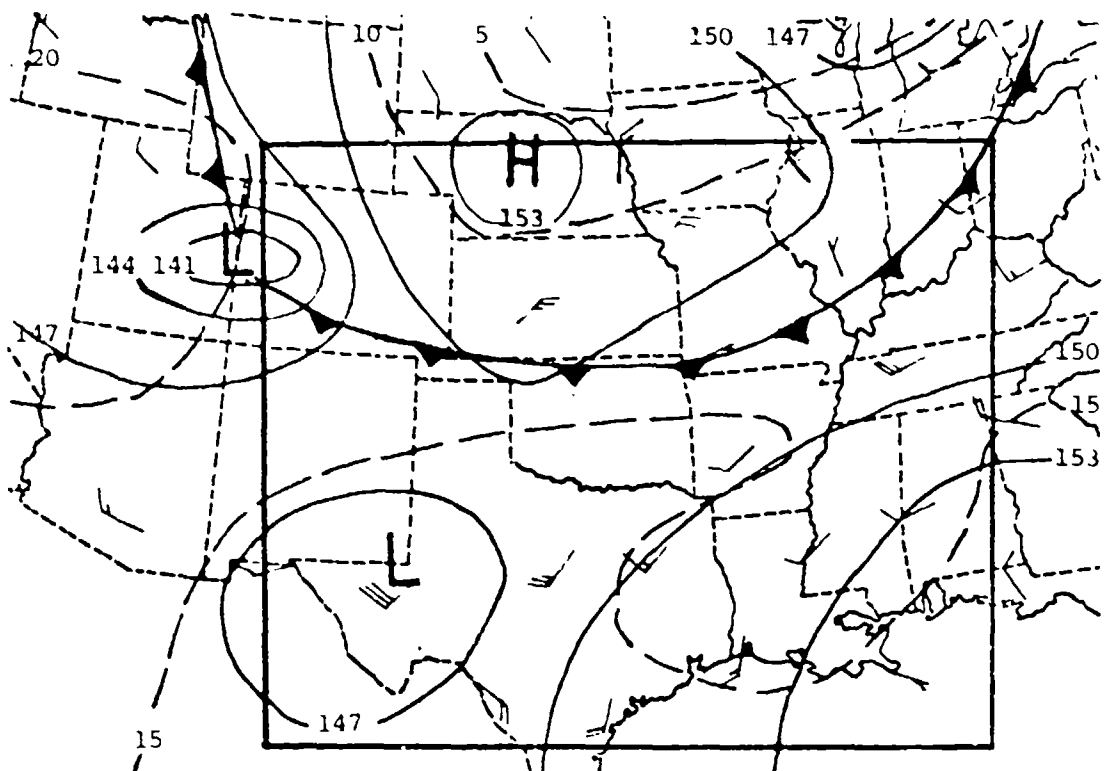


Fig. 4. Surface chart for 1800 GMT 20 May 1979.

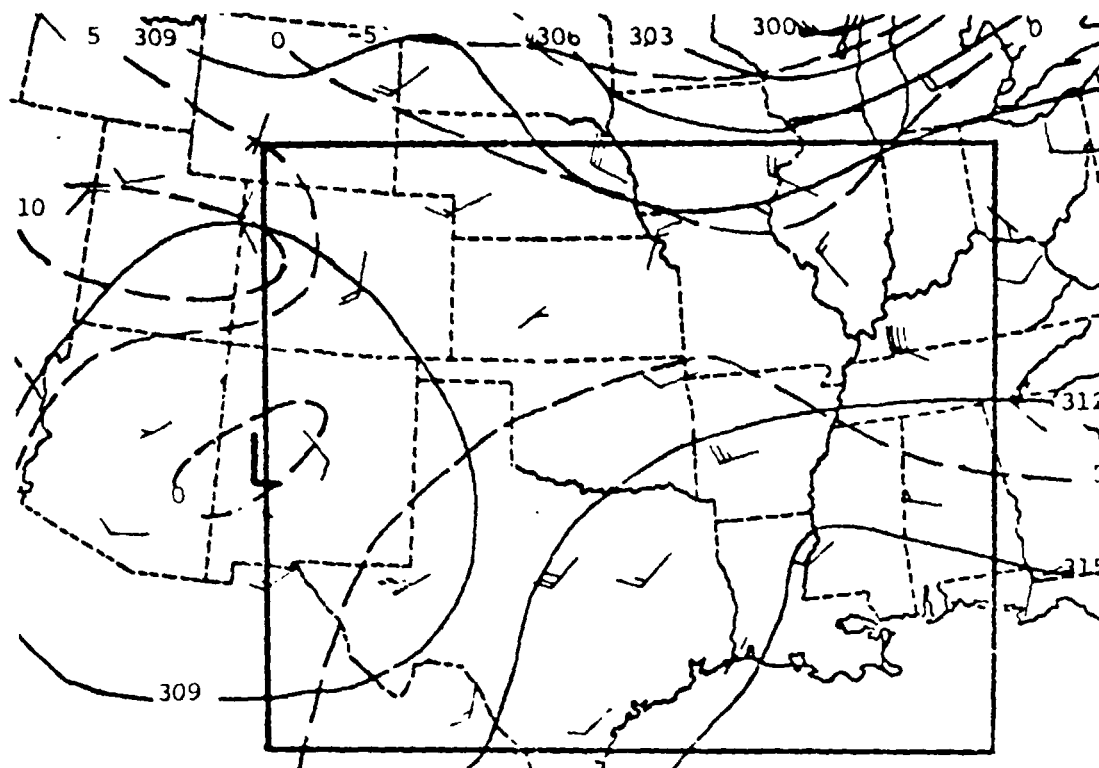


(a) Surface

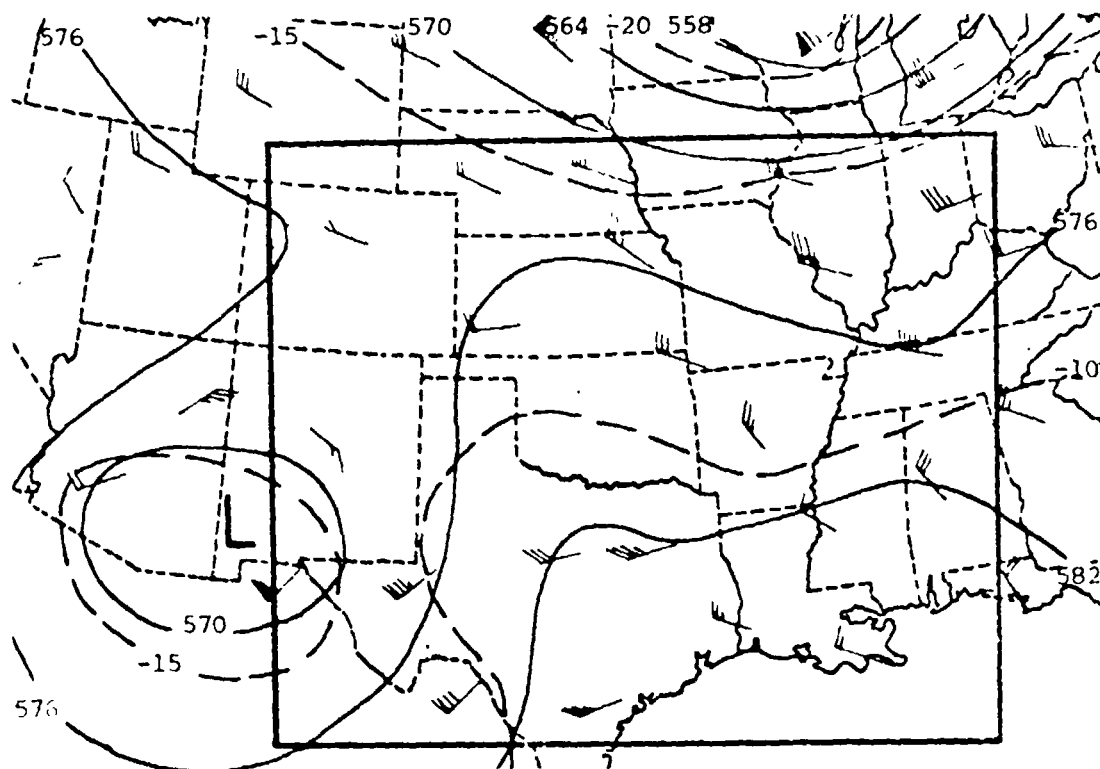


(b) 850 mb

Fig. 5. Synoptic charts for 0000 GMT 21 May 1979.

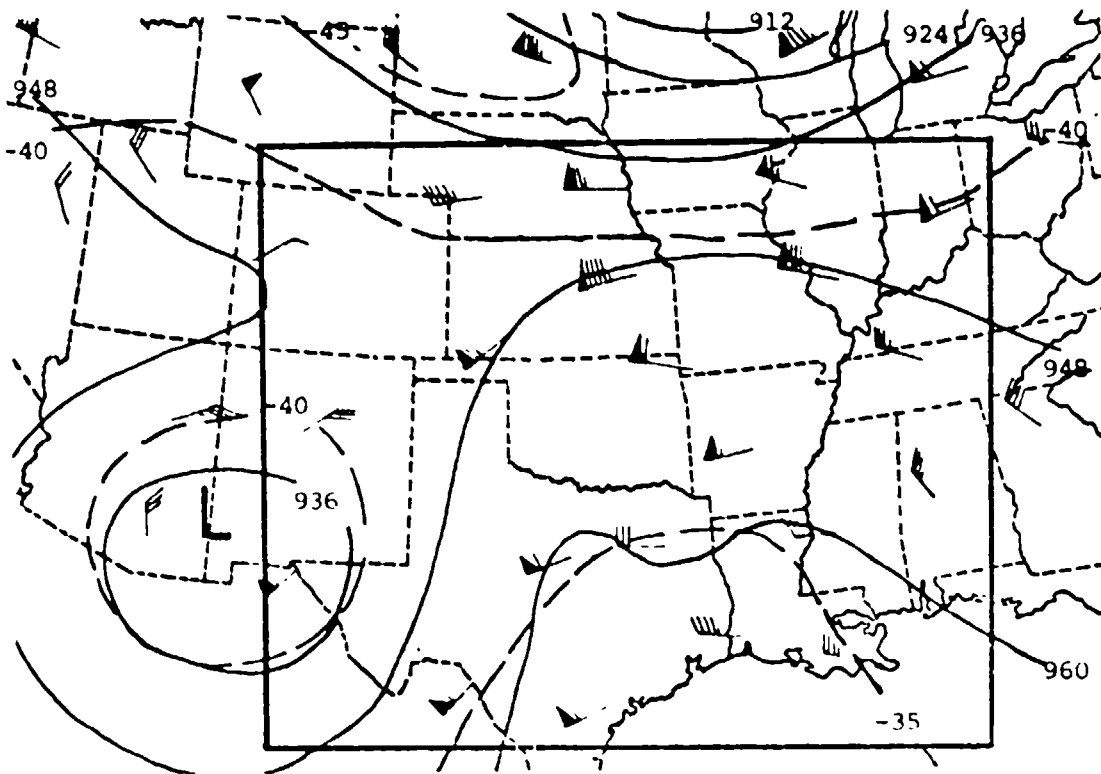


(c) 700 mb

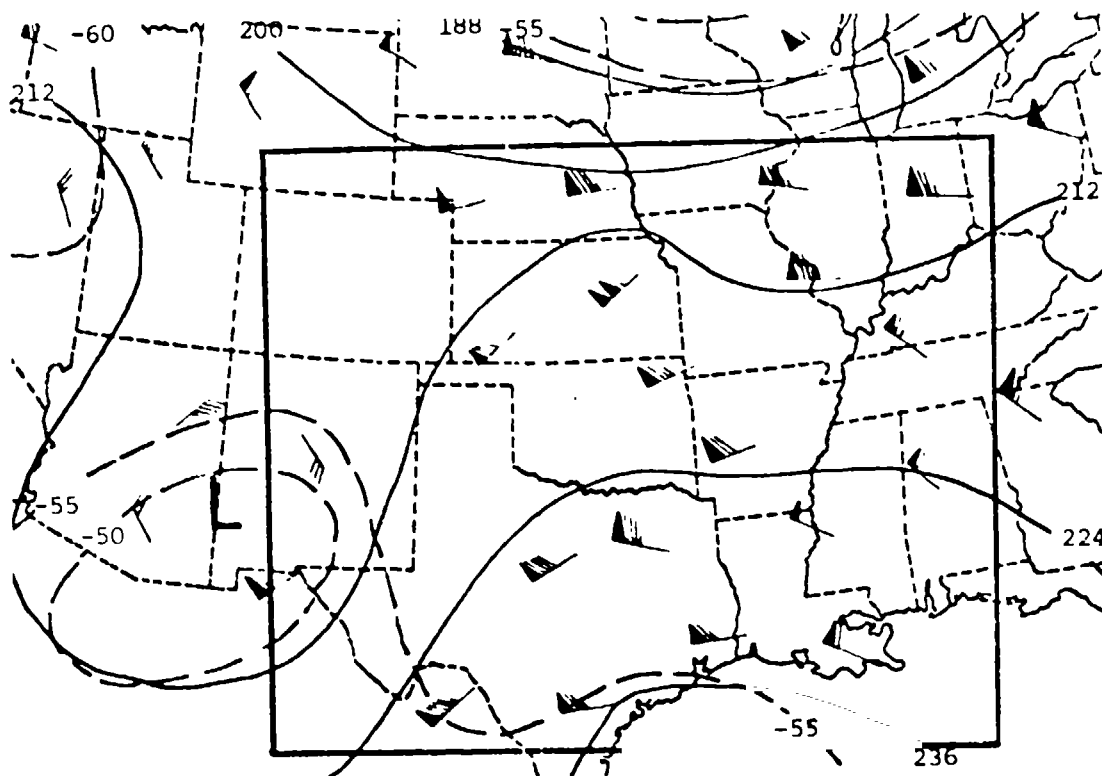


(d) 500 mb

Fig. 5. Continued.



(e) 300 mb



(f) 200 mb

Fig. 5. Concluded.

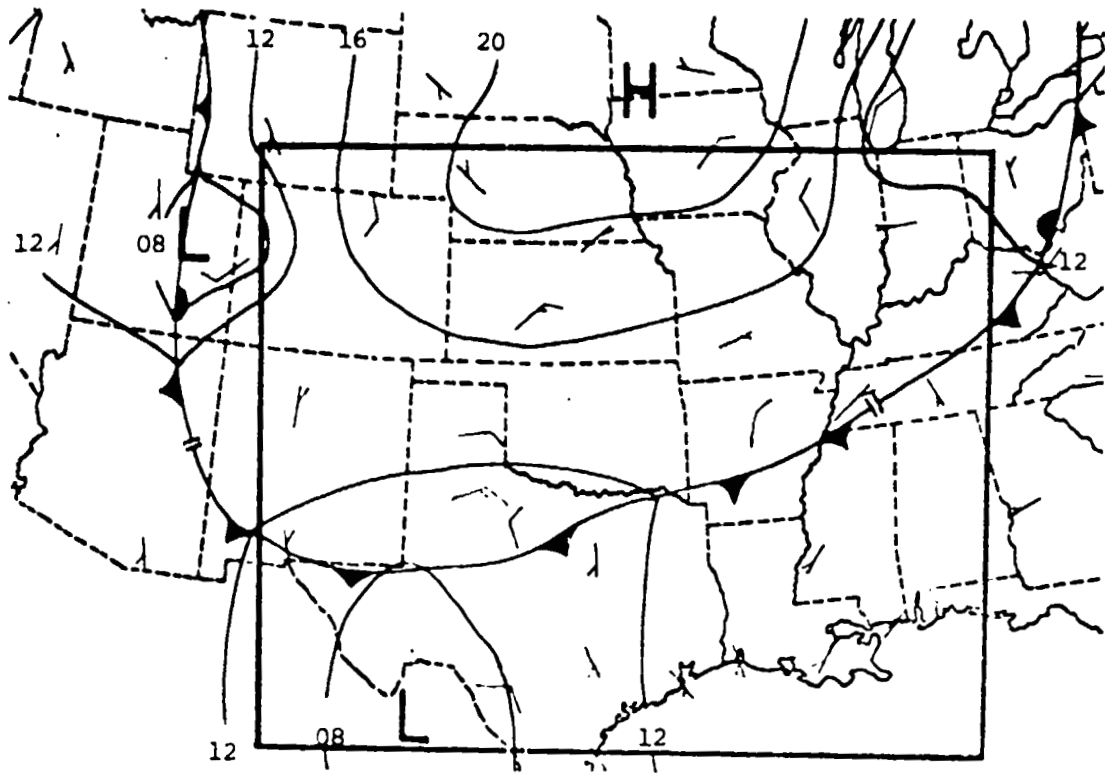
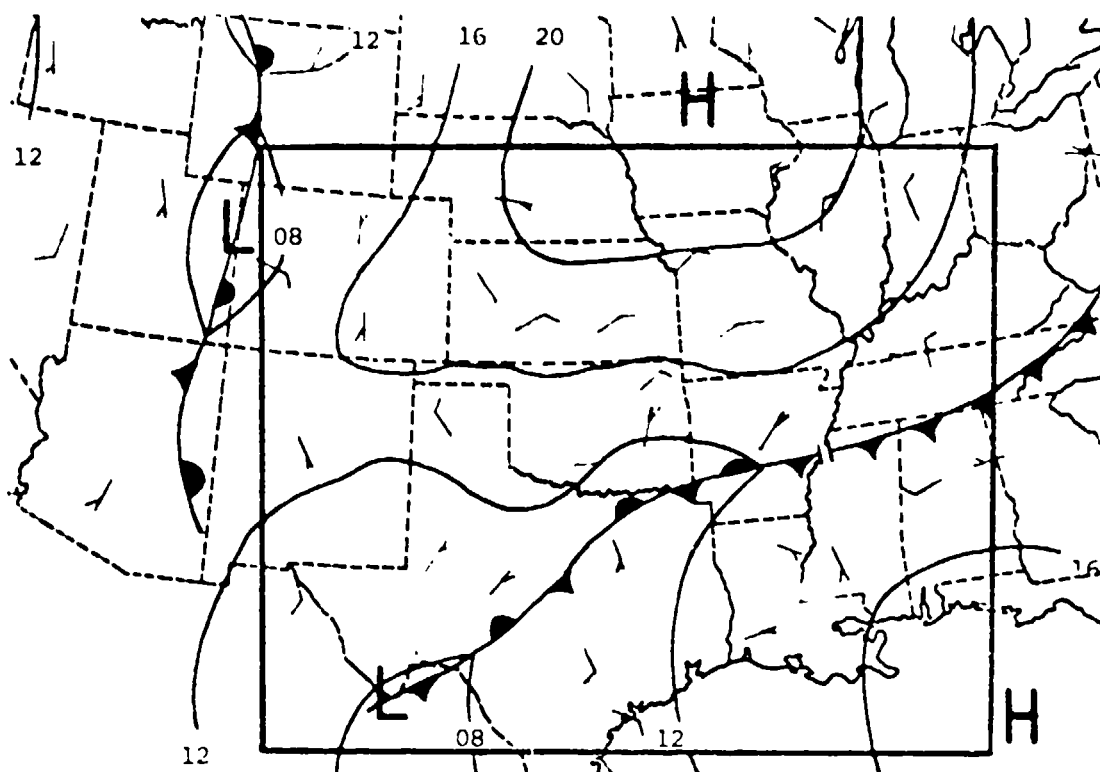
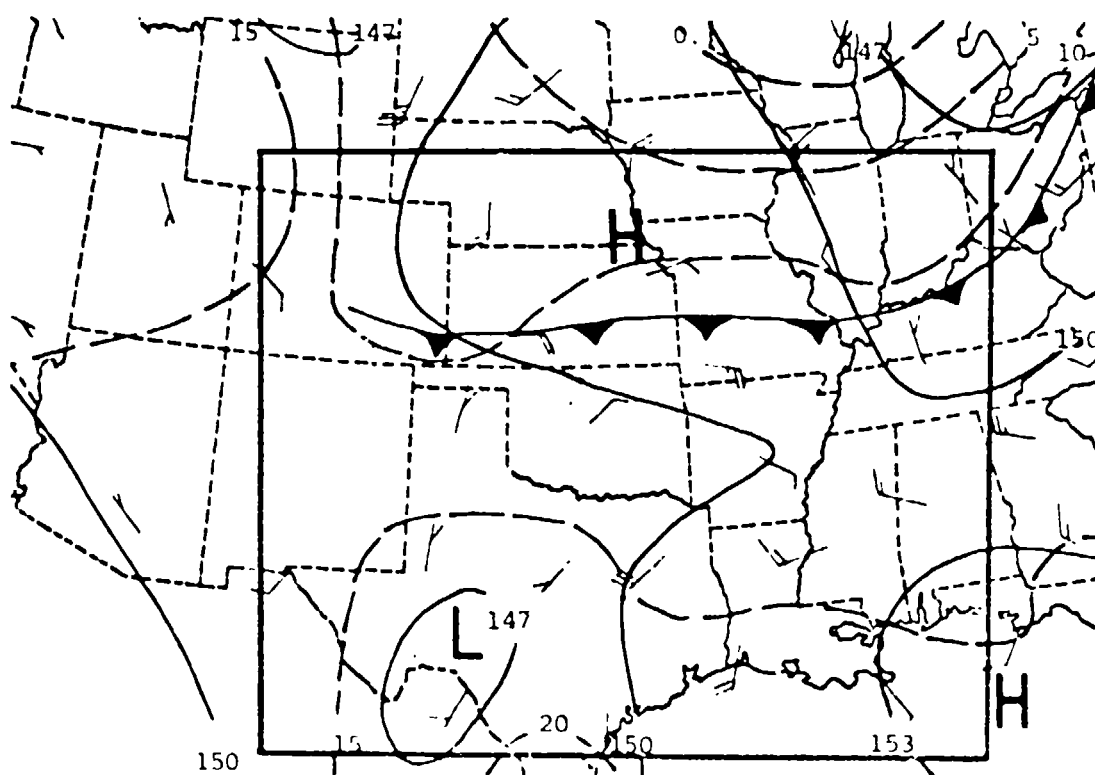


Fig. 6. Surface chart for 0600 GMT 21 May 1979.

