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DISASTER SURVEY REPORT
TORNADO, MAY 6, 1975
OMAHA, NEBRASKA

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G. Omaha World-Herald Photo of Tornado.

Distribution:

Director, NWS (W)
Central Region Headquarters (WFC)
Director, NSSFC, Kansas City, MO
NWS (W117) Emergency Warning Branch
WSFO, Omaha, Nebraska

J. S. Smith
RSSM CRH (WFC1x2)

I. Description of Event

The most destructive tornado in the history of the United States occurred in Omaha Tuesday afternoon from 4:29 p.m. until 4:58 p.m., May 6, 1975. It moved from south to north across the city and almost entirely along the main north-south artery, 72nd street. The tornado path shows continuous property damage for a distance of eight miles. The width varied from two blocks to six blocks. Damage extended over a 2,000 block area and included the following: 108 business firms destroyed or heavily damaged; one school destroyed, six heavily damaged; one branch post office destroyed; 287 homes destroyed, 650 heavily damaged; 787 moderately damaged; and 53 separate apartment buildings damaged. See Attachment D for the tornado's path.

Current estimates of property damage from the Governor's Office range from 150 million to 200 million dollars. In Governor Exon's federal assistance request, he states that this disaster is Nebraska's most expensive disaster of all time. If these estimates are accurate, this will be the most expensive tornado disaster on record.

Three deaths and 141 injuries have been attributed directly to the tornado. Twenty-five persons were seriously injured and, as of May 8, 1975, four persons continued on the critical list.

II. Summary of Warning Services

A. Watches

Tornado Watch (#182) was issued by NSSFC for the eastern portion of Nebraska at 12:37 p.m. CDT. It was valid for the period from 2:00 p.m. until 8:00 p.m. The first confirmed touchdown was recorded at 4:29 p.m. just south of 132nd and Q Streets. This is three hours and 52 minutes after the watch issuance time.

Attachment B includes a copy of the watch and a map depicting the watch area.

B. Warnings

The first severe thunderstorm warning Tuesday afternoon for Douglas County, which includes Omaha, was issued at 2:05 p.m. on the Nebraska NOAA Weather Wire. All warnings and reports were transmitted on NOAA Weather Wire. A second warning was issued at 3:15 p.m. for the period through 4:30 p.m. This warning has a lead time of one hour and 14 minutes.

The first tornado warning, using a pre-cut tape, was issued at 4:14 p.m. The warning was based on reports of funnel clouds and radar indications. One minute later, again using a pre-cut tape, the warning was issued for an extended 3-county area near the tornado, including Douglas County. The tornado touched down 15 minutes later. Firemen inside the first demolished homes said the clocks were stopped at 4:35 p.m. indicating a 21-minute lead time.

A number of calls were made to WSFO Omaha by Grand Island and Des Moines radar operators to give information prior to the occurrence of the tornado.

Attachment E includes a chronological list of 50 transmissions. The list includes seven tornado warnings and 11 severe thunderstorm warnings. From 4:09 p.m. until 5:09 p.m., 18 severe weather transmissions were disseminated on NWWS alone.

III. Preparedness Actions

It is very clear that all organizations in Omaha's severe weather warning system performed exceptionally well. The system is composed of six organizations and the news media. They are: City and County Civil Defense; Radio Emergency Associated Citizens Teams (REACT); Police Department; Sheriff's Department; WSFO Omaha and the public news media.

The MIC and seven staff members worked during the severe weather period. Each man was assigned primary and secondary duties. It is apparent from the excellent warning actions that the WSFO staff was well prepared and coordinated.

WSFO Omaha also trains and conducts seminars for all members of the warning system. There is no doubt that this preparedness action saved many lives. Attachment F is only a part of the preparedness actions taken this year.

IV. Public Dissemination

The principal dissemination channel for WSFO Omaha is NWWS. All public news media and the Police and Sheriff's Departments are subscribers to NWWS. The Police Department is the newest member to NWWS being connected to the system five days before the tornado.

Contact with the local Civil Defense is by NAWAS and through the REACT organization. The REACT organization is a group of volunteer spotters who use the citizen band radio frequencies. It is organized by the local Civil Defense and trained by WSFO Omaha.

The warnings are also disseminated by an excellent network of sirens. The sirens are sounded by the police communications center when tornado confirmation has been established. They are not sounded on the basis of NWS warnings.

The effectiveness of the warning disseminations has to be judged as outstanding. There were no malfunctions or slip-ups. Severe thunderstorm warnings were issued over an hour prior to the tornado and the tornado

warning was issued 15 minutes prior to the event. Sirens were sounded just before the tornado moved into the city and the police and sheriff's patrol cars also sounded their sirens. Every person contacted in the damaged area, from south to north, heard the sirens and the warnings. No one was surprised by the tornado. Apparently, the citizenry stayed alert and took protective measures.

The effectiveness of the warnings can also be judged from these two quotes from the Omaha World-Herald. From the lead paragraph: "Early warnings saved lives in Omaha Tuesday," and, "Officials interviewed considered it a miracle that more lives were not lost."

V. User Response and Service Benefits

Comments by the news media and state and local officials have all been of praise. To our knowledge, there has not been a single adverse comment.

Although there was a clear potential for several hundred deaths, only three occurred. Civil Defense officials estimate that 58,000 persons were directly in the tornado's 8-mile path. The saving of lives can only be due to an informed public supplied with adequate warnings. In contrast, Omaha's 1913 tornado with a similar path, caused 94 deaths.

VI. Recommendations

1. It is recommended that consideration be given to supplying WSFO Omaha with a radio to monitor the police frequencies. The communication center for all severe weather reports is located in police headquarters. These reports are monitored by all the news media and they frequently ask the WSFO questions about reports that the police have not relayed to the WSFO. These reports are relayed to WSFO by phone. This monitor could resolve a potentially embarrassing situation, and will greatly improve the WSFO warning capability.

(Action by: CRH)

2. It is also recommended that a "PA" system be installed between the Radar Room and the adjacent working rooms, with microphones in the Radar and Forecast Rooms. This communication method will save time and prevent personnel from colliding in the halls and doorways.

(Action by: CRH)