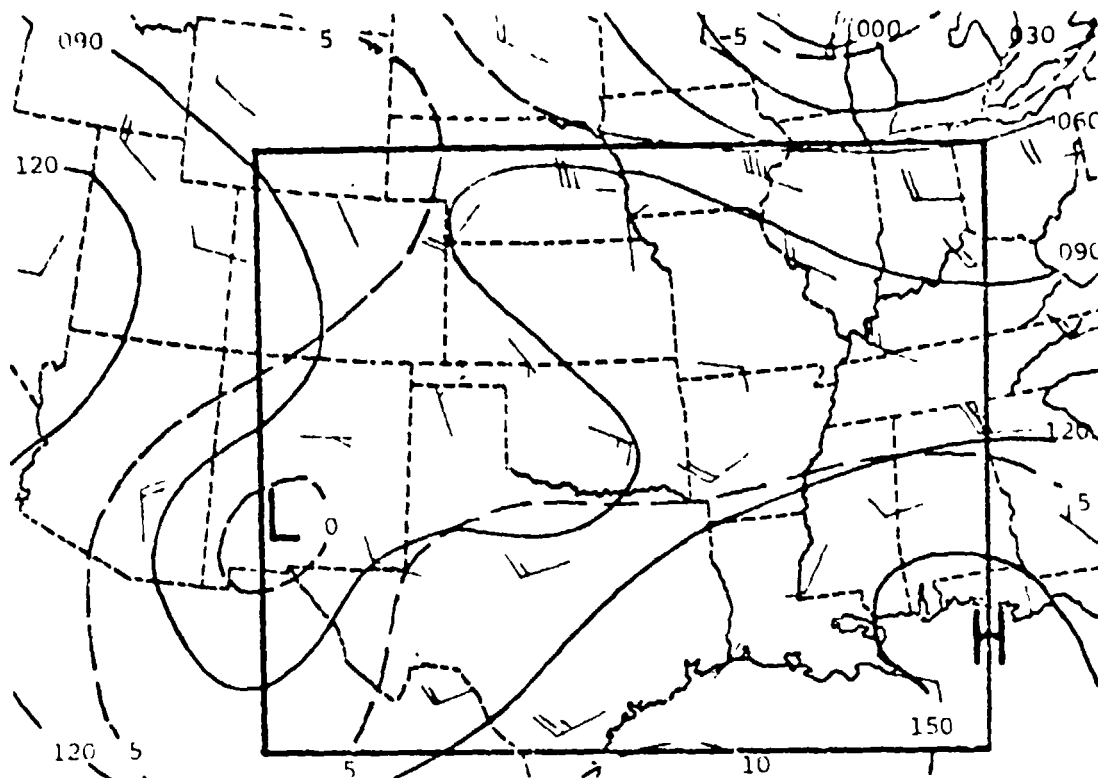


(a) Surface

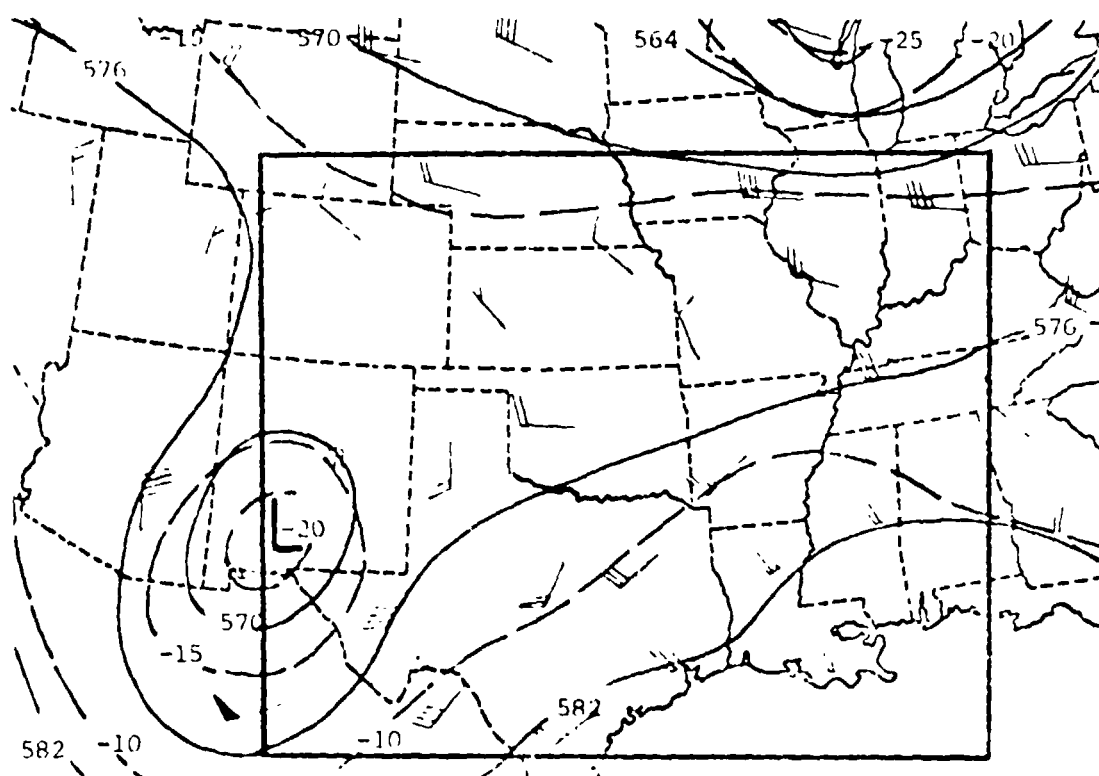


(b) 850 mb

Fig. 7. Synoptic charts for 1200 GMT 21 May 1979.

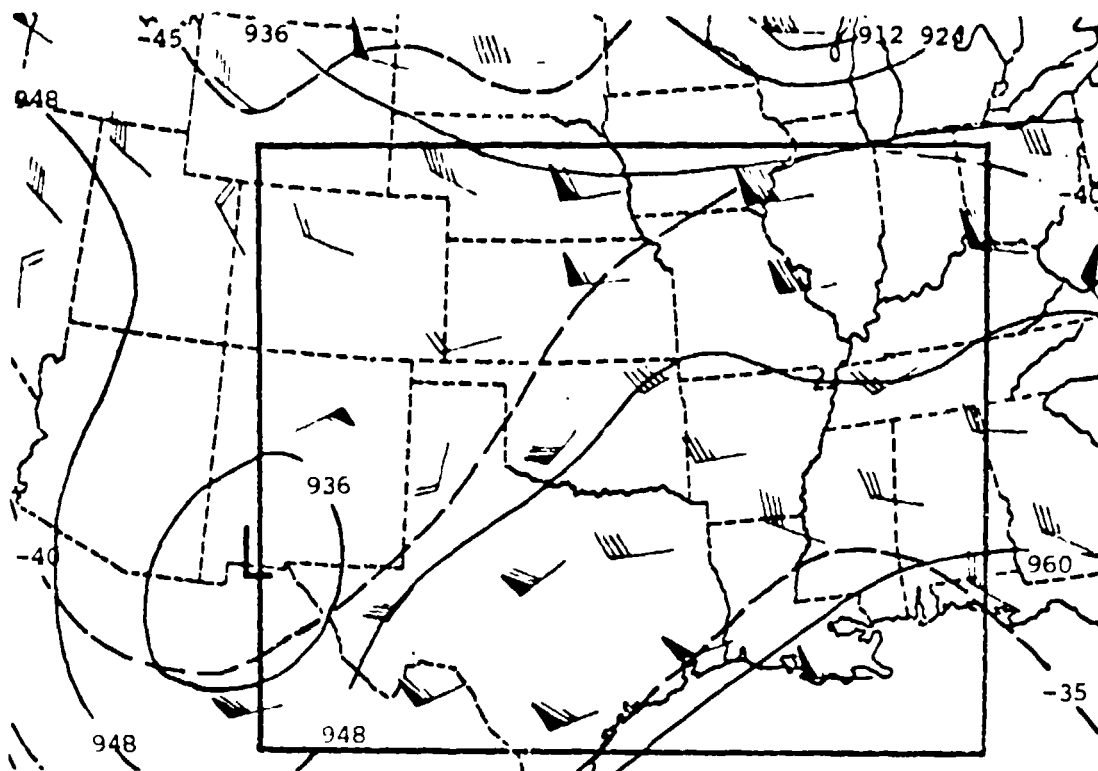


(c) 700 mb

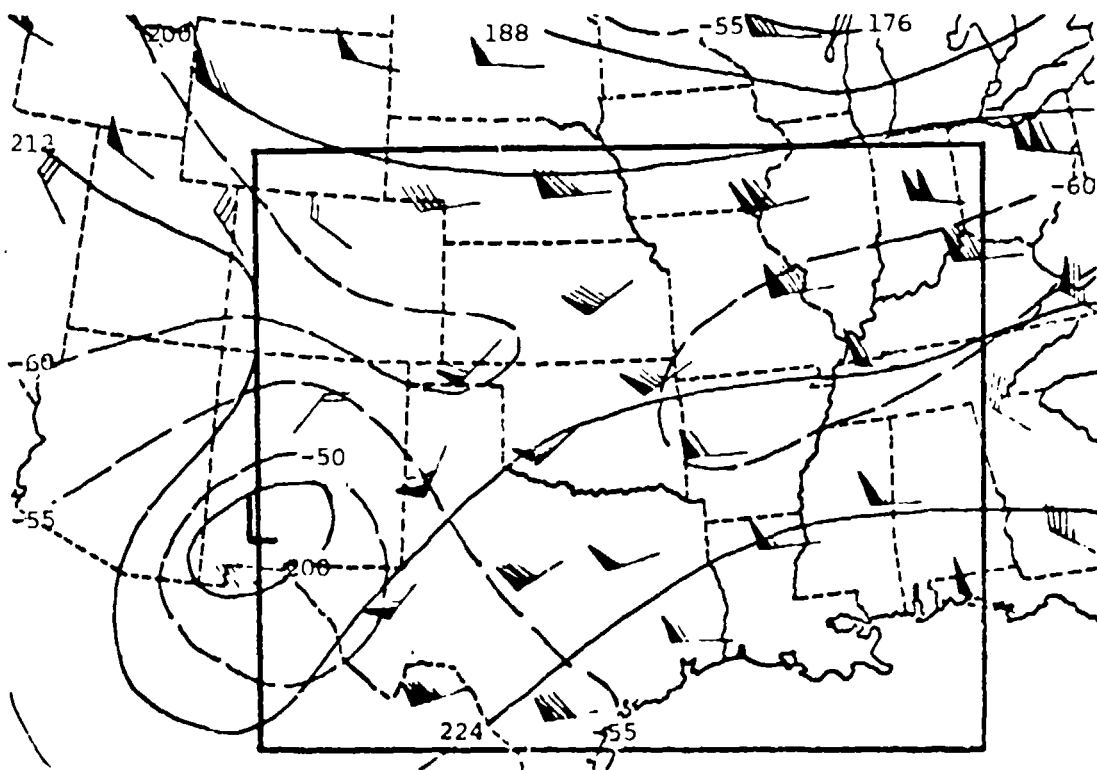


(d) 500 mb

Fig. 7. Continued.

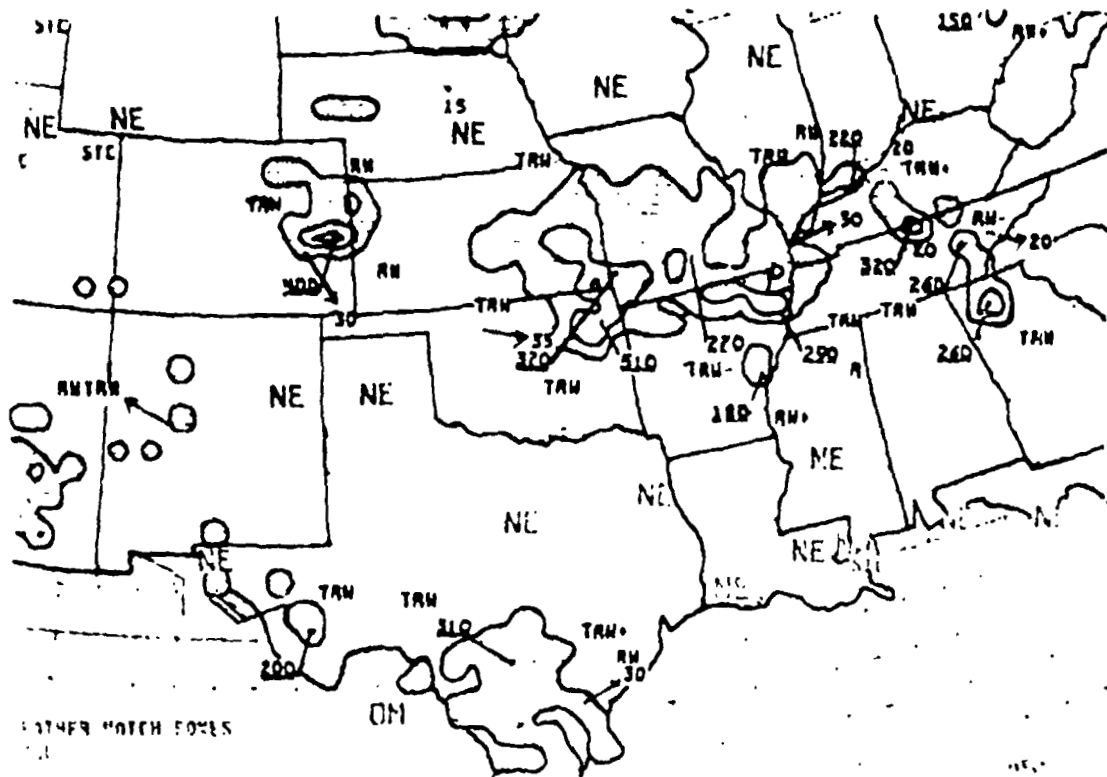


(e) 300 mb



(f) 200 mb

Fig. 7. Concluded.



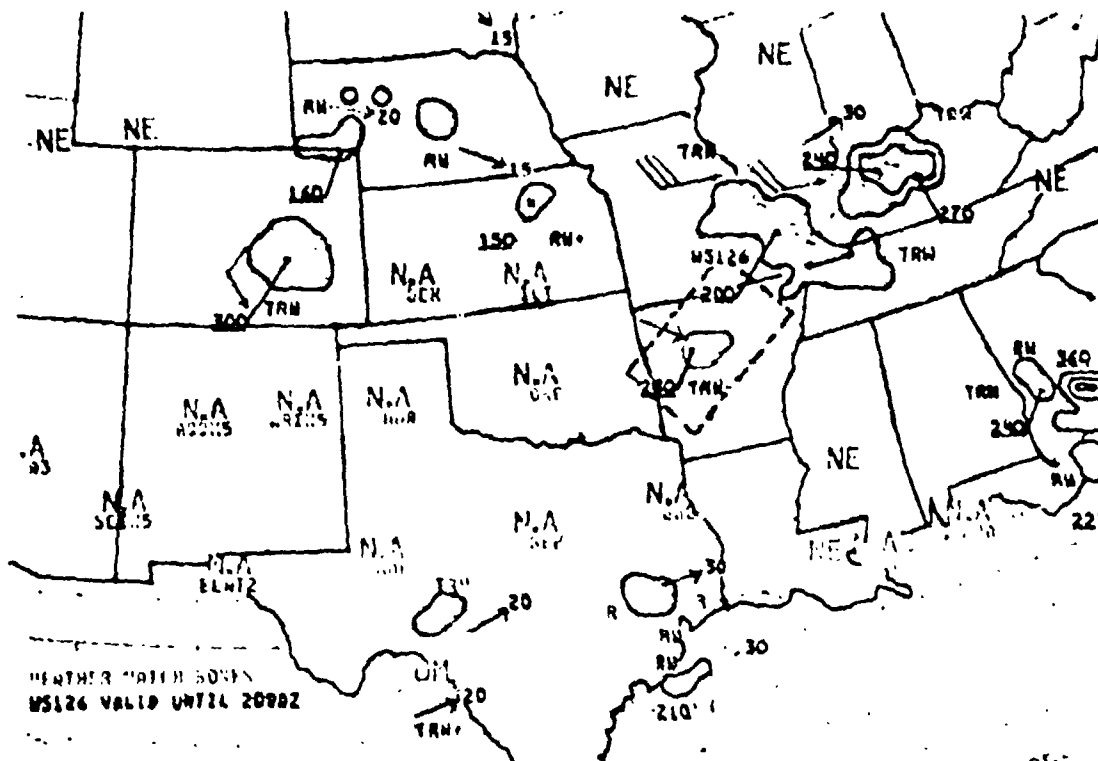


Fig. 10. Radar summary for 1735 GMT 20 May 1979.

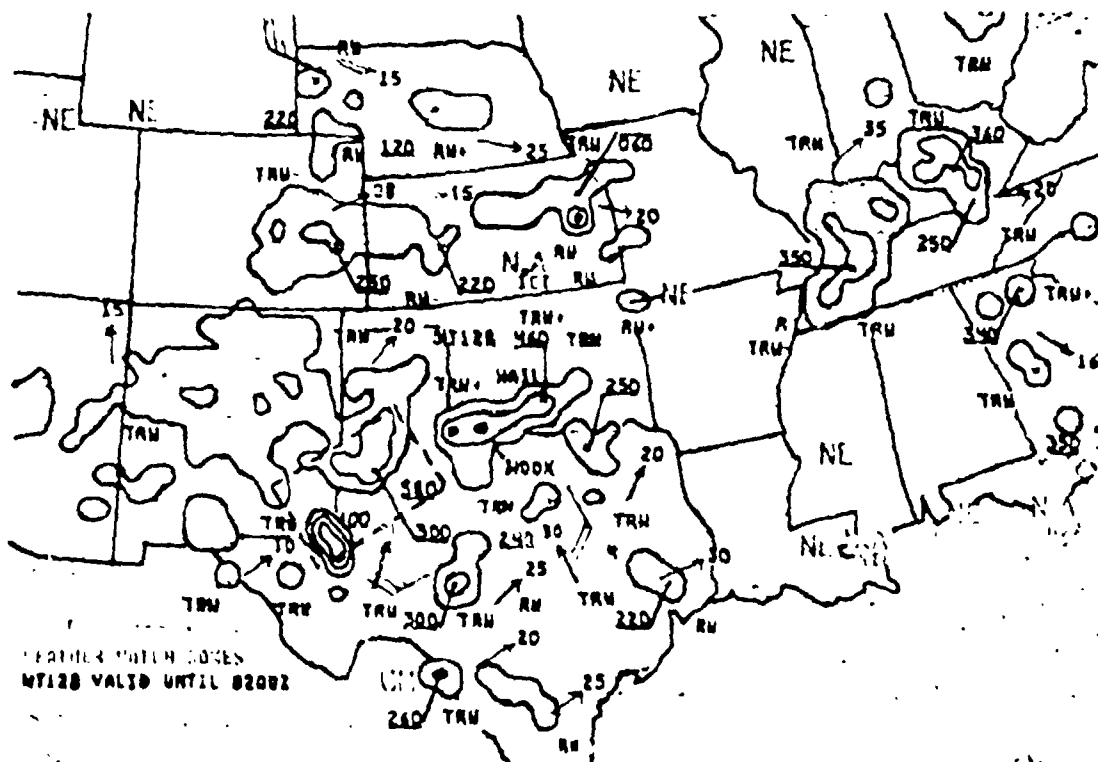
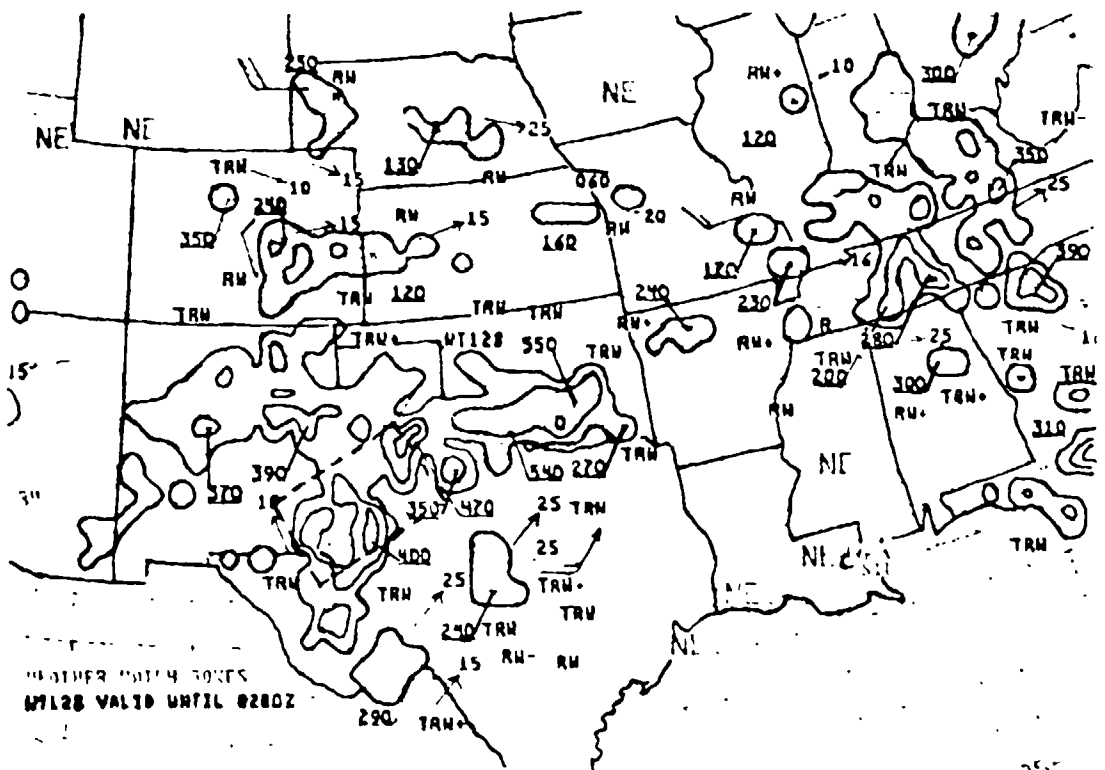
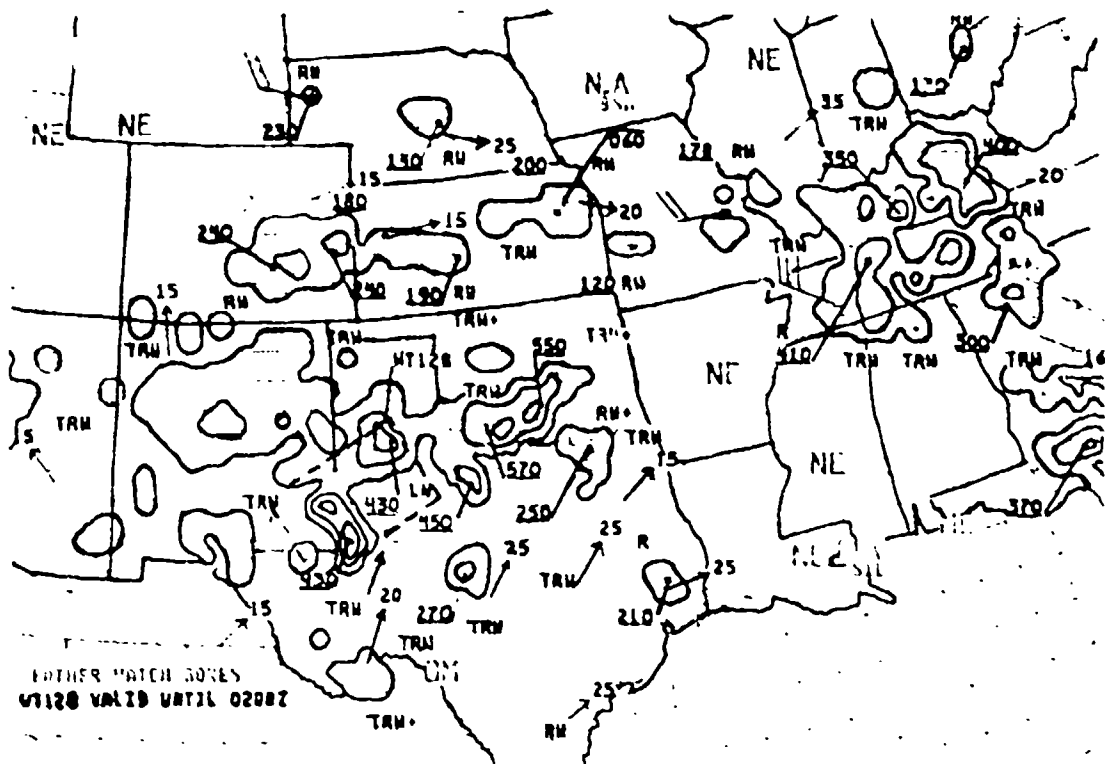
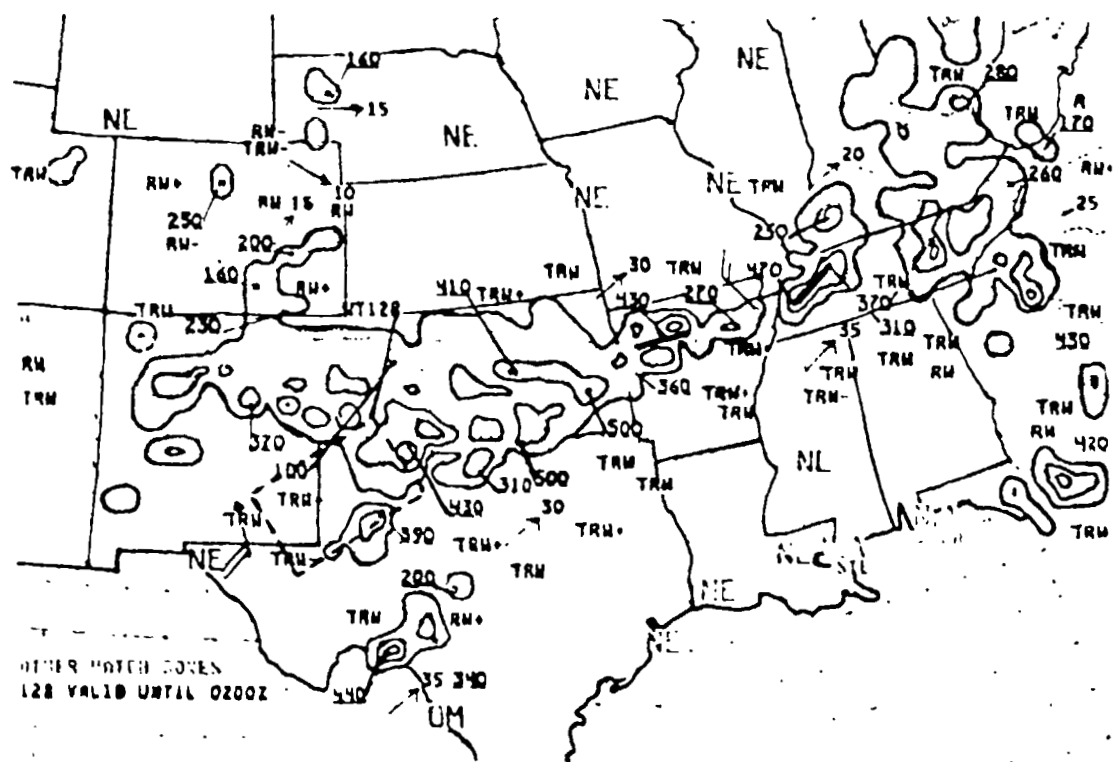
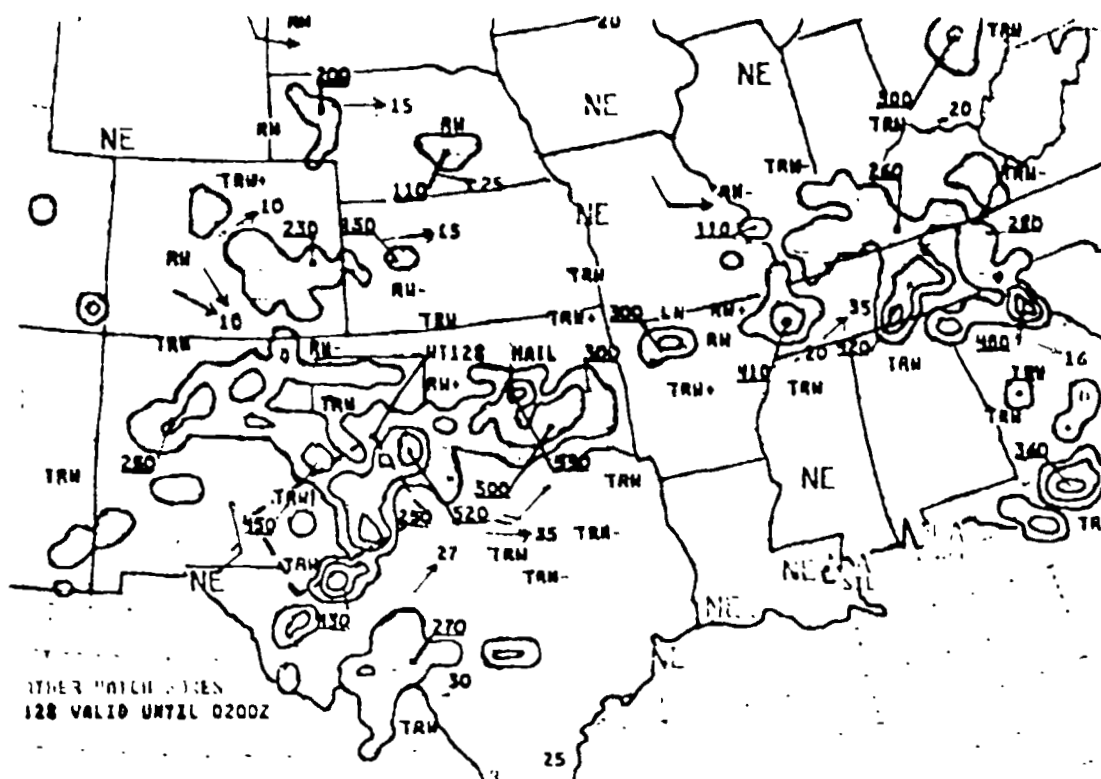


Fig. 11. Radar summary for 1935 GMT 20 May 1979.





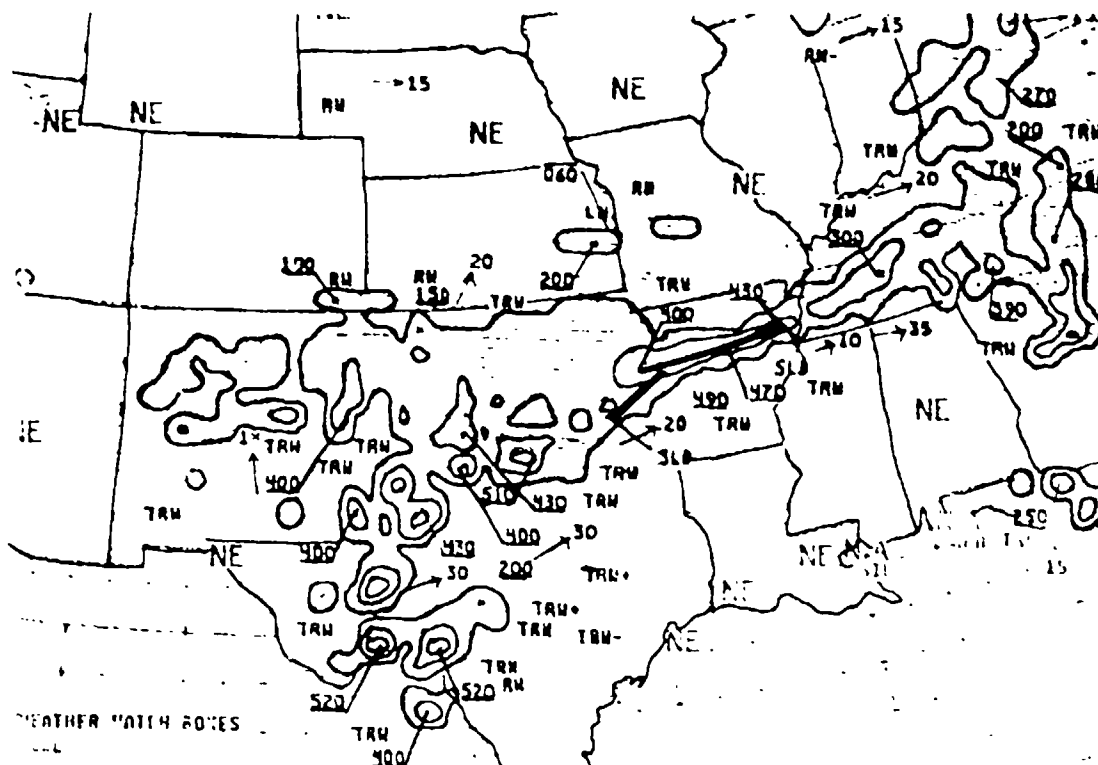


Fig. 16. Radar summary for 0135 GMT 21 May 1979.

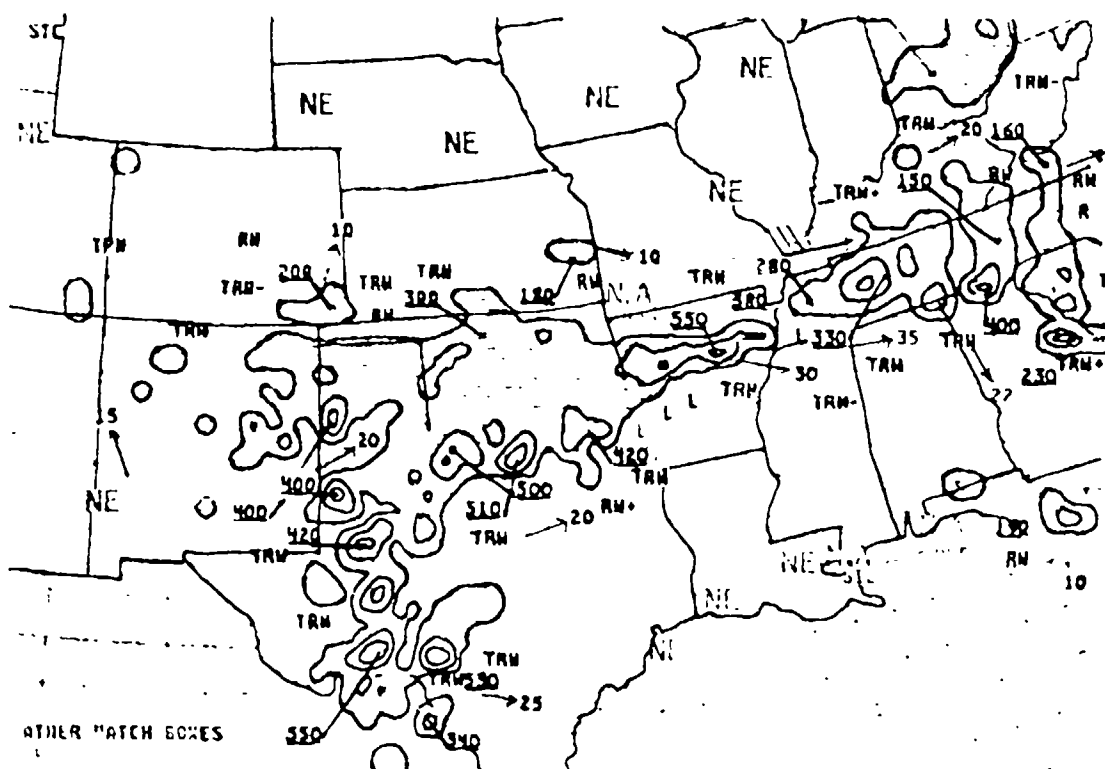


Fig. 17. Radar summary for 0235 GMT 21 May 1979.

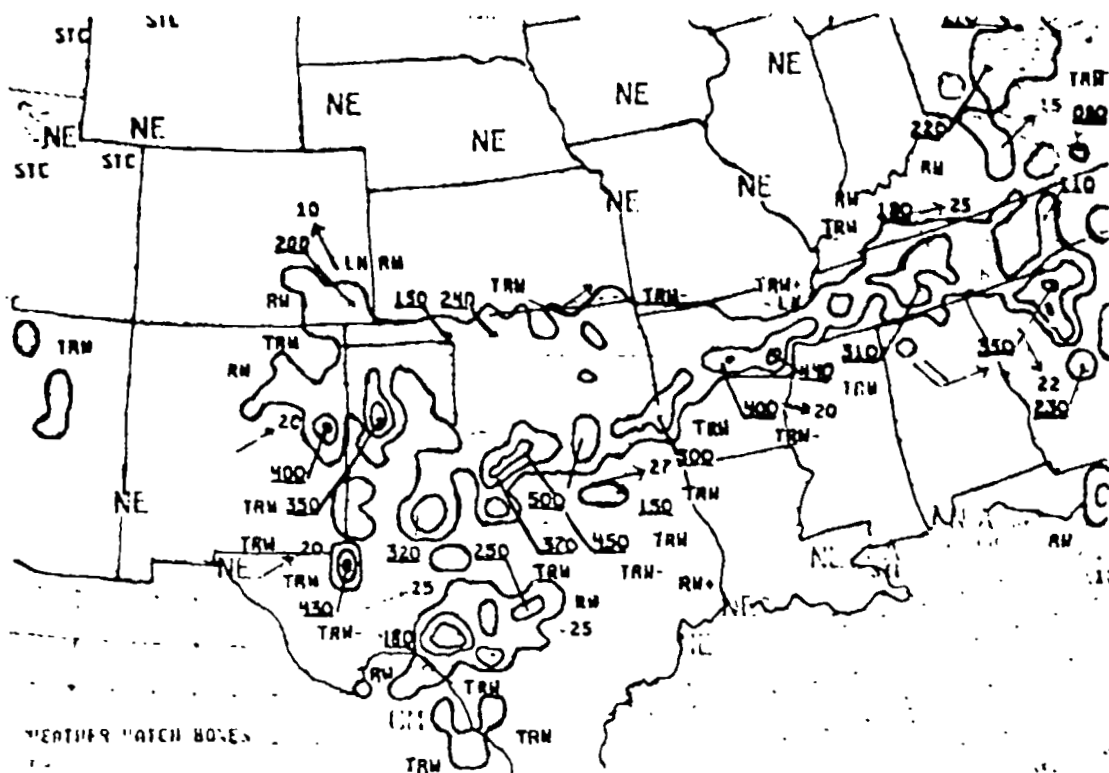


Fig. 18. Radar summary for 0435 GMT 21 May 1979.

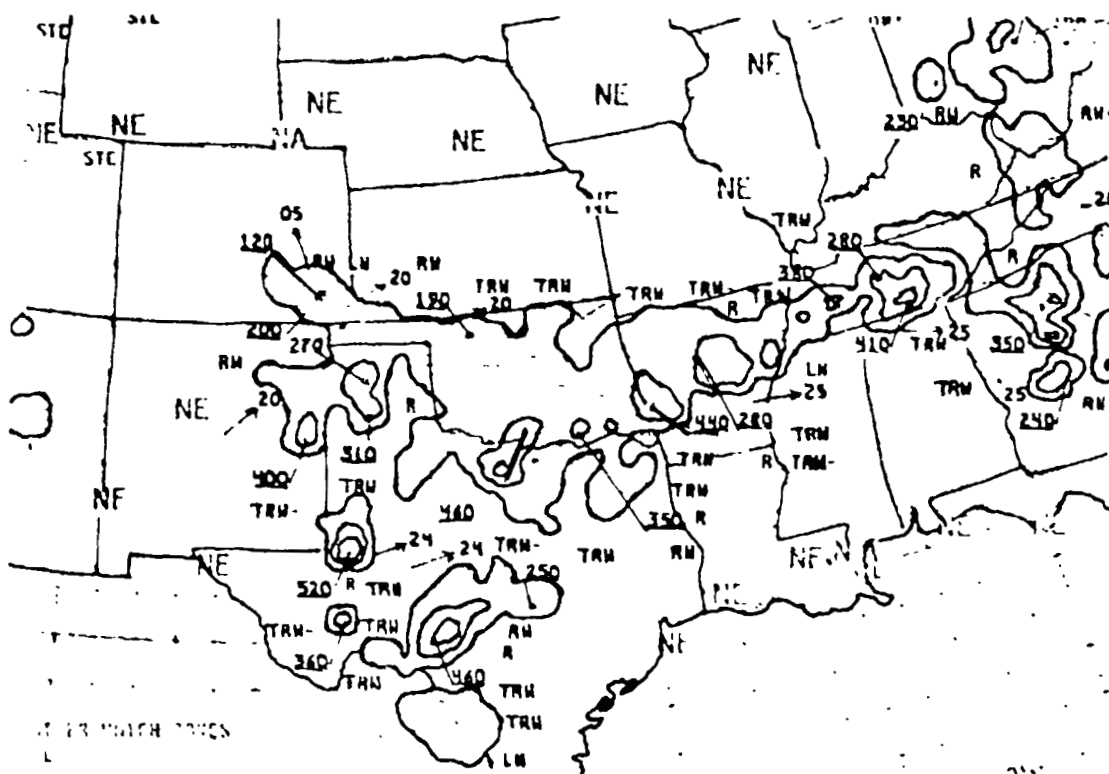
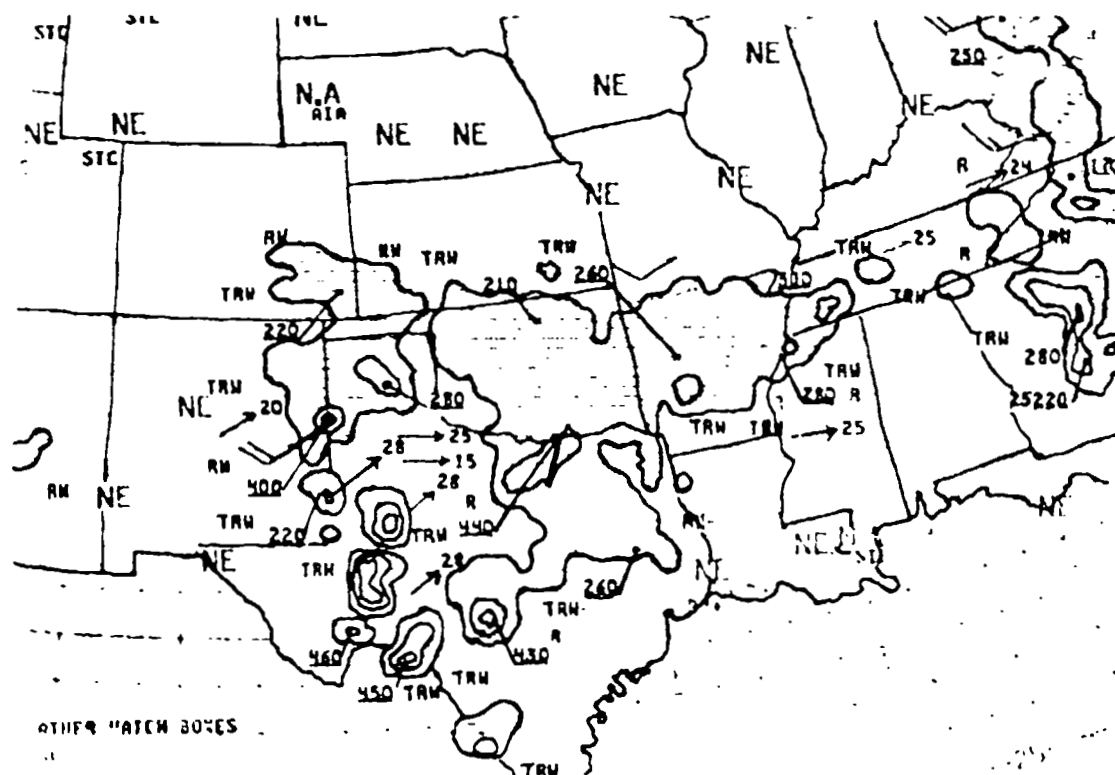
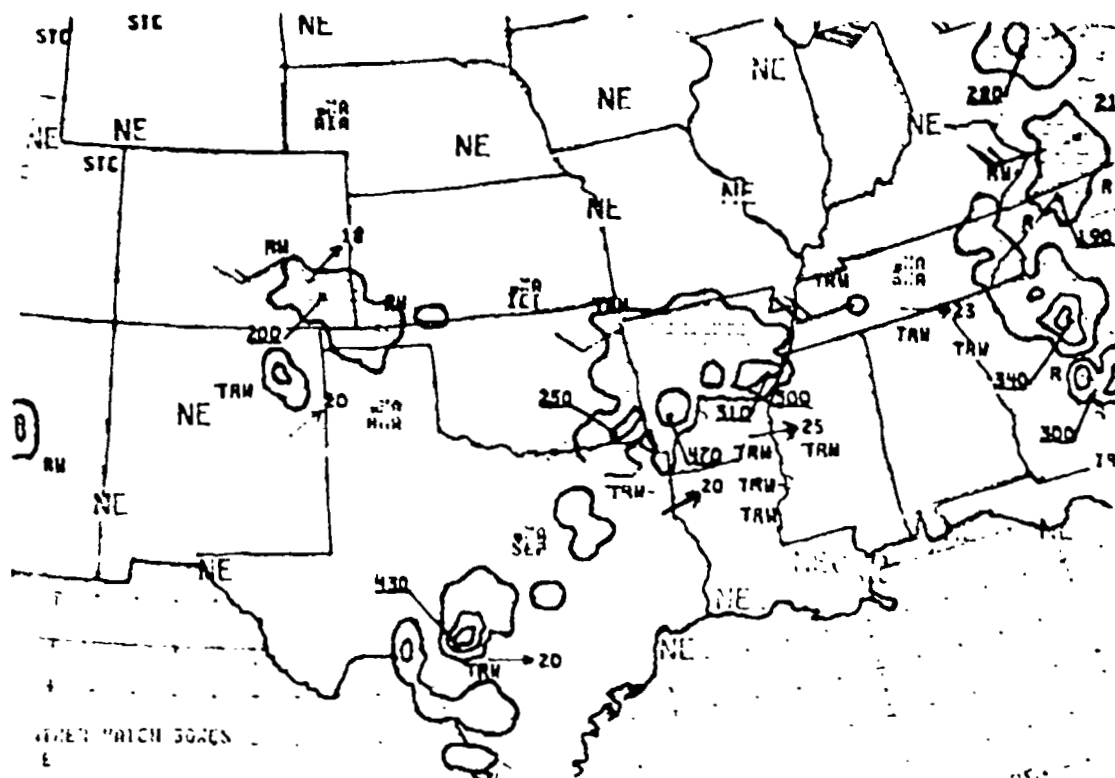
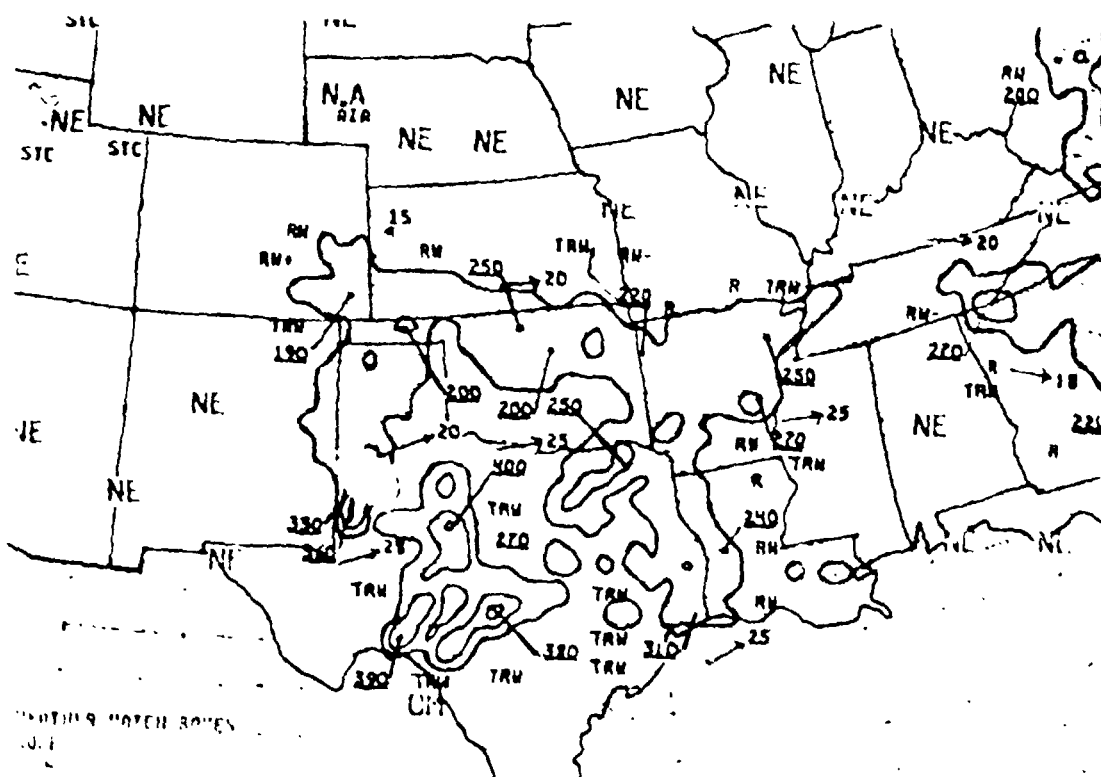
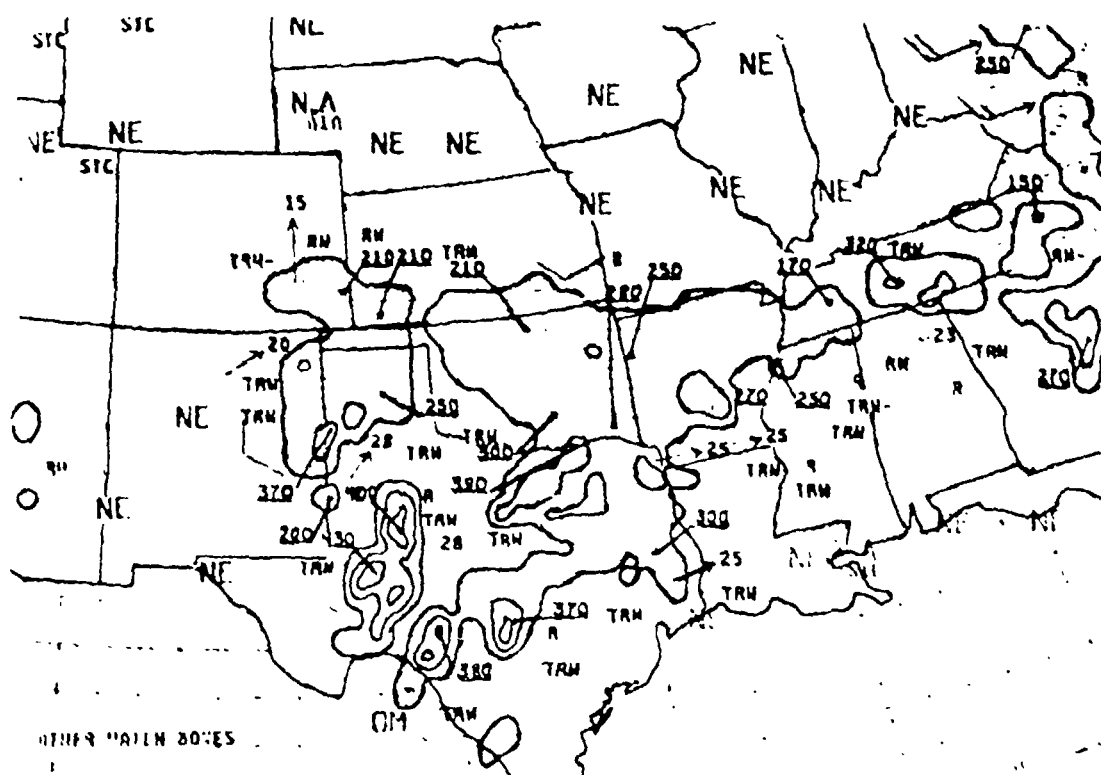