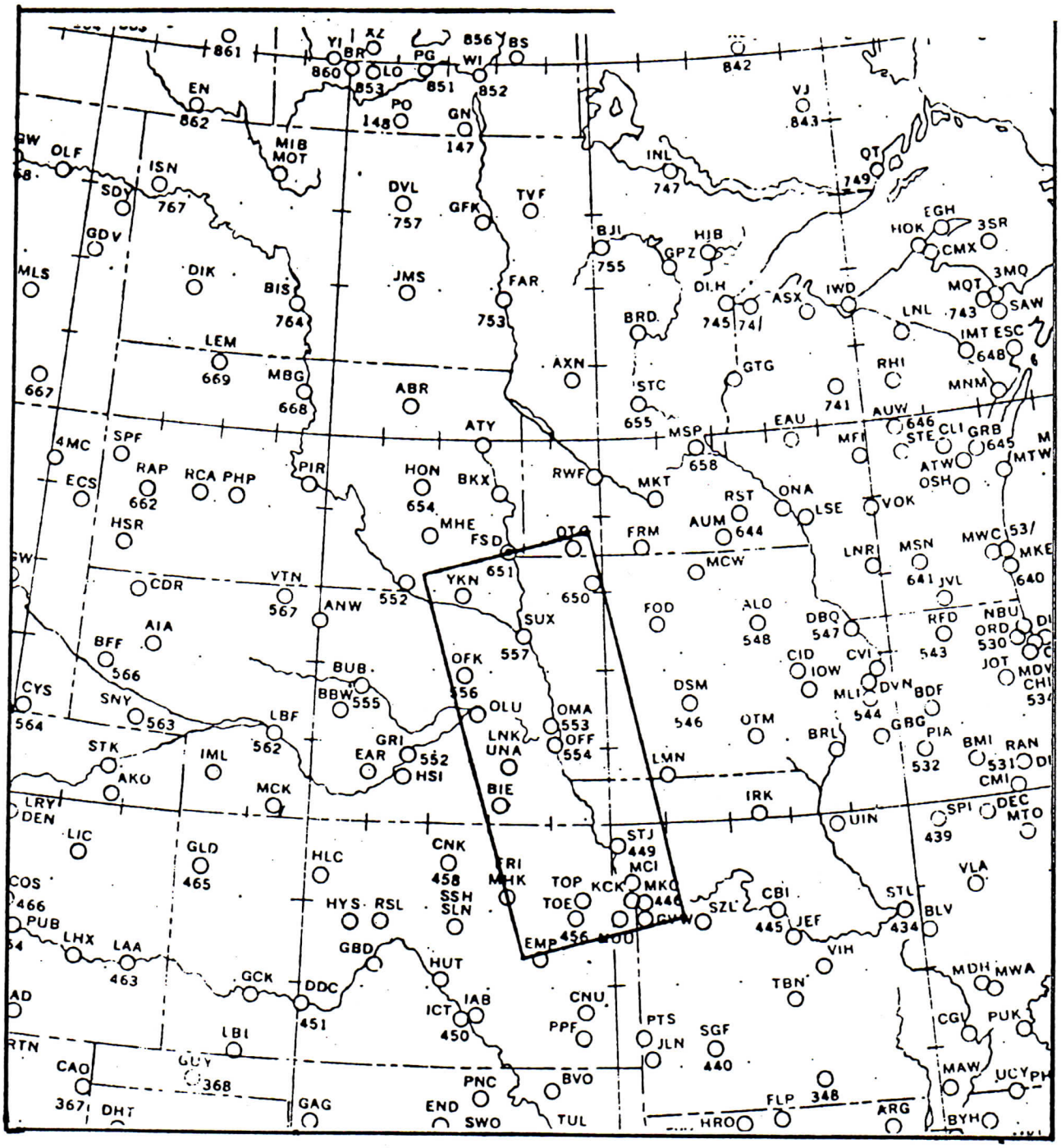
3. Commendations are recommended for the news media and all six members of the severe weather warning system, including WSFO Omaha.

A special commendation should be awarded to Patrolman David Campbell. Patrolman Campbell spotted the tornado at 72nd and I-80 and began to report to headquarters what he saw and the direction the tornado was moving. During his six-mile trip with the tornado, sometimes as close as 50 to 100 yards away, debris began pelting his patrol car. There

was so much debris flying in the air that it smashed the patrol car windows, ripped off the warning lights and the "PA" system, and badly dented the car. At one point, Patrolman Campbell thought he was electrocuted. "Wires were swirling about and all at once everything lit up blue for a hundred feet around." Through all of this, he still managed to continue to report the tornado's direction of movement and location.

(Action by: CRH and WSFO Omaha)

ATTACHMENT B
TORNADO WATCH NUMBER 182
ISSUED 12:37 PM CDT MAY 6, 1975,
VALID 2:00 PM CDT TO 8:00 PM CDT.



MAY 6 17 46 '75
DEPT. OF COMMERCE
WEATHER BUREAU

NNNN↓↓A
ZCZC WBC124
WWUS9 KMKC 061737
MKC WW 061737

ZZZZZ

MKC 061737

BULLETIN
BROADCASTERS PLEASE REPEAT THIS BULLETIN FREQUENTLY

TORNADO WATCH NUMBER 182
ISSUED 12.37 PM CDT TUESDAY MAY 6 1975

A...THE NATIONAL SEVERE STORMS FORECAST CENTER SAYS THE POSSIBILITY OF TORNADOES WILL EXIST FOR PORTIONS OF EASTERN NEBRASKA...NORTHEAST KANSAS...NORTHWEST MISSOURI...WESTERN IOWA...AND SMALL PORTIONS OF SOUTHEAST SOUTH DAKOTA AND SOUTHWEST MINNESOTA.