Fig. 19. Radar summary for 0535 GMT 21 May 1979.





1201 20MY79 12A-2 01522 13342 PQ34N95W-1

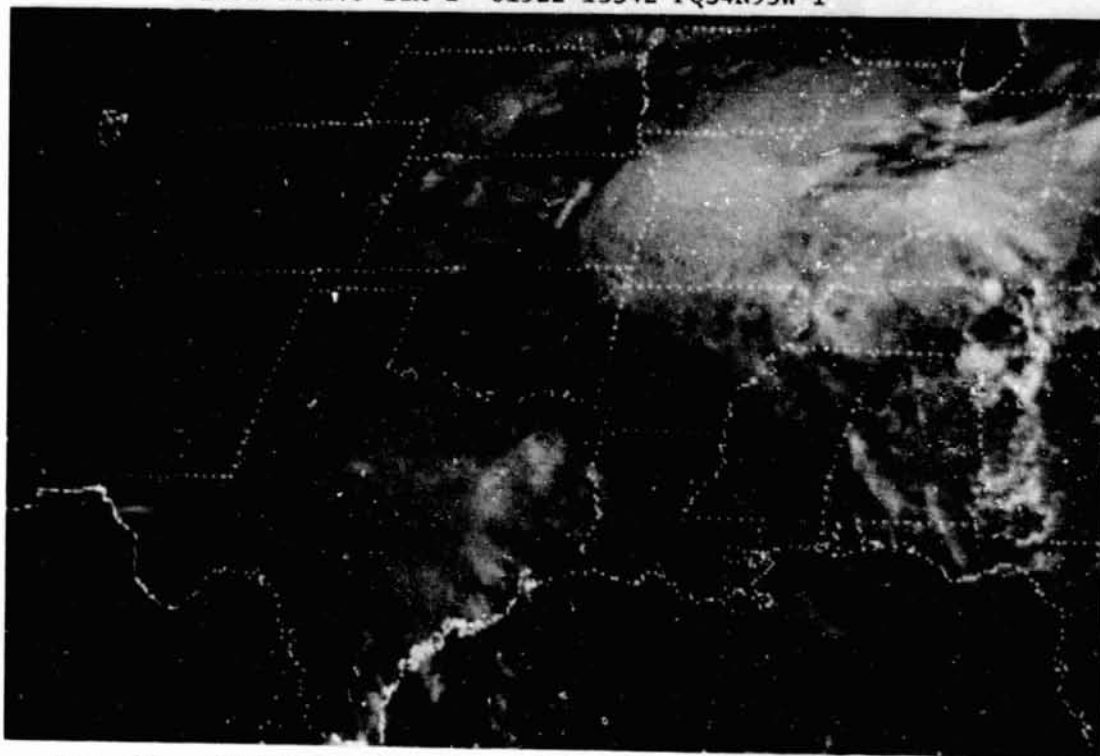


Fig. 24. GOES-East visual satellite imagery for 1201 GMT
20 May 1979.

1301 20MY79 12A-2 01524 13351 PQ34N95W-1

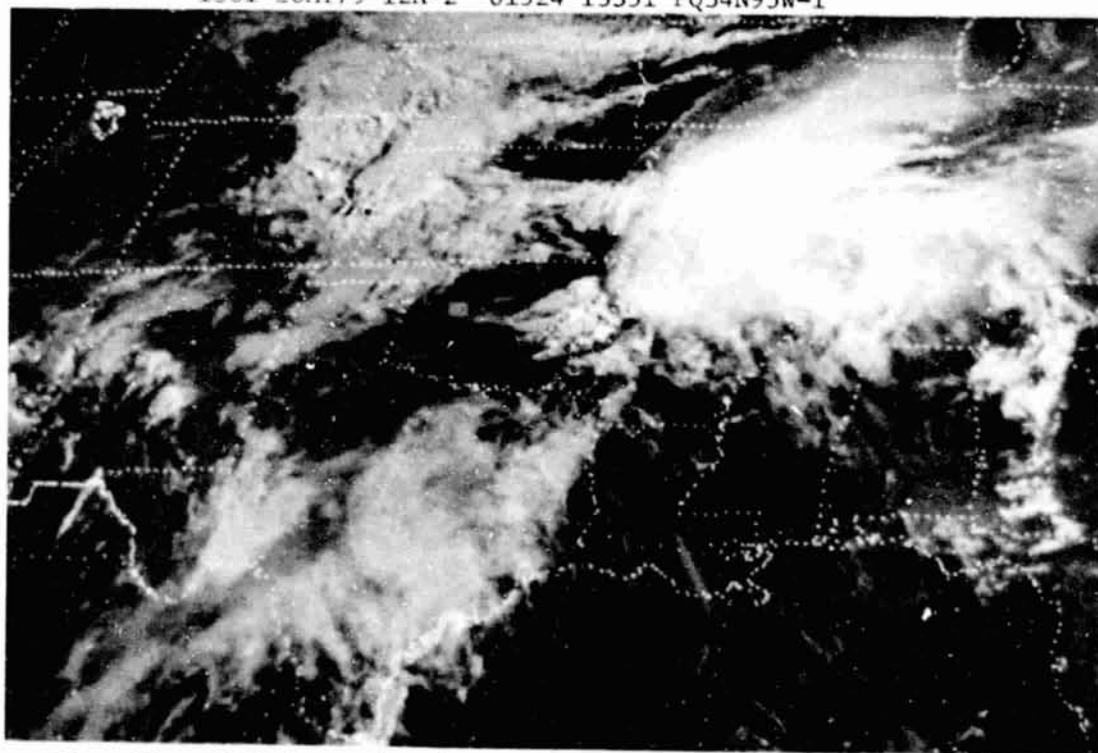


Fig. 25. GOES-East visual satellite imagery for 1301 GMT
20 May 1979.

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1401 20MY79 12A-2 01532 13352 PQ34N95W-1

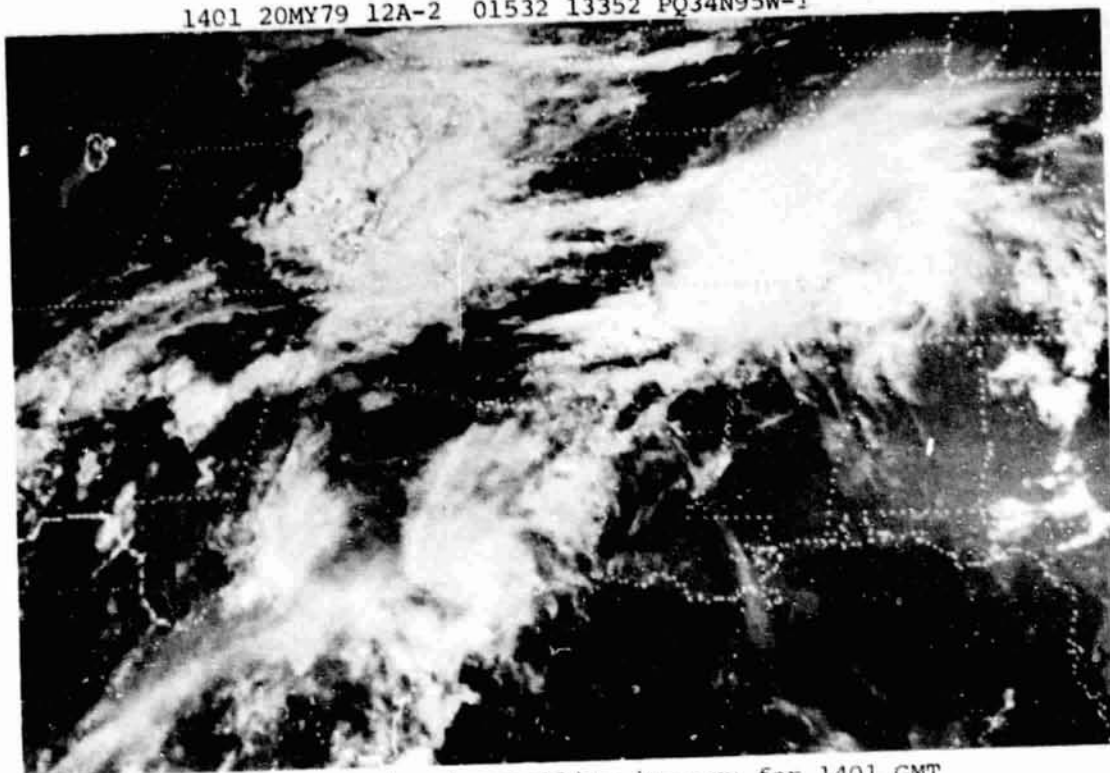


Fig. 26. GOES-East visual satellite imagery for 1401 GMT
20 May 1979. (Note: Boundaries shifted westward)

1501 20MY79 12A-2 01541 13352 PQ34N95W-1

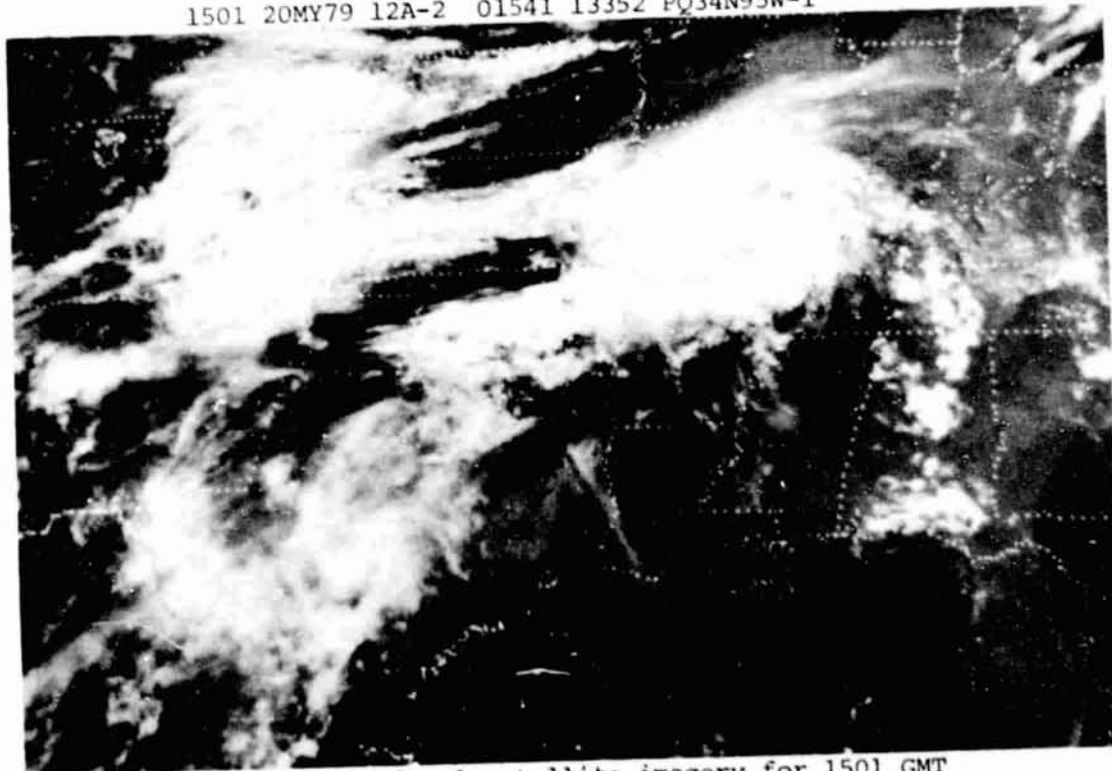


Fig. 27. GOES-East visual satellite imagery for 1501 GMT
20 May 1979. (Note: Boundaries shifted eastward)

1601 20MY79 12A-2 01531 13351 PQ34N95W-1

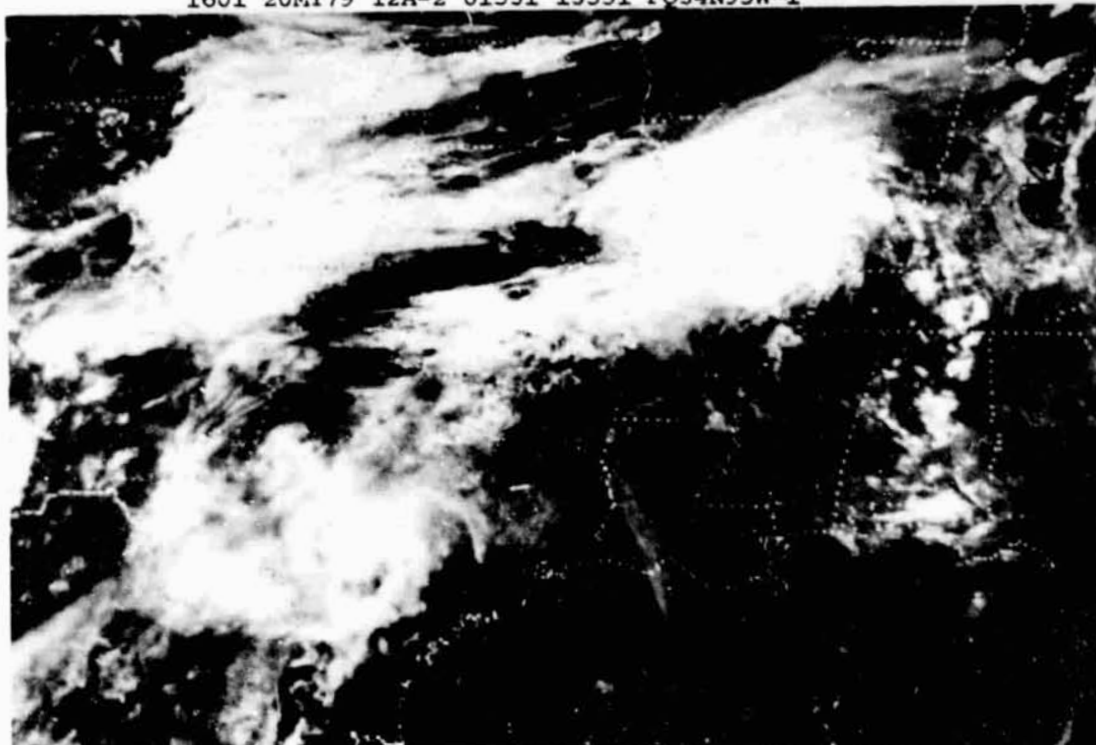


Fig. 28. GOES-East visual satellite imagery for 1601 GMT
20 May 1979. (Note: Boundaries shifted eastward)

1701 20MY79 12A-2 01543 13342 PQ34N95W-1

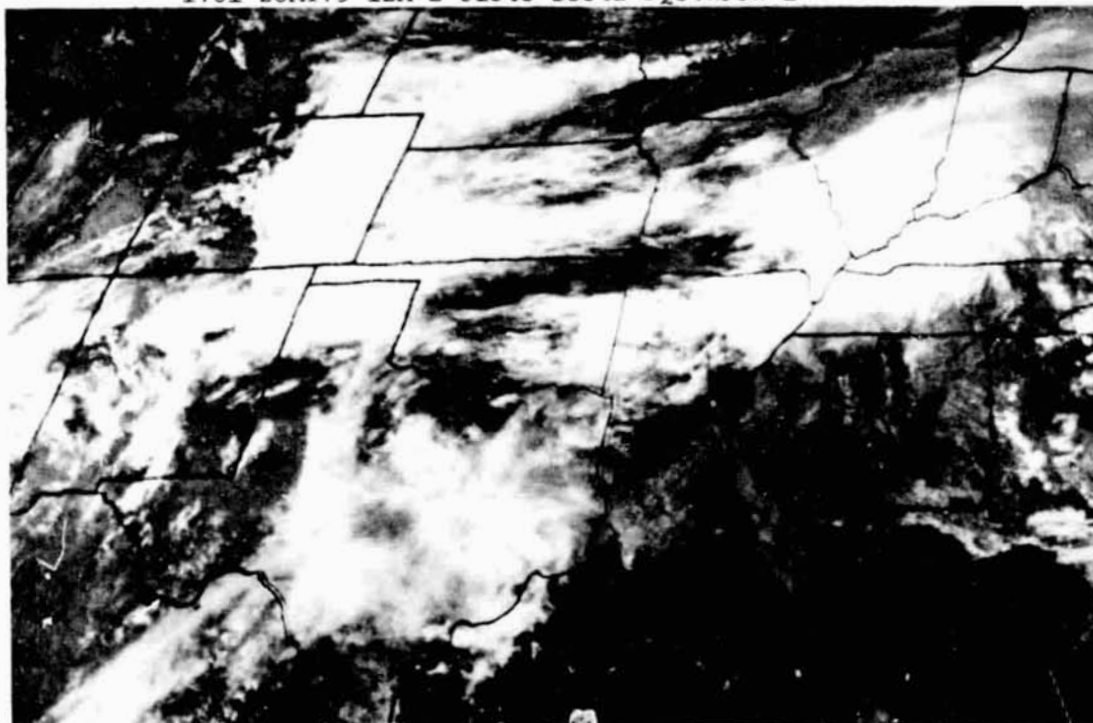


Fig. 29. GOES-East visual satellite imagery for 1701 GMT
20 May 1979.

1901 20MY79 12A-2 01543 13321 PQ34N95W-1

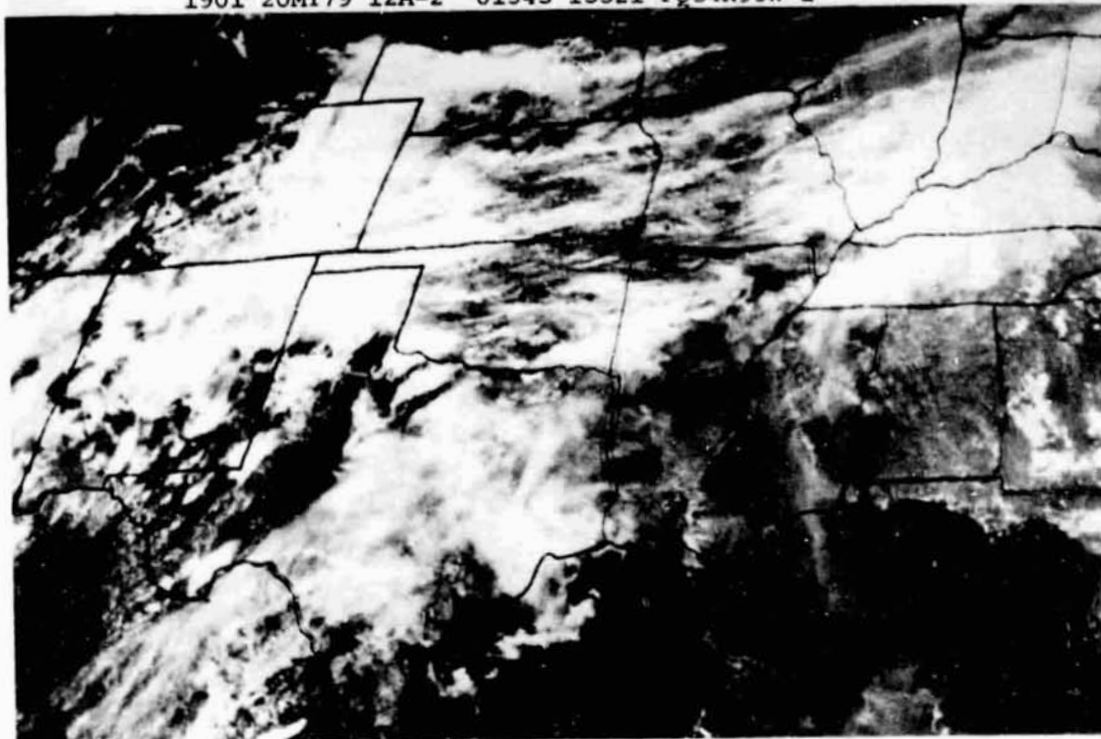


Fig. 30. GOES-East visual satellite imagery for 1901 GMT
20 May 1979.

2001 20MY79 12A-2 01551 13302 PQ34N95W-1

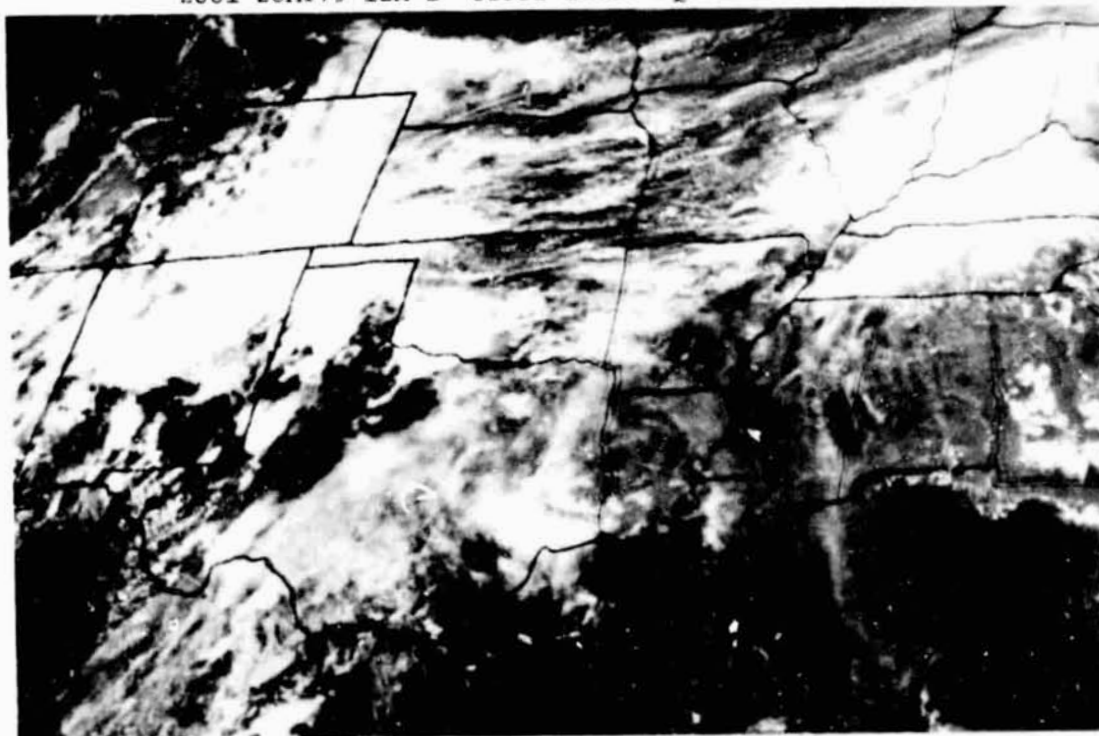


Fig. 31. GOES-East visual satellite imagery for 2001 GMT
20 May 1979.

2101 20MY79 12A-2 01551 13291 PQ34N95W-1

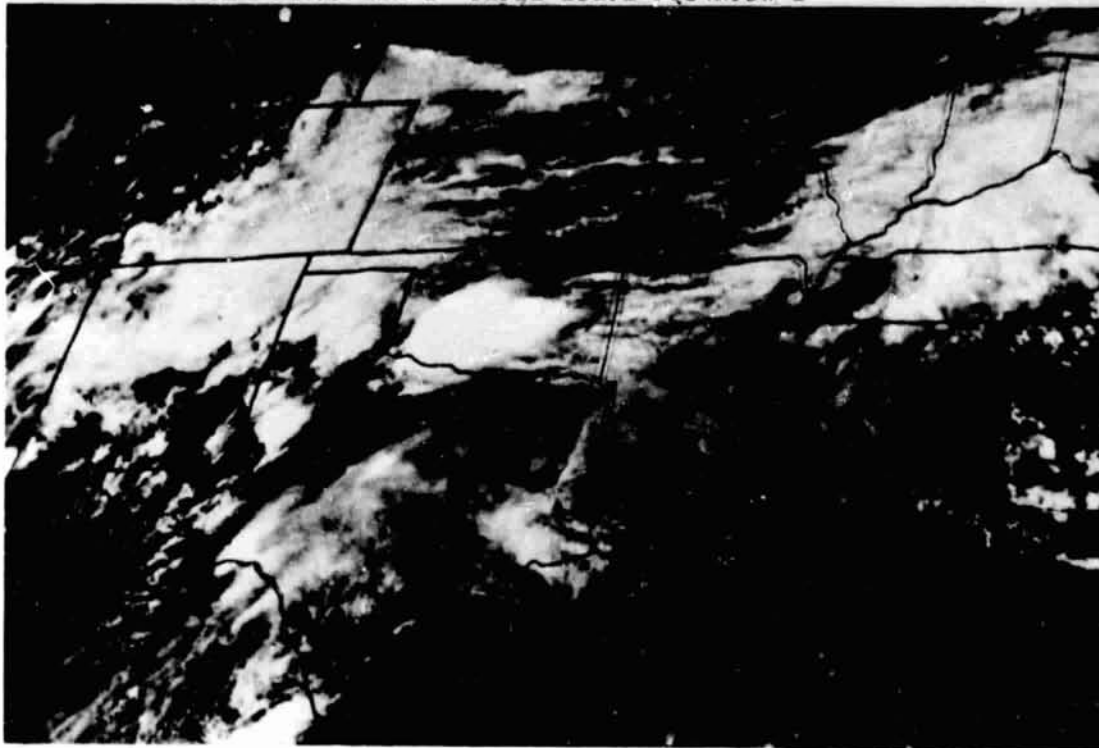


Fig. 32. GOES-East visual satellite imagery for 2101 GMT
20 May 1979.

2201 20MY79 12A-2 01554 13272 PQ34N95W-1

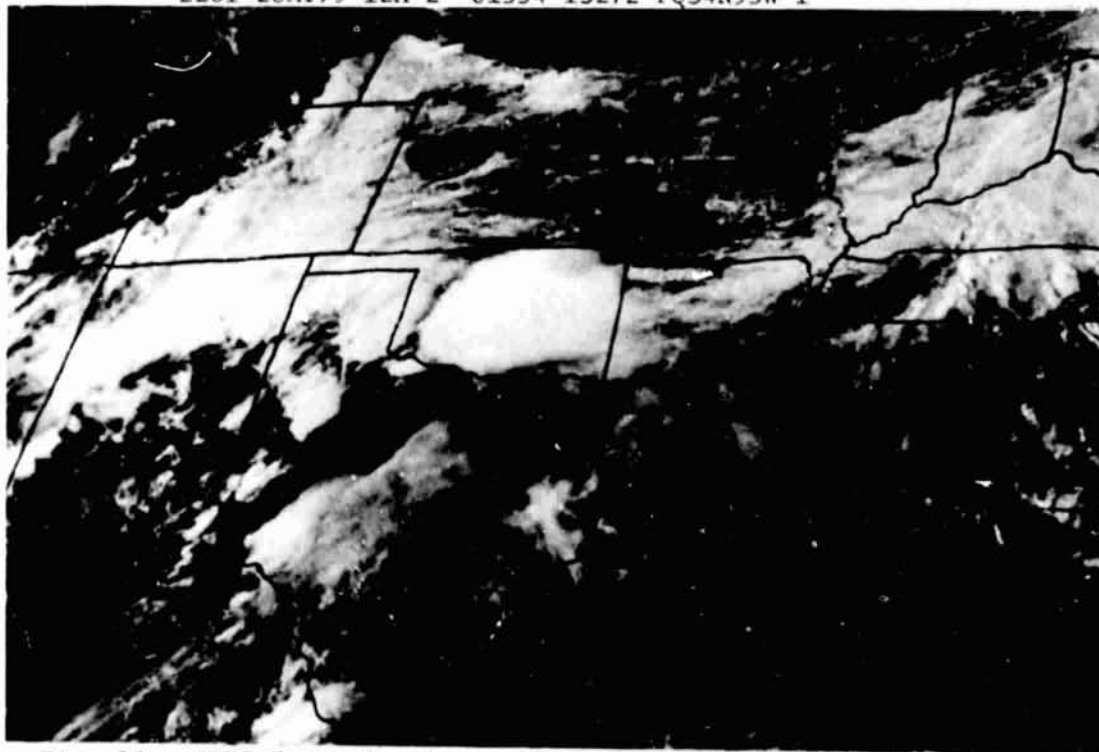


Fig. 33. GOES-East visual satellite imagery for 2201 GMT
20 May 1979.

2301 20MY79 12A-2 01544 13262 PQ34N95W-1

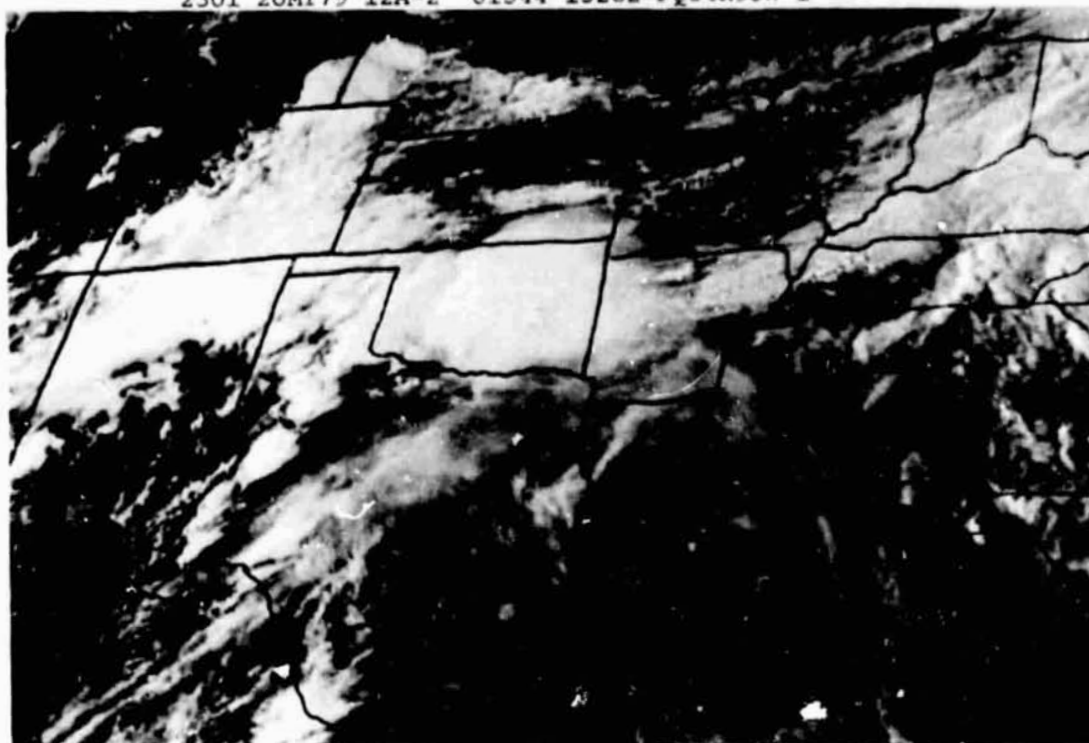


Fig. 34. GOES-East visual satellite imagery for 2301 GMT
20 May 1979.

0001 21MY79 12A-2 01532 13252 PQ34N95W-1

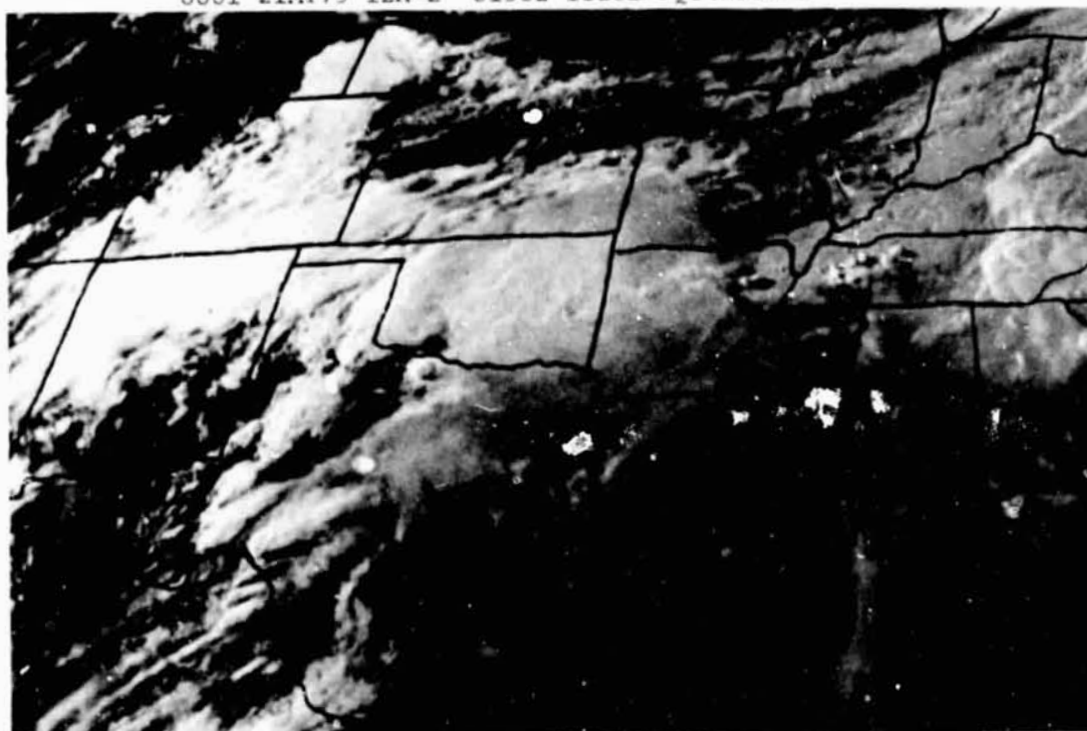


Fig. 35. GOES-East visual satellite imagery for 0001 GMT
21 May 1979.

01:00 21MY79 12A-Z 0006-1640 FULL DISC IR

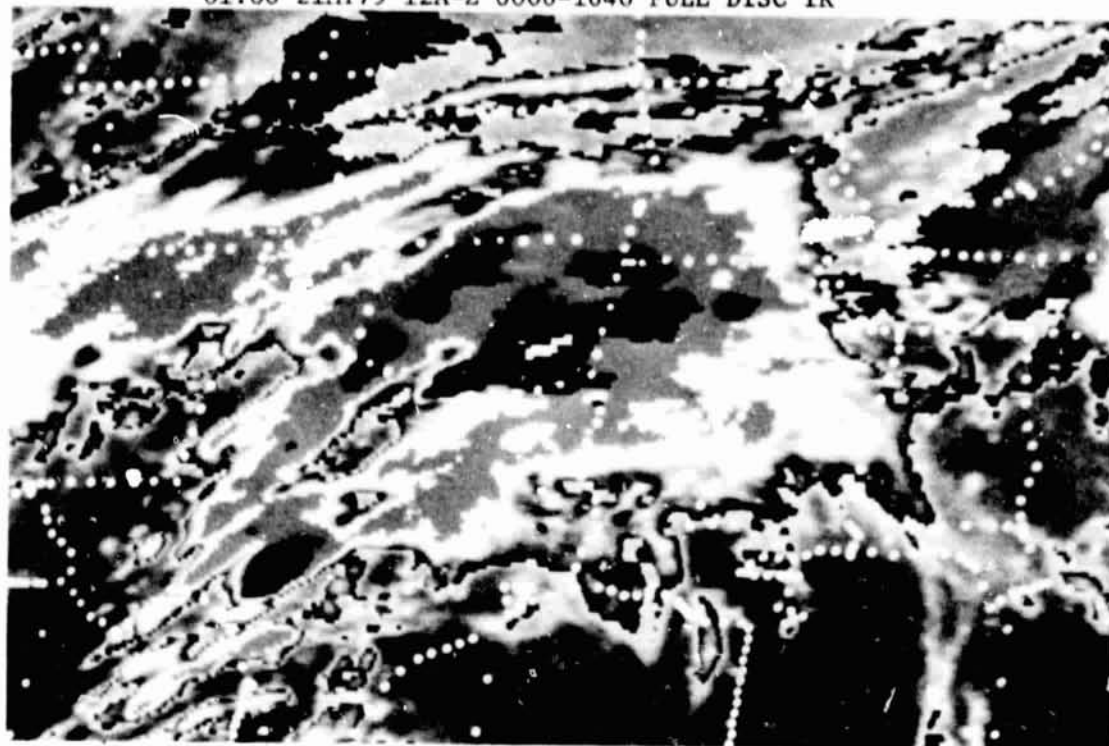


Fig. 36. GOES-East infrared satellite imagery for 0100 GMT
21 May 1979.

02:00 21MY79 12A-Z 0006-1640 FULL DISC IR

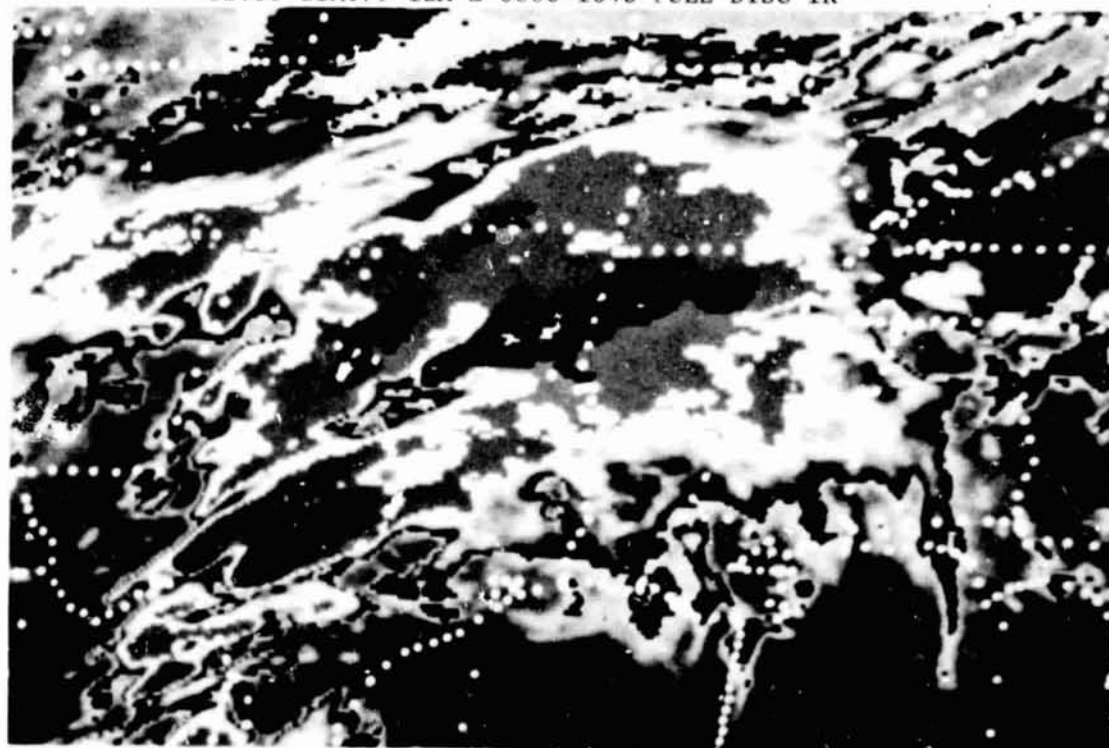


Fig. 37. GOES-East infrared satellite imagery for 0200 GMT
21 May 1979.