THE THREAT OF TORNADOES AND SEVERE THUNDERSTORMS WITH LARGE HAIL AND DAMAGING WINDS WILL EXIST IN THESE AREAS FROM 2 PM CDT UNTIL 8 PM CDT THIS TUESDAY AFTERNOON AND EVENING.

THE WATCH AREA IS ALONG AND 70 MILES...60 NAUTICAL...EITHER SIDE OF A LINE FROM SIOUX FALLS SOUTH DAKOTA TO 45 MILES...40 NAUTICAL...SOUTHWEST OF KANSAS CITY MISSOURI.

REMEMBER... A TORNADO WATCH MEANS CONDITIONS ARE FAVORABLE FOR TORNADOES AND SEVERE THUNDERSTORMS IN AND CLOSE TO THE WATCH AREA...PERSONS IN THESE AREAS SHOULD BE ON THE LOOKOUT FOR THREATENING WEATHER CONDITIONS AND LISTEN FOR LATER STATEMENTS AND POSSIBLE WARNINGS.

C...TORNADOES AND A FEW SVR TSTMS WITH HAIL SFC AND ALF TO 2 2 IN. EXTRM TURBC AND SFC WND GUSTS TO 65 KT. SCTD CBS WITH MAX TOPS TO 550. MEAN WIND VECTOR 22030.

D...TSTMS EXPCD TO DVLP AND INTNSFY AS DRY LN MOVS EWD INTO UNSTBL AMS. CELLS EXPCD TO MOV NEWD ABT 30 KTS.

E...OTR TSTMS...WATCH MAY BE NEEDED LATER THIS AFTN SWD ALG DRY LN INTO OKLA.

..DAVID..

ATTACHMENT C

TELETYPE COPY OF THE 4:14 PM CDT
AND THE 4:15 PM TORNADO WARNINGS

^222
ZZZZ

MAY 6 4 15 PM '75

ULLETIN
ORNADO WARNING
MMEDIATE BROADCAST REQUESTED

ATIONAL WEATHER SERVICE FORECAST OFFICE...OMAHA NEBRASKA
TORNADO WARNING IS IN EFFECT IMMEDIATELY FOR THE OMAHA COUNCIL
LUFFS AREA.. DETAILS WILL FOLLOW SHORTLY.