03:00 21MY79 12A-Z 0006-1640 FULL DISC IR

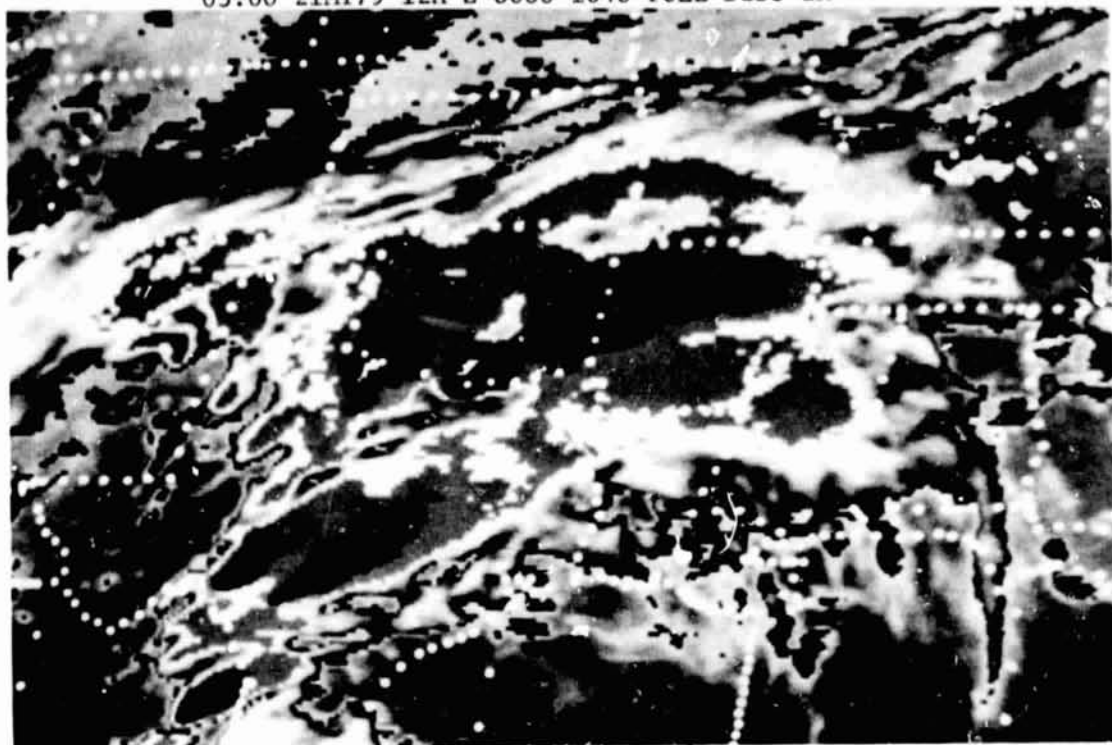


Fig. 38. GOES-East infrared satellite imagery for 0300 GMT
21 May 1979.

04:00 21MY79 12A-Z 0006-1640 FULL DISC IR

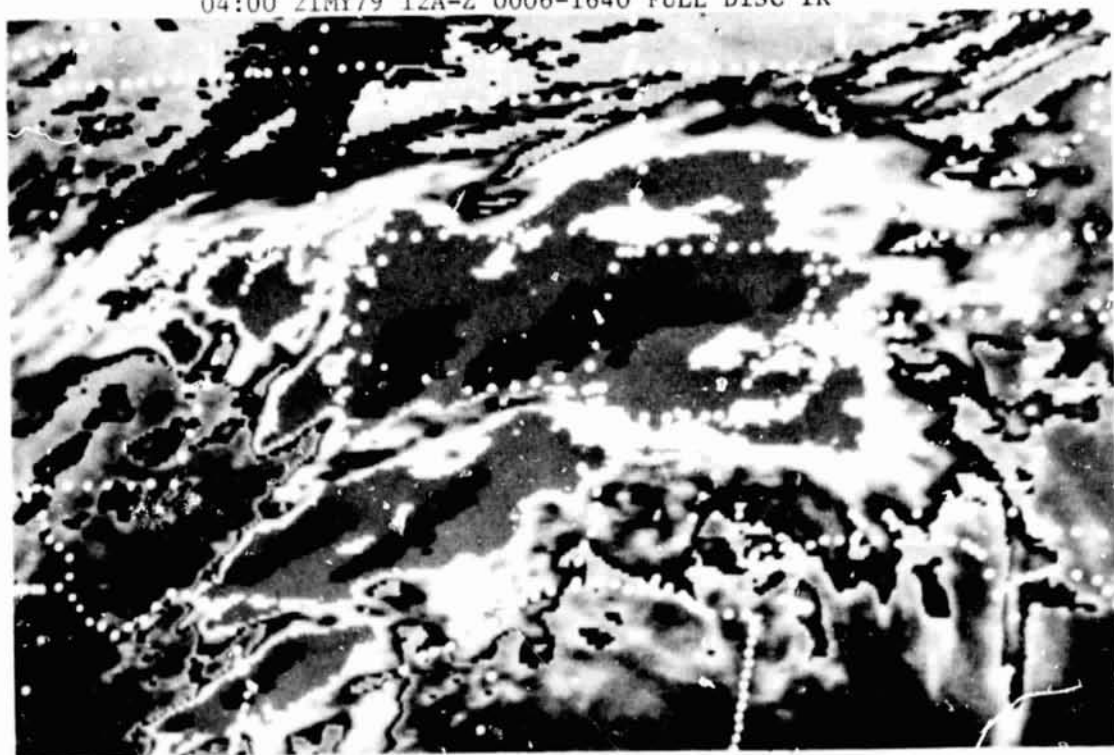


Fig. 39. GOES-East infrared satellite imagery for 0400 GMT
21 May 1979.

05:00 21MY79 12A-Z 0006-1640 FULL DISC IR

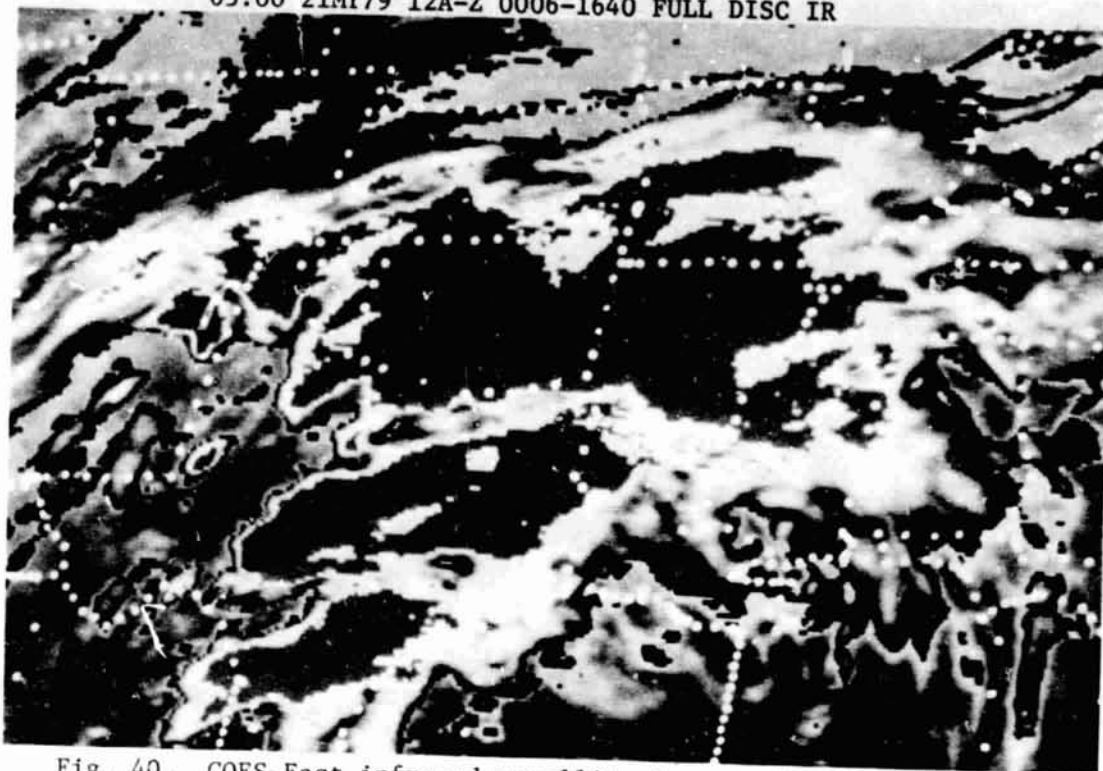


Fig. 40. GOES-East infrared satellite imagery for 0500 GMT
21 May 1979.

06:00 21MY79 12A-Z 0006-1640 FULL DISC IR

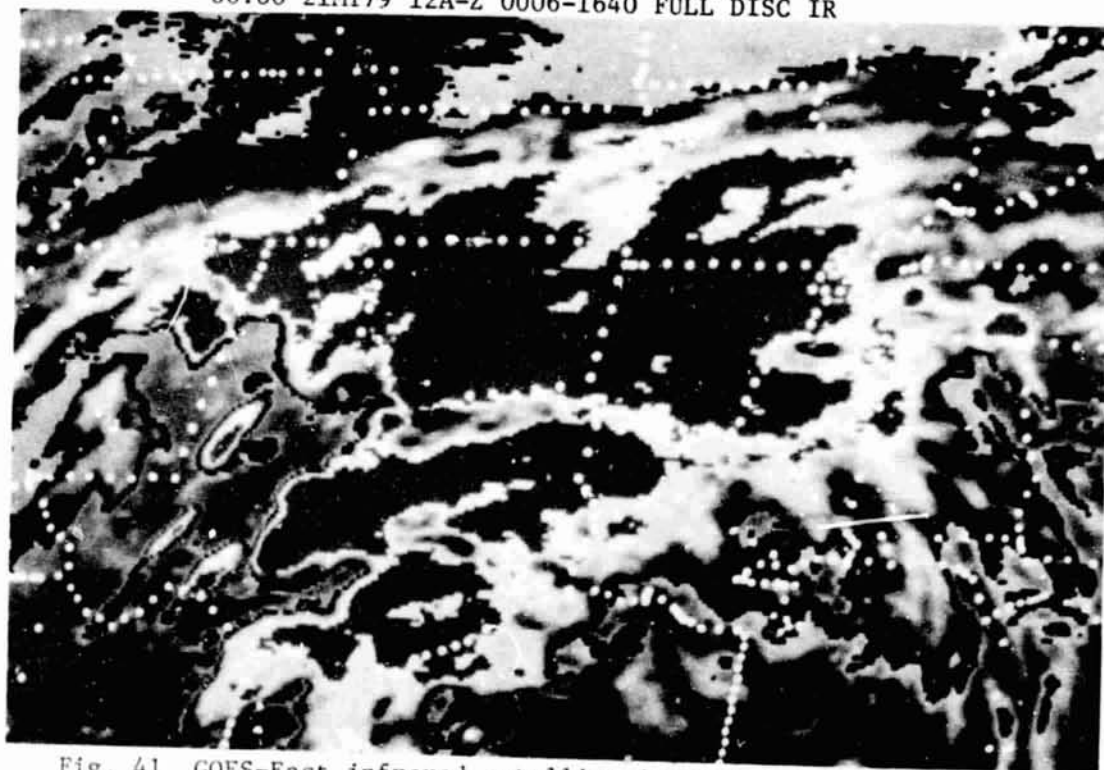


Fig. 41 GOES-East infrared satellite imagery for 0600 GMT
21 May 1979.

07:00 12A-Z 21MY79 0006-1640 FULL DISC IR

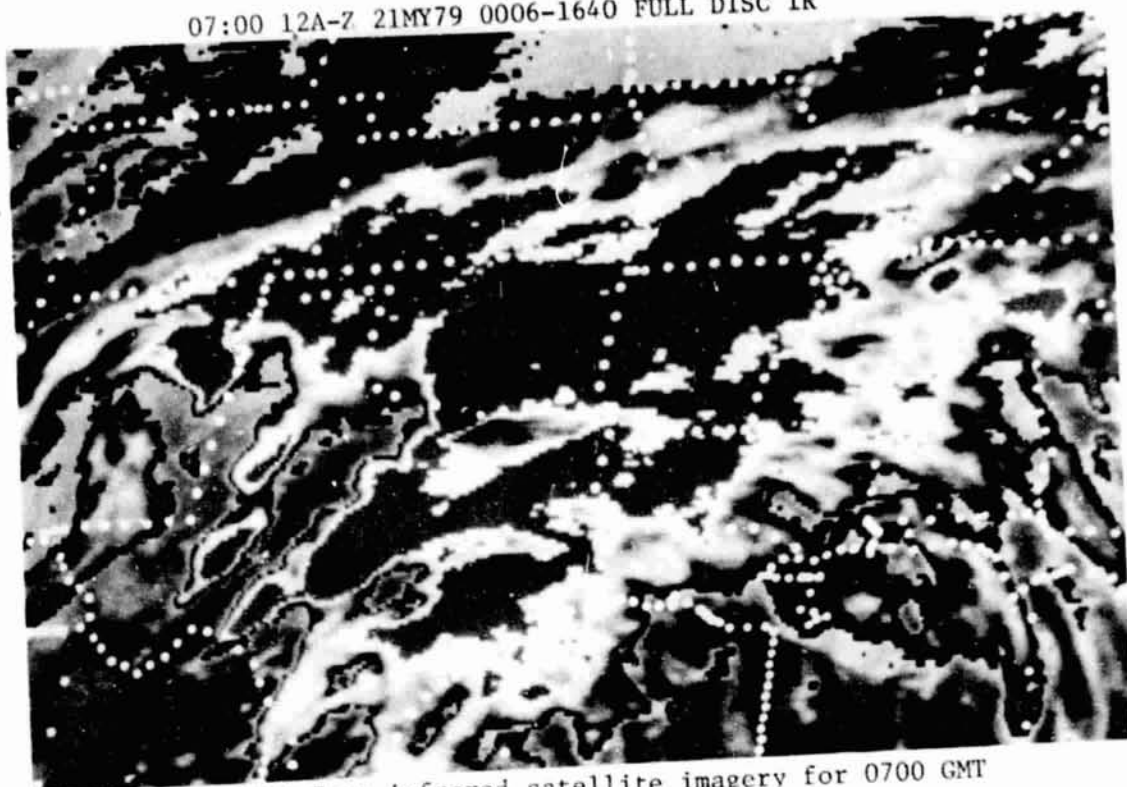


Fig. 42. GOES-East infrared satellite imagery for 0700 GMT
21 May 1979.

08:00 21MY79 12A-Z 0006-1640 FULL DISC IR



Fig. 43. GOES-East infrared satellite imagery for 0800 GMT
21 May 1979.

09:00 21MY79 12A-Z 0006-1 FULL DISC IR

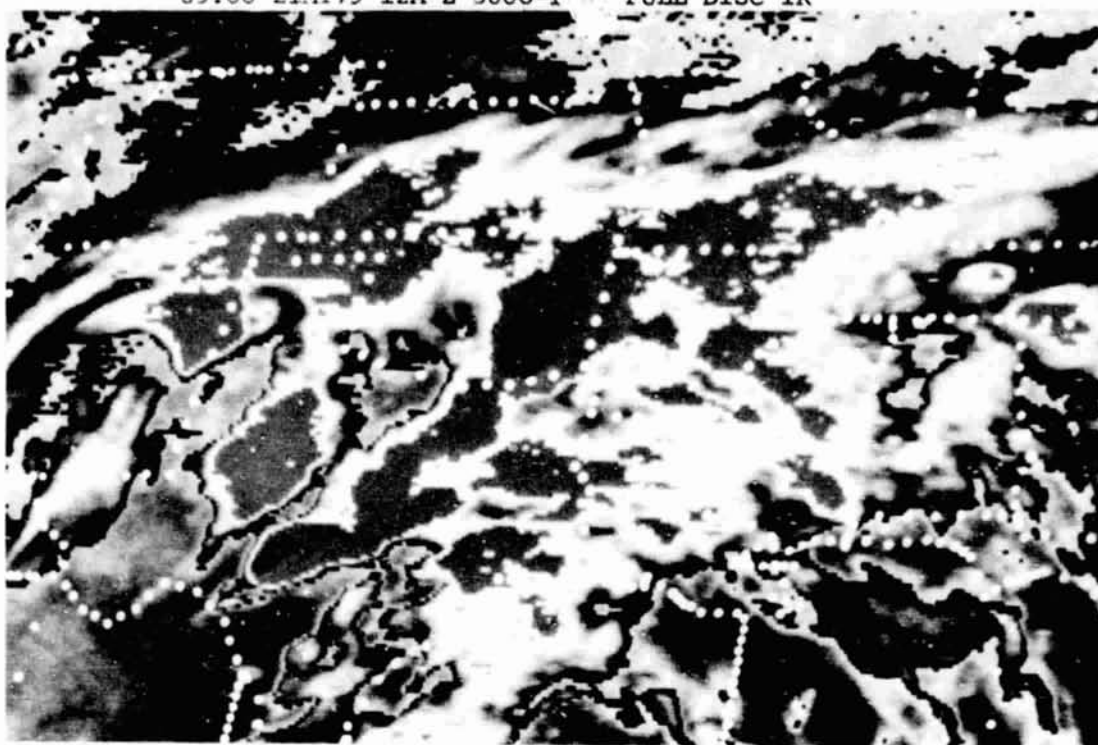


Fig. 44. GOES-East infrared satellite imagery for 0900 GMT
21 May 1979.

10:00 21MY79 12A-Z 0006-1640 FULL DISC IR



Fig. 45. GOES-East infrared satellite imagery for 1000 GMT
21 May 1979.

11:00 21MY79 12A-Z 0006-1640 FULL DISC IR

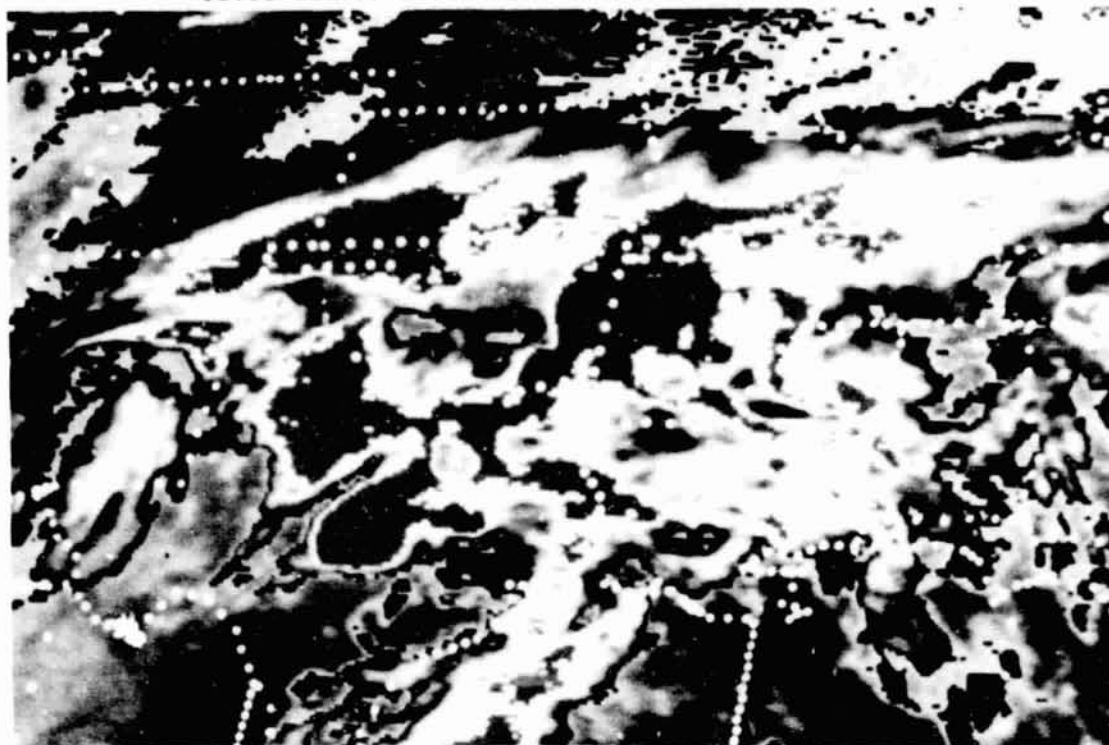


Fig. 46. GOES-East infrared satellite imagery for 1100 GMT
21 May 1979.

12:00 21MY79 12A-Z 0006-1640 FULL DISC IR

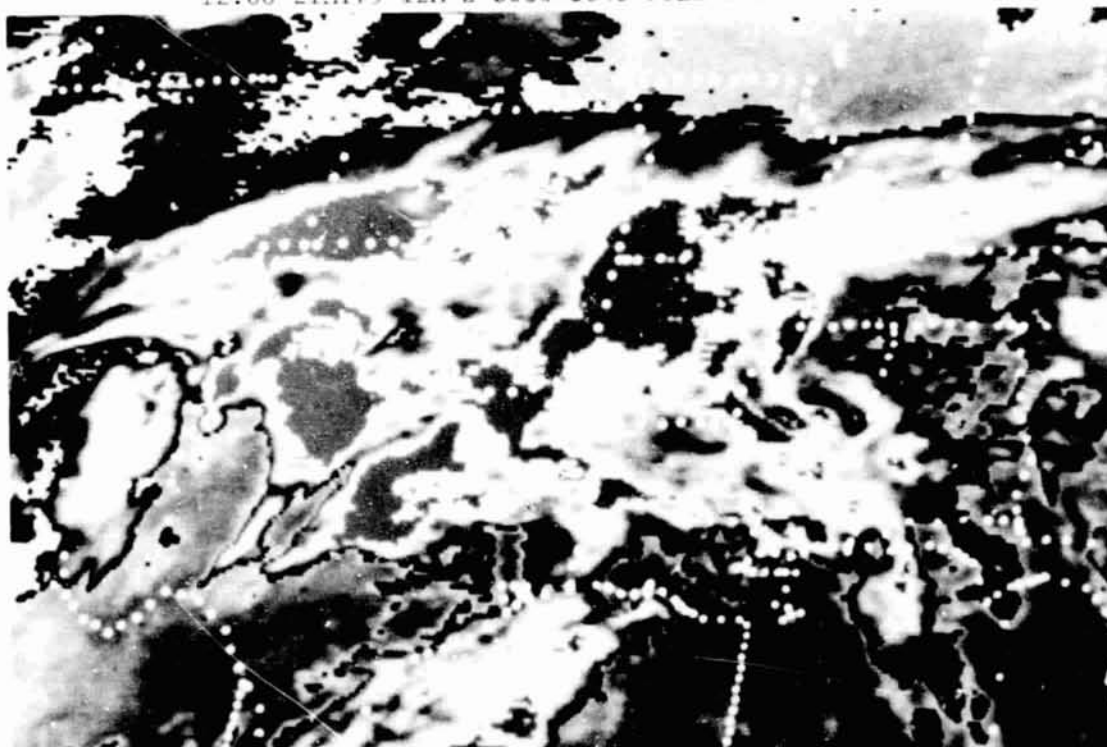


Fig. 47. GOES-East infrared satellite imagery for 1200 GMT
21 May 1979.

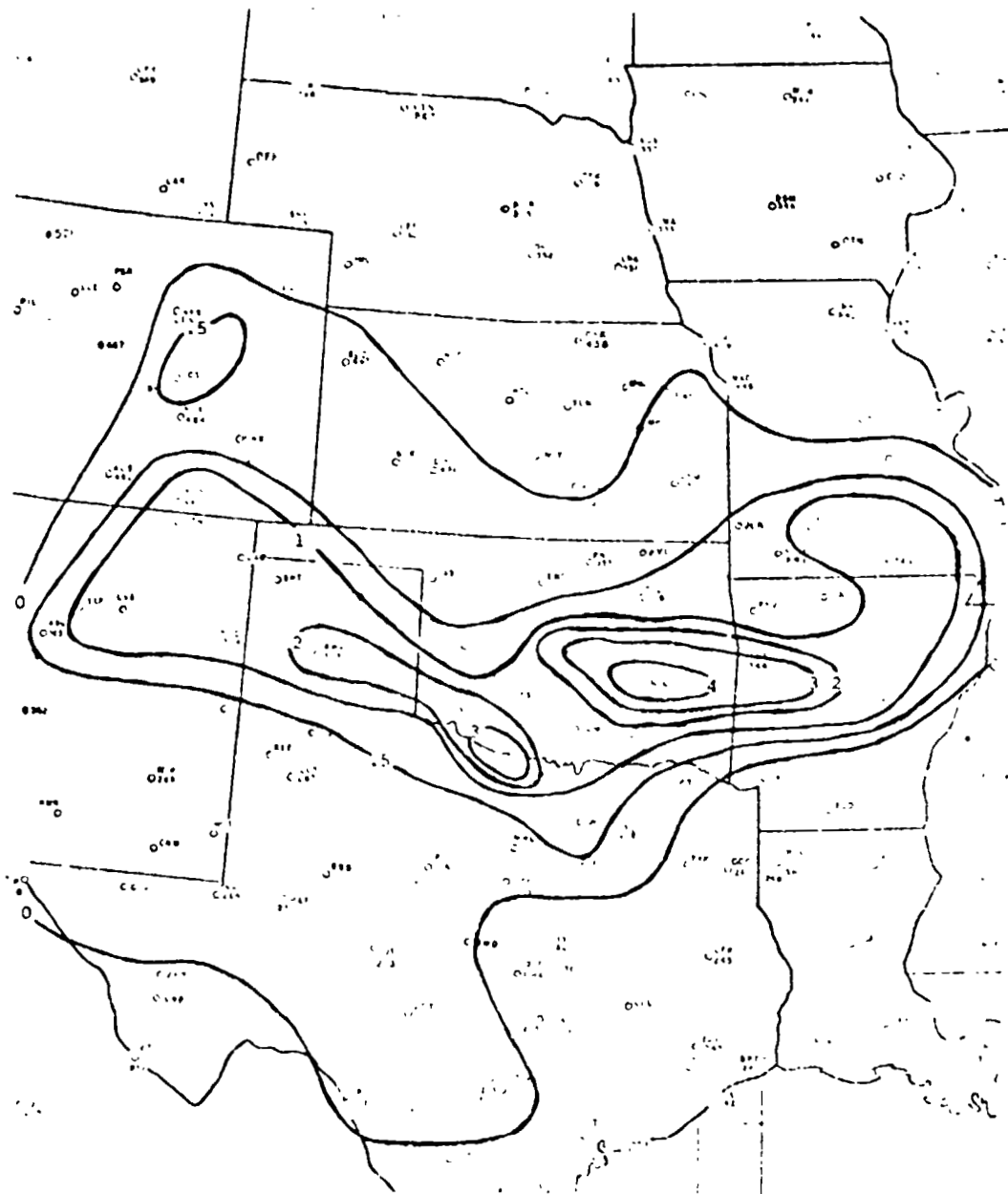


Fig. 48. Total rainfall amounts in inches for the period 1200 GMT
20 May to 1200 GMT 21 May 1979.

TABLE 2. Teletype reports taken from NOAA weather wire and national weather summaries of severe and unusual weather from 1200 GMT 20 May to 1200 GMT 21 May 1979.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
SVR TSTM	FAYETTEVILLE, AR REPORTING INTENSE TSTM	1249
UMN RAREP	TRW++ INCREASING IN INTENSITY OVER NE OKLAHOMA, SE KANSAS, SW MISSOURI, AND NW ARKANSAS. MAX TOPS TO 50,000 FT SE OF MONET, MO. MOVEMENT TO THE ESE AT 30 MPH	1333
SVR TSTM WATCH	WATCH NO. 126 ISSUED FOR N ARKANSAS, EXTREME S CENTRAL MISSOURI, AND E CENTRAL OKLAHOMA FROM 9:15 A.M. UNTIL 3:00 P.M. CDT	1345
1M1 RAREP	TRWXX CELL 25 MI IN DIAMETER AND INCREASING IN INTENSITY JUST ENE OF FT. SMITH, AR. MAX TOP OF 36,000 FT AND MOVING EAST AT 30 MPH	1410
FLASH FLOOD WATCH	ISSUED FOR EXTREME NW ARKANSAS TODAY AND TONIGHT	1415
UMN RAREP	FEW TRW+ OVER EXTREME NE OKLAHOMA, MOST OF MISSOURI, N ARKANSAS, AND SE KANSAS. MAX TOP 47,000 FT 25 MI NE OF FT. SMITH, AR. ACTIVITY MOVING ESE AT 30 MPH	1434
HAIL	3/8 INCH HAIL ENCOUNTERED BY AIRCRAFT W OF EL PASO, TX	1457
SVR TSTM	FT. SMITH, AR EXPERIENCING INTENSE TSTM	1458
UMN RAREP	FEW TRW+ OVER EXTREME E OKLAHOMA, S MISSOURI, AND N AND W ARKANSAS. MAX TOP 49,000 FT 55 MI NE OF FT. SMITH, AR WITH MOVEMENT TO THE ESE AT 30 MPH	1530
1M1 RAREP	TRWX 25 MI IN DIAMETER 68 MI NW OF LITTLE ROCK, AR MOVING EAST AT 30 MPH WITH A TOP OF 43,000 FT. ISOLATED TRW++ OVER NE OKLAHOMA, S MISSOURI, W TENNESSEE, AND N ARKANSAS. MAX TOPS TO 32,000 FT AND MOVING EASTERLY AT 30 MPH	1535
UMN RAREP	FEW TRW DECREASING IN INTENSITY OVER EXTREME S MISSOURI AND N ARKANSAS. MAX TOPS TO 38,000 FT WITH MOVEMENT ESE AT 25 MPH	1630
ICT RAREP	SCATTERED AREA OF INCREASING TSTM ACTIVITY OVER CENTRAL, SOUTHERN, AND SE KANSAS	1630

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
IMI RAREP	WIDELY SCATTERED RAIN WITH EMBEDDED TRW++ COVERING ARKANSAS FROM LITTLE ROCK, AR NORTHWARD INTO CENTRAL MISSOURI	1635
UMN RAREP	AREA OF TRW- DECREASING IN INTENSITY OVER N CENTRAL ARKANSAS WITH TOPS UP TO 28,000 FT	1730
HDO RAREP	TSTMS 15 MI W OF SONORA, TX WITH RAINFALL RATES LESS THAN 1/2 INCH PER HOUR. ACTIVITY MOVING NE AT 20 MPH	1740
HIGH WINDS, HAIL	REEVES COUNTY SHERIFF AT PECOS, TX REPORTED 80 MPH WINDS AND DIME SIZE HAIL	1821
GGG RAREP	NEW AREA OF WIDELY SCATTERED SHOWERS DEVELOPING OVER NE TEXAS AND NEW AREA OF LIGHT RAIN OVER E TEXAS	1832
AMA RAREP	SCATTERED TRWX OVER TEXAS PANHANDLE AREA, EXTREME E AND NE NEW MEXICO, AND EXTREME SW OKLAHOMA. ACTIVITY MOVING NE AT 25 MPH	1835
HDO RAREP	SHOWERS AND TSTMS HAVE DEVELOPED FROM EAGLE PASS TO COTULLA, TX. MOVEMENT IS TO THE NE AT 25 MPH WITH MAX TOPS TO 30,000 FT	1840
SVR TSTM WARNING	IN EFFECT UNTIL 2:30 P.M. CDT FOR REEVES, LOVING, WARD, AND WINKLER COUNTIES IN W TEXAS. AT 1:25 P.M. MIDLAND RADAR INDICATED A SVR TSTM JUST NW OF PECOS, TX AND MOVING NE AT 30 MPH AND ANOTHER JUST W OF MENTONE, TX. THESE STORMS ARE MOVING NE AT 30 MPH	1840
TORNADO WATCH	WATCH NO. 127 ISSUED FOR PARTS OF SW AND CENTRAL OKLAHOMA AND PARTS OF NW AND N CENTRAL TEXAS. THIS WATCH IS IN EFFECT FROM 2:30 P.M. UNTIL 9:00 P.M. CDT	1845
TORNADO WATCH	WATCH NO. 128 IS IN EFFECT FROM 2:45 P.M. UNTIL 9:00 P.M. CDT FOR PARTS OF W TEXAS AND EXTREME SE NEW MEXICO	1900
OKC RAREP	TRWX CELL WITH HAIL LOCATED 45 MI NW OF WICHITA FALLS, TX WITH A TOP OF 58,000 FT. THIS CELL IS MOVING NE AT 18 MPH. AREA OF SCATTERED TRW+ INCREASING IN INTENSITY OVER N TEXAS AND INTO CENTRAL AND W OKLAHOMA. HAIL REPORTED 45 MI SSE OF OKLAHOMA CITY, OK	1930

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
ICT RAREP	AREA OF WIDELY SCATTERED TRW OVER SE KANSAS IS MOVING ESE AT 25 MPH	1930
SVR TSTM WARNING	IN EFFECT UNTIL 4:30 P.M. CDT FOR LOVING, WARD, AND WINKLER COUNTIES IN WEST TEXAS AND LEA COUNTY IN SE NEW MEXICO. MIDLAND RADAR NOTED SVR TSTMS 15 MI E OF PECOS, TX TO 30 MI SW OF HOBBS, NM AND MOVING NE AT 30 MPH	1930
TORNADO WARNING	ISSUED FOR ROARD, HARDEMAN, AND WILBARGER COUNTIES OF TEXAS UNTIL 3:30 P.M. CDT. A POSSIBLE TORNADO IN N FOARD COUNTY. SPOTTERS CONFIRMED THE TORNADO JUST SOUTH OF COPPER BREAKS PARK ON THE PEASE RIVER MOVING NNE AT 30 MPH	1930
GGG RAREP	ISOLATED TRW AND WIDELY SCATTERED SHOWERS OVER AN AREA 75 MI WIDE FROM BOSWELL, OK TO WACO, TX. AREA MOVING NE AT 25 MPH	1933
AMA RAREP	FEW TRWX COVERING THE TEXAS PANHANDLE, SW OKLAHOMA, AND NE NEW MEXICO. ACTIVITY MOVING NE AT 25 MPH WITH TOPS REACHING 50,000 FT IN SW OKLAHOMA	1935
SEP RAREP	AREA OF TSTMS BETWEEN LAWTON, OK AND GUTHRIE, TX. HEAVIEST CELLS BETWEEN CHILDRESS AND WICHITA FALLS, TX. THESE TSTMS ARE MOVING NE AT 20 MPH	1935
HDO RAREP	SHOWERS AND TSTMS FROM EAGLE PASS, TX TO COTULLA, TX TO NW OF ALICE, TX. ANOTHER AREA EXTENDS FROM SAN ANGLEO, TX TO BRADY, TX. RAINFALL RATES ARE LESS THAN 1 INCH PER HOUR. MOVEMENT IS TO THE NE AT 20 MPH	1940
HOOK ECHO	INDICATED 10 MI S OF WICHITA FALLS, TX	1955
SEP RAREP	TRW+ CELLS INCREASING IN INTENSITY 35 MI NW OF WICHITA FALLS, TX. MAX TOPS TO 65,000 FT. TROP LEVEL IS 49,100 FT. CELL MOVEMENT IS NNE AT 18 MPH	2005
OKC RAREP	ISOLATED TRWX CELLS WITH HAIL 50 MI SSE OF OKLAHOMA CITY, OK AND 10 MI S OF FT. SILLS, OK. MAX TOP OF 50,000 FT WITH A TROPOPAUSE LEVEL OF 44,600 FT. CELLS MOVING ENE AT 20 MPH. SCATTERED TRW++ FROM McALESTER, OK TO 20 MI E OF LUBBOCK, TX TO 40 MI WNW OF CLINTON, OK. MAX TOPS TO 57,000 FT WITH MOVEMENT TO THE ENE AT 20 MPH	2030

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
SEP RAREP	TRW+ COVERING AN AREA FROM JUST W OF STEPHENVILLE, TX TO 45 MI WSW OF WICHITA FALLS, TX TO 70 MI NNW OF ABILENE, TX. MAX TOPS TO 45,000 FT WITH MOVEMENT NNE AT 18 MPH	2030
GGG RAREP	WIDELY SCATTERED TRW AND LIGHT RAIN OVER NE TEXAS AND S OKLAHOMA MOVING NE AT 20 MPH	2030
AMA RAREP	TRWX COVERING EXTREME E NEW MEXICO, W AND THE PANHANDLE AREAS OF TEXAS, AND W OKLAHOMA. MAX TOPS TO 40,000 FT OVER W TEXAS. AREA OF TSTMS MOVING NE AT 25 MPH	2035
HDO RADAR	TSTMS 15 MI NW AND N OF BRADY, TX MOVING NE AT 20 MPH	2040
TORNADO	WARNING ISSUED FOR THE NW CORNER OF WICHITA COUNTY, TX UNTIL 4:15 P.M. CDT. WICHITA FALLS RADAR INDICATED A POSSIBLE TORNADO 5 MI W OF ELECTRA, TX MOVING NE AT 30 MPH	2040
SVR TSTM WARNING	WARNING ISSUED FOR GAINES, ANDREWS, DAWSON, AND MARTIN COUNTIES IN TEXAS UNTIL 5:30 P.M. CDT. MIDLAND RADAR INDICATED SVR TSTMS 5 MI S OF ANDREWS, TX TO 10 MI N OF SEMINOLE, TX MOVING NE AT 45 MPH	2050
SVR TSTM WARNING	WARNING ISSUED FOR BRISCO COUNTY, TX UNTIL 5:00 P.M. CDT. AMARILLO RADAR INDICATED A SVR TSTM IN THE S PORTIONS OF BRISCO COUNTY AND MOVING TO THE NE AT 20 MPH	2050
OKC RAREP	FEW TRW++ OVER S AND S CENTRAL OKLAHOMA WITH MAX TOPS TO 55,000 FT. MOVEMENT IS TO THE ENE AT 20 MPH	2130
GGG RAREP	WIDELY SCATTERED TRW OVER NE TEXAS, SE OKLAHOMA, AND INTO SW ARKANSAS. MAX TOPS TO 27,000 FT AND MOVING NE AT 15 MPH	2130
SVR TSTM	INTENSE TSTM AT ALBUQUERQUE, NM	2155
SEP RAREP	TRW++ CELL 25 MI IN DIAMETER 5 MI SE OF LAWTON, OK. TOP IS 36,000 FT AND MOVING NE AT 25 MPH	2205
SVR TSTM WARNING	WARNING ISSUED FOR CHILDRESS COUNTY IN TEXAS UNTIL 6:30 P.M. CDT. AMARILLO RADAR INDICATED SVR TSTMS IN S HALL COUNTY, TX AND MOVING TOWARD THE ENE AT 35 MPH	2210

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
OKC RAREP	NUMEROUS TRW++ COVERING AN AREA 90 MI W OF OKLAHOMA CITY, OK TO 60 MI SE OF AMARILLO, TX TO 45 MI E OF McALESTER, OK. THESE STORMS ARE MOVING TO THE EAST AT 20 MPH. MAX TOPS TO 50,000 FT	2230
HDO RAREP	SCATTERED SHOWERS AND TSTMS OVER CROCKETT, SUTTON, AND VAL VERDE COUNTIES OF SW TEXAS. MOVEMENT IS TO THE NE AT 30 MPH	2230
SEP RAREP	ISOLATED TRWX 20 MI W OF SEYMOUR, TX WITH A TOP OF 40,000 FT. CELL MOVEMENT IS NE AT 25 MPH	2235
IMI RAREP	A NEW LINE OF TRW++ 9 MI WIDE OVER NW ARKANSAS	2235
AMA RAREP	ISOLATED TRWXX 20 MI W OF CHILDRESS, TX. HAIL INDICATED WITH A TOP OF 52,000 FT. MOVEMENT IS EASTERLY AT 40 MPH. AREA OF TRWX INCREASING IN INTENSITY, OVER THE PANHANDLES OF TEXAS AND OKLAHOMA, W OKLAHOMA, W TEXAS, AND EXTREME E NEW MEXICO	2235
SVR TSTM	OKLAHOMA CITY, OK EXPERIENCING EXTREME TSTM REDUCING VISIBILITY TO 1/2 MI. A LITTLE OVER AN INCH OF RAIN IN THE PAST HOUR	2254
HOOK ECHO	AIRCRAFT RADAR INDICATES HOOK ECHO NEAR PAGE, OK	2254
HAIL	EXTREME TSTM WITH 3/4 INCH HAILSTONES AT CHILDRESS, TX. VISIBILITY 1/16 MI. SUSTAINED WINDS OUT OF THE SSW AT 40 MPH WITH GUSTS TO 50 MPH. TSTM MOVING NE	2256
SVR TSTM	McALESTER, OK REPORTING INTENSE TSTM REDUCING VISIBILITY TO 1/4 MI	2257
HAIL	INTENSE TSTM WITH 1/4 INCH HAIL AT MIDLAND, TX	2258
OKC RAREP	AREA OF TRW++ COVERING MOST OF THE STATE OF OKLAHOMA, EXTREME W ARKANSAS, AND N CENTRAL TEXAS. THESE STORMS MOVING EASTERLY AT 18 MPH WITH TOPS TO 50,000 FT	2330
SEP RAREP	NEW TRWX CELLS 15 MI WSW OF WICHITA FALLS, TX AND 30 MI WSW OF ARDMORE, OK MOVING ENE 25 MPH	2330

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
ICT RAREP	AREA OF TRW OVER S KANSAS AND N OKLAHOMA. STORMS MOVING NE AT 20 MPH	2330
HDO RAREP	VERY HEAVY TSTM 12 MI NW OF CORNSTOCK, TX. RAINFALL RATES GREATER THAN 2 INCHES PER HOUR. MOVEMENT IS TO THE NE AT 35 MPH	2330
AMA RAREP	TRWXX CELL 35 MI SSW CHILDRESS, TX WITH HAIL INDICATED. AREA OF TRWX OVER MOST OF WESTERN AND THE PANHANDLE AREAS OF TEXAS, W OKLAHOMA, AND E NEW MEXICO. SYSTEM MOVING TO THE NE AT 25 MPH	2335
lMI RAREP	LINE OF TRWX 12 MI WIDE OVER W CENTRAL ARKANSAS. CELL MOVEMENT TO THE EAST AT 15 MPH. NEW LINE OF TRW+ DEVELOPING 25 MI SSW OF McALESTER, OK TO JACKSON, TN. ACTIVITY MOVING TO THE EAST AT 12 MPH	2335
SEP RAREP	VERY HEAVY TSTM 15 MI SW OF WICHITA FALLS, TX AND 25 MI W OF ARDMORE, OK. MOVEMENT IS TO THE NE AT 25 MPH	2335
TURBULENCE, ICING	AIRCRAFT ENCOUNTERED SVR TURBULENCE AND ICING OVER DALLAS, TX BETWEEN 14,000- 21,000 FT	2340
TORNADO	REPORTED 65 MI NE OF MIDLAND, TX	2346
TORNADO WARNING	WARNING ISSUED FOR HOWARD, MARTIN, AND DAWSON COUNTIES OF TEXAS UNTIL 7:45 P.M. CDT. A TORNADO WAS REPORTED ON THE GROUND BY A WEATHER SPOTTER NEAR THE EXTREME W EDGE OF HOWARD COUNTY. TORNADO WAS MOVING NE AT 30 MPH TOWARD ACKERLY, TX	2350
TURBULENCE, HAIL	AIRCRAFT ENCOUNTERED EXTREME TURBULENCE AND HAIL AT 12,000 FT WSW OF ARDMORE, OK	2350
SVR TSTMS	OVER TWO INCHES OF RAIN FELL AT McALESTER, OK AND OKLAHOMA CITY, OK IN THE PAST THREE HOURS	2358
ICING	AIRCRAFT EXPERIENCED RIME ICING AT 13,000 FT OVER ALBUQUERQUE, NM	2359

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
TURBULENCE	AIRCRAFT REPORTED SVR TURBULENCE AT 17,000 FT OVER DALHART, TX	0005
SEP RAREP	ISOLATED TRWXX CELL INCREASING IN INTENSITY 5 MI SE OF WICHITA FALLS, TX. THIS CELL IS MOVING ENE AT 25 MPH AND HAS A TOP OF 46,000 FT	0005
TORNADO WARNING	WARNING ISSUED FOR ARCHER AND CLAY COUNTIES IN TEXAS UNTIL 8:00 P.M. CDT. A TORNADO WAS INDICATED 2 MI N OF ARCHER CITY, TX AND MOVING TO THE EAST AT 20 MPH	0005
TORNADO	TORNADO TOUCHED DOWN AT STANTON, TEXAS AT 6:33 P.M. CDT. 12 HOMES AND A TRAILER DESTROYED AND 1 PERSON MISSING	0020
SVR TSTM	WARNING ISSUED FOR S HALF VAL VERDE COUNTY, TEXAS UNTIL 8:30 P.M. CDT. A SVR TSTM WAS INDICATED BY DEL RIO RADAR 10 MI NW OF COMSTOCK, TX MOVING E AT 25 MPH. MARBLE SIZED HAIL REPORTED WITH 50 MPH WINDS	0020
ICT RAREP	TRW+ COVERING AN AREA 145 MI WIDE FROM 25 MI E OF FAYETTEVILLE, AR TO CLINTON, OK. MAX TOPS TO 33,000 FT WITH CELLS MOVING NE AT 20 MPH	0030
HDO RAREP	SVR TSTM PRODUCING MARBLE SIZED HAIL IN CENTRAL VAL VERDE COUNTY 10 MI N OF COMSTOCK, TX. THIS STORM IS MOVING EAST AT 25 MPH AND HAS A TOP OF 54,000 FT. RAINFALL RATES IN EXCESS OF 2 INCHES PER HOUR	0030
AMA RAREP	AREA OF TRW++ OVER THE PANHANDLE AREAS OF TEXAS AND OKLAHOMA, W TEXAS, W OKLAHOMA, AND EXTREME E NEW MEXICO. CELL MOVEMENT IS TO THE NE AT 25 MPH. MAX TOPS TO 45,000 FT	0035
SEP RAREP	VERY HEAVY TSTM 20 MI S OF WICHITA FALLS, TX MOVING NE AT 25 MPH	0035
SVR TSTM WARNING	WARNING ISSUED FOR CRANE, UPTON, MIDLAND, GLASSCOCK, AND HOWARD COUNTIES IN TEXAS UNTIL 9:30 P.M. CDT. MIDLAND RADAR INDICATED A SVR TSTM SW OF CRANE, TX, MOVING NE AT 30 MPH. WEATHER SPOTTERS REPORTED 1/4-1/2 INCH HAIL SW OF CRANE	0050