SSUED AT 414 PM CDT

ZZ

BULLETIN
TORNADO WARNING
IMMEDIATE BROADCAST REQUESTED

NATIONAL WEATHER SERVICE FORECAST OFFICE...OMAHA NEBRASKA

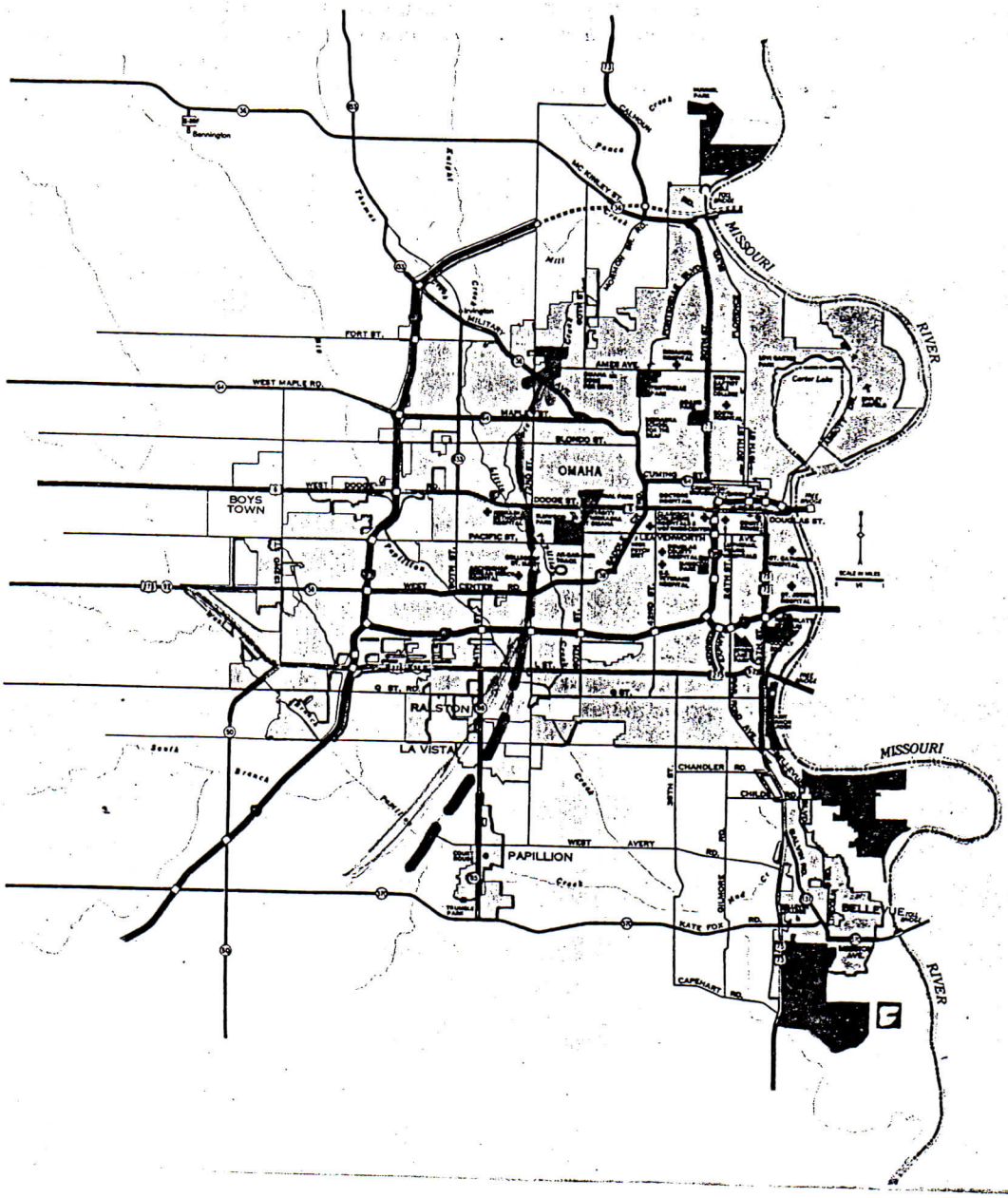
ISSUED...4.15PM CDT MAY 6 1975

A TORNADO WARNING IS IN EFFECT UNTIL 5.10PM CDT
FOR PERSONS IN WESTERN POTTAWATTAMIE COUNTY IOWA AND EASTERN
DOUGLAS COUNTY NAND SARPY COUNTY NEBRASKA.M

AT 4.09PM CDT A TORNADO WAS SIGHTED BY THE POLICE JUST EAST
OF BELLVUE AND SOUTHWEST OF OMAHA BY OMAHA RADAR. THE TORNADOS WAS
NNNN#
#A

ATTACHMENT D
TORNADO PATH

OMAHA



CHRONOLOGICAL ISSUANCES OF WARNINGS AND SEVERE WEATHER REPORTS WSFO, OMAHA MAY 6, 1975

All Times CDT

Tornado Watch 182 issued 12:37 p.m. including eastern Nebraska and western Iowa.

12:39 p.m. - Areal Outline of Watch 182.

1:15 p.m. - (APPROX) Marble-sized hail, Creighton, NE.

1:35 p.m. - Severe Thunderstorm Warning for Otoe and Cass Counties, NE, based on radar.

2:00 p.m. - Tornado reported 1/2 mile northwest of Pierce, NE.

2:05 p.m. - Severe thunderstorm warning for Dodge, Washington, Sarpy, Saunders, Douglas Counties, NE, based on Radar.