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
SVR TSTM WARNING	ISSUED UNTIL 10:00 P.M. CDT FOR EDWARDS COUNTY TX. RADAR INDICATED A SVR TSTM WITH HAIL NEAR LOMA ALTA, TX MOVING E AT 9 MPH	0055
SEP RAREP	ISOLATED TRWZ 20 MI NNE OF WICHITA FALLS, TX. CELL MOVING 25 MPH TO THE NE	0101
FLASH FLOOD	ISSUED FOR VAL VERDE COUNTY, TX. FLOODING POSSIBLE ON THE DEVILS AND DRY DEVILS RIVERS OF TEXAS	0115
ICT RAREP	TRW++ INCREASING IN INTENSITY OVER S KANSAS AND N OKLAHOMA MOVING ENE AT 10 MPH	0130
SVR TSTM	WATCH NO. 129 ISSUED FOR PORTIONS OF WEST TEXAS FROM 9:00 P.M. TO 1:00 A.M. CDT	0130
HDO RAREP	SVR TSTM WITH HAIL AND HEAVY RAINS NEAR THE COUNTY LINES OF VAL VERDE AND EDWARDS, TX. MAX TOPS TO 52,000 FT	0130
OKC RAREP	NUMEROUS TRW++ 220 MI WIDE FROM 35 MI E OF FORT SMITH, AR TO 45 MI ESE OF AMARILLO, TX. CELLS MOVING EAST AT 25 MPH. MAX TOPS TO 50,000 FT	0133
AMA RAREP	ISOLATED TRWX 30 MI NE OF CLOVIS, NM, MOVING NE AT 25 MPH. AREA OF TRW++ IN THE PANHANDLE AREAS OF TEXAS AND OKLAHOMA AND W TEXAS. ACTIVITY MOVING NE AT 25 MPH	0135
SEP RAREP	VERY HEAVY TSTMS 20 MI E OF GUTHRIE, TX AND 30 MI E OF WICHITA FALLS, TX. MOVEMENT IS NE AT 25 MPH	0135
HAIL	HAIL INDICATED 35 MI NNE OF NORTH LITTLE ROCK, AR	0135
HAIL	1/4 INCH HAILSTONES REPORTED AT MIDLAND, TX	0144
SVR TSTM WARNING	EXTENDED FOR VAL VERDE COUNTY, TX UNTIL 10:00 P.M. CDT	0200
FLASH FLOOD WATCH	ISSUED FOR N CENTRAL TEXAS, N OF A HASKELL, TX TO JACKSBORO, TX LINE FOR TONIGHT AND MONDAY MORNING	0200

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
SEP RAREP	ISOLATED TRWX 60 MI WSW OF WICHITA FALLS, TX. MOVEMENT IS TO THE NE AT 25 MPH. MAX TOPS OF 46,000 FT	0203
ICT RAREP	TRW+ OVER SW KANSAS AND N OKLAHOMA	0230
GGG RAREP	ISOLATED TRW++ INCREASING IN INTENSITY 35 MI N OF PARIS, TX. MOVEMENT ENE AT 20 MPH	0230
HDO RAREP	SVR TSTMS 12 MI W OF GARNER STATE PARK AND 15 MI NW OF COMSTOCK, TX. HAIL AND HEAVY RAIN ASSOCIATED WITH THESE CELLS. MOVEMENT E AT 25 MPH	0230
AMA RAREP	TRWX CELLS 38 MI W AMARILLO AND 62 MI WSW OF AMARILLO. CELLS MOVING ENE AT 25 MPH. TRW+ OVER W OKLAHOMA, W TEXAS, AND THE PANHANDLE AREAS OF TEXAS AND OKLAHOMA. MOVEMENT IS ENE AT 25 MPH	0235
SEP RAREP	VERY HEAVY TSTMS N OF GAINSVILLE, TX ALONG RED RIVER TO SWEETWATER AND CHILDRESS, TX. MOVEMENT IS TO THE NE AT 20 MPH	0235
SVR TSTM WARNING	WARNING ISSUED FOR MARTIN, HOWARD, AND BORDEN COUNTIES OF TEXAS UNTIL 10:30 P.M. CDT. MIDLAND RADAR INDICATED SVR TSTMS FROM 10 MI NW OF STANTON, TX TO 15 MI SE OF ACKERLY, TX MOVING NE AT 30 MPH	0245
TORNADO WARNING	ISSUED UNTIL 10:45 P.M. CDT FOR E COCHRAN AND HOCKLEY COUNTIES OF TEXAS. RADAR INDICATED A POSSIBLE TORNADO IN SE COCHRAN COUNTY ABOUT 10 MI SSW OF WHITEFACE, TX MOVING NNE AT 25 MPH	0245
SVR TSTM	OVER 3/4 OF AN INCH OF RAIN FELL AT FT. SMITH, AR IN THE PAST HOUR	0252
SVR TSTM WARNING	WARNING ISSUED FOR EDWARDS, REAL, AND UVALDE COUNTIES IN TEXAS UNTIL 11:00 P.M. CDT. RADAR INDICATED A SVR TSTM NEAR THE CAMP WOOD-BARKSDALE AREA MOVING TOWARDS THE ESE AT 25 MPH	0300

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
SVR TSTM	INTENSE TSTM REPORTED AT WICHITA FALLS, TX	0326
OKC RAREP	TRWX AND TRW+ COVERING MOST OF CENTRAL AND S THIRDS OF OKLAHOMA, W TEXAS AND EXTREME E ARKANSAS. TOPS TO 53,000 FT. MOVEMENT IS TO THE EAST AT 25 MPH	0330
HDO RAREP	SVR TSTMS W OF GARNER STATE PARK AND OVER THE DEVILS RIVER SE OF JUNO, TX. SCATTERED TSTMS OVER THE SW PART OF TEXAS. TSTMS MOVING E AT 25 MPH	0330
GGG RAREP	SCATTERED TRW++ OVER SE OKLAHOMA. MOVEMENT TO THE EAST AT 15 MPH	0330
ICT RAREP	TRW DECREASING IN INTENSITY OVER SE KANSAS AND MOST OF OKLAHOMA. ACTIVITY MOVING EAST AT 6 MPH	0330
AMA RAREP	ISOLATED TRWXX 45 MI SW OF AMARILLO, TX. MAX TOP OF 40,000 AND MOVING ENE AT 25 MPH. ISOLATED TRWX 35 MI WNW OF CLOVIS, NM WITH MAX TOP OF 42,000 FT. TRW+ CONTINUE OVER W TEXAS AND BOTH PANHANDLE AREAS. MOVEMENT IS ENE AT 25 MPH	0335
IMI RAREP	TRWXXA CELLS 56 MI ENE AND 39 MI WNW OF LITTLE ROCK, AR. MOVEMENT IS ESE AT 20 MPH AND EAST AT 25 MPH RESPECTIVELY. AREA OF SCATTERED TRWX COVERING NORTHERN AND PARTS OF CENTRAL ARKANSAS, PARTS OF W CENTRAL TENNESSEE AND E OKLAHOMA. ACTIVITY MOVING EAST AT 20 MPH	0335
SVR TSTM	1.61 INCHES OF RAIN HAS FALLEN IN THE PAST HOUR AT WICHITA FALLS, TX	0356
SVR TSTM	HEAVY TSTM AT FT. SMITH, AR	0357
SEP RAREP	ISOLATED TRWX CELL 12 MI ENE OF WICHITA FALLS, TX MOVING ENE AT 25 MPH. MAX TOPS TO 45,000 FT	0401
SVR TSTM WARNING	WARNING ISSUED FOR VAL VERDE COUNTY UNTIL 12:30 CDT. RADAR INDICATED A LINE OF VERY HEAVY TO SVR TSTMS DEVELOPING NEAR DRYDEN, TX. MOVEMENT IS TO THE EAST AT 20 MPH	0415

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
OKC RAREP	NUMEROUS TRW++ DECREASING IN INTENSITY OVER MOST OF OKLAHOMA, W ARKANSAS, AND W PORTIONS OF NE CENTRAL TEXAS. MOVEMENT WAS EAST AT 25 MPH WITH MAX TOP OF 30,000 FT	0430
ICT RAREP	TRW COVERING CENTRAL AND S KANSAS AND EXTREME N OKLAHOMA	0430
MAF RAREP	A FEW HEAVY TSTMS NEAR WINK, TX AND ONE NEAR SNYDER, TX. MOVEMENT IS TO THE NE AT 20 MPH	0430
SEP RAREP	SCATTERED TRWX BETWEEN SEYMOUR AND WICHITA FALLS, TX. ANOTHER HEAVY TSTM WAS LOCATED NEAR SHERMAN, OK. MOVEMENT TO THE ENE AT 20 MPH	0430
GGG RAREP	NUMEROUS TRW++ OVER NE TEXAS, SE OKLAHOMA, AND SW ARKANSAS. MOVEMENT TO THE ENE AT 13 MPH	0432
AMA RAREP	ISOLATED TRWXX CELL 25 MI SW OF AMARILLO, TX MOVING ENE AT 25 MPH. ISOLATED TRWXX 22 MI WSW OF AMARILLO MOVING ENE AT 25 MPH. ISOLATED TRWX 30 MI NW OF CLOVIS, NM. TRW+ COVERING W OKLAHOMA, AND THE PANHANDLES OF TEXAS AND OKLAHOMA AND EXTREME E NEW MEXICO. MOVEMENT ENE AT 25 MPH	0435
IMI RAREP	SCATTERED TRWX DECREASING IN INTENSITY OVER THE N HALF OF ARKANSAS, S MISSOURI, AND NE OKLAHOMA. MAX TOPS TO 40,000 FT WITH MOVEMENT ESE AT 25 MPH	0435
AMA RAREP	ISOLATED TRWX 20 MI SSW OF AMARILLO, TX MOVING ENE AT 25 MPH. TRW++ AND TRW OVER TEXAS PANHANDLE, W OKLAHOMA, AND NE NEW MEXICO. MOVEMENT TO THE NE AT 25 MPH WITH MAX TOPS TO 40,000 FT	0530
ICT RAREP	NUMEROUS TRW OVER S KANSAS AND N OKLAHOMA	0530
MAF RAREP	VERY HEAVY TSTM 18 MI NW OF MIDLAND, TX	
HDO RAREP	VERY HEAVY TSTMS MOST OF EDWARDS, SE SUTTON AND SW KIMBLE COUNTIES IN TEXAS. RAINFALL RATES GREATER THAN 2 INCHES PER HOUR. MOVEMENT EAST AT 20 MPH	0530

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
1M1 RAREP	WIDELY SCATTERED TRW++ DECREASING IN INTENSITY OVER N CENTRAL AND W ARKANSAS. MAX TOPS TO 31,000 FT AND MOVING EASTERLY AT 30 MPH	0535
OKC RAREP	LINE OF TRW++ 15 MI WIDE FROM 15 MI W OF OKLAHOMA CITY, OK TO 30 MI WNW OF ARDMORE, OK TO 45 MI SSE OF WICHITA FALLS, TX MOVING EAST AT 25 MPH. MAX TOPS TO 46,000 FT	0535
SEP RAREP	VERY HEAVY TSTMS 25 MI E OF WICHITA FALLS, TX AND 35 MI S OF WICHITA FALLS. MOVEMENT NE AT 20 MPH	0535
GGG RAREP	SCATTERED TRW+ DECREASING IN INTENSITY COVERING NE TEXAS, SE OKLAHOMA, AND SW ARKANSAS. MOVEMENT ENE AT 25 MPH	0618
SEP RAREP	HEAVY TO VERY HEAVY TSTMS BETWEEN MINERAL WELLS, TX AND GAINSVILLE, TX. SCATTERED SHOWERS AND TSTMS COVER MOST OF N CENTRAL TEXAS. MOVEMENT IS NE AT 25 MPH	0635
1M1 RAREP	ISOLATED TRW++ CELLS 53 MI SW OF MEMPHIS, TN AND 30 MI WSW OF HOT SPRINGS, AR. WIDELY SCATTERED TRW+ OVER W CENTRAL TENNESSEE AND E CENTRAL ARKANSAS. MAX TOPS TO 30,000 FT WITH MOVEMENT TO THE EAST AT 25 MPH	0635
UMN RAREP	AREA TRW OVER SW MISSOURI, NW ARKANSAS, AND NE OKLAHOMA. MOVEMENT IS TO THE ENE AT 15 MPH	0635
SJT RAREP	HEAVY TSTM 25 MI SW OF BIG LAKE IN REAGAN COUNTY, TX. MOVEMENT IS NE AT 30 MPH	0730
AMA RAREP	ISOLATED TRWXX CELL 25 MI NNE CLOVIS, NM. MOVEMENT IS TO THE EAST AT 12 MPH WITH A MAX TOP OF 40,000 FT. NUMEROUS TRW++ COVERING N TEXAS PANHANDLE MOVING EAST AT 15 MPH. TSTMS EXTREME W OKLAHOMA, NE NEW MEXICO, AND ALL OF THE TEXAS PANHANDLE. MOVEMENT IS ENE AT 25 MPH	0730
ICT RAREP	TRW COVERING S CENTRAL KANSAS AND N CENTRAL OKLAHOMA MOVING ENE AT 12 MPH	0730

TABLE 2. CONTINUED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
OKC RAREP	LINE OF TRW+ FROM 5 MI NW OF FT. WORTH, TX TO 25 MI NNW SHERMAN, TX TO 10 MI W OF OKLAHOMA CITY, OK. MOVEMENT IS TO THE EAST AT 30 MPH WITH TOPS TO 44,000 FT	0735
SEP RAREP	VERY HEAVY TSTMS FROM SHERMAN, TX TO N OF MINERAL WELLS, TX	0740
FLASH FLOOD WATCH	ISSUED FOR S HALF OF OKLAHOMA	0745
FUNNEL	AT 2:15 A.M. CDT THE PUBLIC REPORTED A POSSIBLE FUNNEL CLOUD JUST NW OF CLOVIS, NM. VERY HEAVY TSTMS 12 MI N AND 10 MI SW OF CLOVIS, NM MOVING SLOWLY EAST	0750
AUS RAREP	MODERATE AND HEAVY TSTMS NEAR FREDERICKSBURG, TX. MOVEMENT IS EAST AT 30 MPH	0810
ICT RAREP	AREA OF TRW N CENTRAL OKLAHOMA AND SE CENTRAL KANSAS MOVING NE AT 18 MPH	0830
MAF RAREP	A LINE OF HEAVY TSTMS FROM STERLING CITY, TX TO 15 MI W OF OZONA, TX MOVING NE AT 30 MPH. SMALL HAIL WAS INDICATED BY RADAR IN THIS AREA	0830
GGG RAREP	FEW TRW++ INCREASING IN INTENSITY OVER NE TEXAS, NW LOUISIANA, SW ARKANSAS, AND SE OKLAHOMA. MOVEMENT TO THE ENE AT 30 MPH. MAX TOPS TO 32,000 FT	0833
HDO RAREP	FEW VERY HEAVY TSTMS 30 MI SW AND NW OF ROCK SPRINGS, TX AND 15 MI E OF KERRVILLE, TX. MAX TOPS TO 38,000 FT 25 MI NW OF ROCK SPRING, TX	0835
OKC RAREP	ISOLATED TRW+ CELL 30 MI ENE OF SHERMAN, TX MOVING EAST AT 30 MPH WITH A TOP OF 39,000 FT. WIDELY SCATTERED TRW OVER N AND CENTRAL OKLAHOMA MOVING EAST AT 30 MPH	0835
AMA RAREP	NUMEROUS TRW++ DECREASING IN INTENSITY ON LEADING EDGE OF LESSER INTENSITY STORM AREA. AREA COVERS NE NEW MEXICO, W PORTION OF TEXAS PANHANDLE, OKLAHOMA PANHANDLE, SW KANSAS, AND SE COLORADO. MOVEMENT IS ENE AT 18 MPH	0835
SEP RAREP	HEAVY TO VERY HEAVY TSTMS FROM MINERAL WELLS, TX TO JUST E OF DENTON, TX. MOVEMENT IS TO THE EAST AT 25 MPH	0840

TABLE 2. CONCLUDED.

<u>EVENT</u>	<u>LOCATION</u>	<u>TIME (GMT)</u>
FLASH FLOOD WATCH	ISSUED FOR EASTERN TWO-THIRDS OF N TEXAS THROUGH NOON TODAY	0900
FLASH FLOOD WARNING	IN EFFECT UNTIL 7:00 A.M. CDT FOR POTTER, RANDALL, AND DEAF SMITH COUNTIES IN TEXAS	0915
AMA RAREP	NUMEROUS TRW++ OVER NE NEW MEXICO, OKLAHOMA AND TEXAS PANHANDLE AREAS. MAX TOPS TO 30,000 FT WITH MOVEMENT TO THE EAST AT 20 MPH	0930
ICT RAREP	TRW COVERING S KANSAS AND EXTREME N OKLAHOMA MOVING NE AT 18 MPH	0930
SEP RAREP	WIDELY SCATTERED TRW++ N CENTRAL TEXAS. ACTIVITY MOVING EAST AT 25 MPH. MAX TOPS TO 33,000 FT	0933
GGG RAREP	TRW++ COVERING NE TEXAS, N PORTIONS OF SE TEXAS, SE OKLAHOMA, SW ARKANSAS, AND NW LOUISIANA. MOVEMENT IS ENE AT 30 MPH	0934
OKC RAREP	SCATTERED TRW OVER CENTRAL AND N OKLAHOMA	0935
1M1 RAREP	WIDELY SCATTERED TRW++ COVERING MOST OF ARKANSAS. MOVEMENT IS TO THE EAST AT 30 MPH WITH TOPS TO 30,000 FT	0935
GGG RAREP	VERY HEAVY TSTM NE OF COMMERCE, TX MOVING NE AT 25 MPH	1030

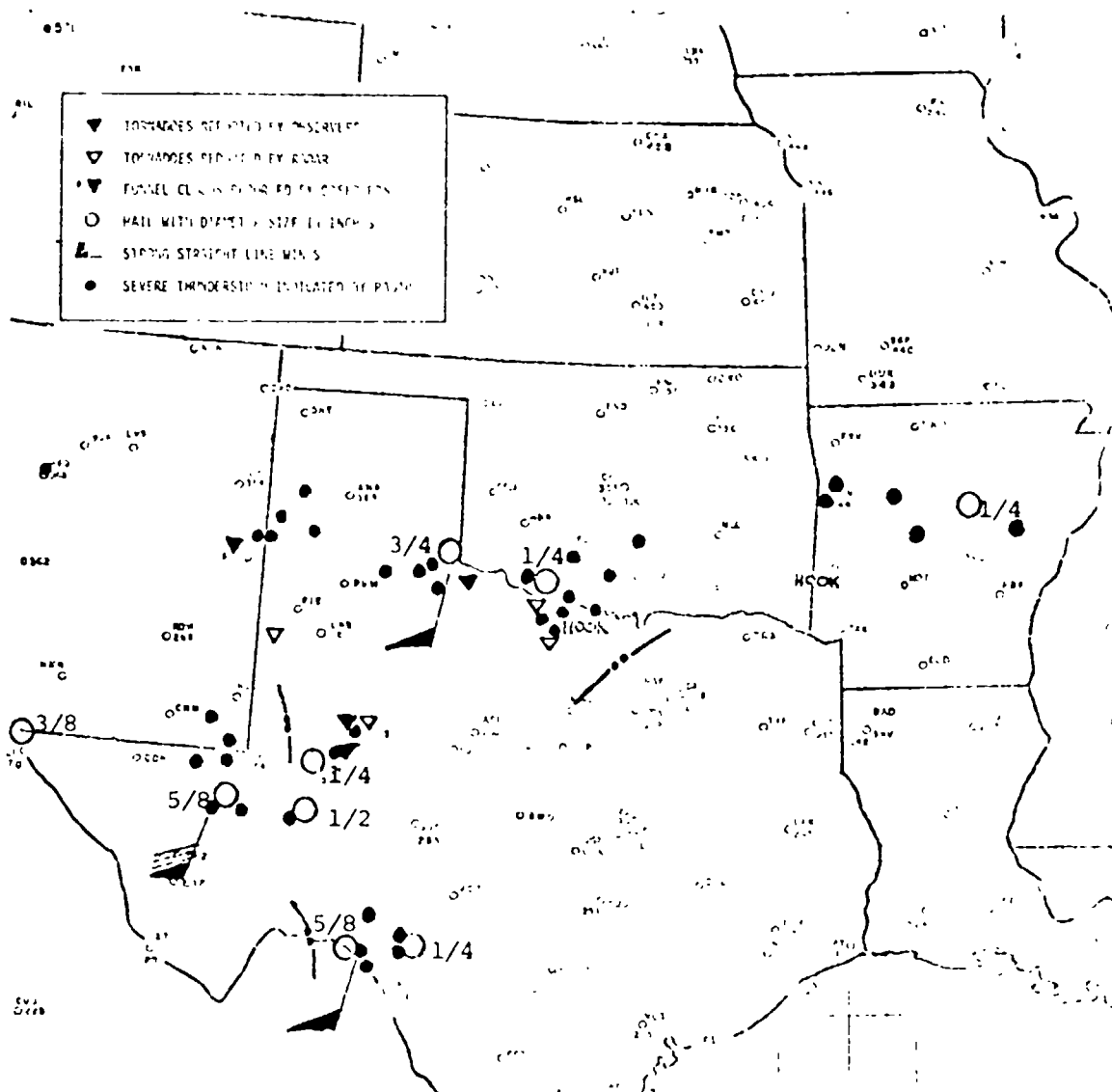


Fig. 49. Severe weather reports between 1200 GMT 20 May and 1200 GMT 21 May 1979 in the AVE-SESAME V area.

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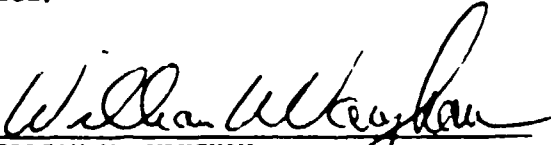
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APPROVAL

A PRELIMINARY LOOK AT AVE-SESAME V CONDUCTED
ON 20-21 MAY 1979

By Michael J. July and Robert E. Turner

The information in this report has been reviewed for technical content. Review of any information concerning Department of Defense or nuclear energy activities or programs has been made by the MSFC Security Classification Officer. This report, in its entirety, has been determined to be unclassified.


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