2:05 p.m. - 2-inch hail with heavy rain at Syracuse, NE.

2:30 p.m. - Large hail reported in eastern Cass and Otoe Counties.

2:30 p.m. - Severe thunderstorm warning for eastern portions of Cass and Otoe Counties, NE.

2:40 p.m. - Tornado by Radar and reported by Public, 3 NE Osmond, NE.

2:40 p.m. - Golf-ball hail at Nehawka, NE.

2:48 p.m. - Baseball hail at Nehawka, NE.

2:50 p.m. - Tornado sighted near Nehawka, NE.

2:55 p.m. - Tornado warning for eastern Cass and eastern Sarpy Counties, NE, and Mills County, IA.

2:55 p.m. - (APPROX) Tornado by Radar and Public 15 south of Crofton, NE.

2:55 p.m. - (APPROX) Tornado reported by Public, 3 NW of Winside, NE.

3:00 p.m. - 2 tornadoes at Murray, NE.

3:05 p.m. - Tornado 4SW Winside, NE. (same as one reported at 2:55 p.m.?)

3:10 p.m. - Golf-ball sized hail, Springfield, NE.

3:15 p.m. - Severe thunderstorm warning for Dodge, Saunders, Washington, Douglas, Sarpy Counties, NE, and Pottawattamie County, IA. (Based on Radar and Springfield hail report above)

3:15 p.m. - Tornado reported 8 south of Yankton, SD.

3:22 p.m. - Tornado reported 3 NW Plattsmouth, NE.

3:15 - 3:45 p.m. - A tornado reported at Magnet, NE. No report found. Only post storm reports indicating damage but no injuries.

3:27 p.m. - Tornado 1-1/2 NE Colon, NE.

3:40 p.m. - Tornado confirmed, north of Coleridge, NE.

3:45 p.m. - Severe thunderstorm warning for northern Cuming and Thurston Counties, NE. Based on Radar.

4:09 p.m. - Tornado reported NE of Bellvue, NE, on Iowa side of river.

4:09 p.m. - (Probably same) Tornado reported just E of Bellvue and SW of Omaha.

4:09 p.m. - Tornado Warning for western Pottawattamie County, IA.

4:10 p.m. - Tornado Warning Pottawattamie County, IA.

4:10 p.m. - Severe thunderstorm warning for eastern Otoe and Nemaha Counties, NE, and Fremont County, IA. Based on Radar.

4:14 p.m. - Tornado Warning for Omaha and Council Bluffs area.

4:15 p.m. - Tornado Warning for western Pottawattamie County, Iowa, and eastern Douglas and Sarpy Counties, NE.

4:29 p.m. - Tornado spotted just south of city and sirens sounded.

4:33 p.m. - TOT (Time Of Transmission) Tornado 130&Q...100&Q (confirmed by Police) Also 108th & Charles.

4:35 p.m. - Tornado Warning for Douglas County, NE.

4:38 p.m. - (TOT) Tornado (confirmed) HY-50 and I-80 by Police
Tornado by Public, 95th and Pacific
Heavy Debris flying at 72nd & L.

4:38 p.m. - (TOT) Tornado (confirmed) 84th and L, moving northeast.

4:38 p.m. - Tornado sighted SW of Eppley Field.

4:45 p.m. - Severe Thunderstorm Warning for Washington County, NE, and Harrison County, IA.

4:45 p.m. - Tornado sighted and confirmed at 72nd and Dodge.

4:53 p.m. - Funnel Aloft at 56th and Blondo dropping debris.

5:05 p.m. - Tornado Warning for Harrison and Pottawattamie Counties, IA. Based on sightings over Omaha.

5:15 p.m. - Tornado 2-1/2 south and 1-1/2 west of Waterbury in Dixon, County.

5:50 p.m. - Severe Thunderstorm Warning for Burt and Washington Counties, NE. Based on Radar.

6:15 p.m. - Severe Thunderstorm Warning for Harrison County, IA, based on Radar.

7:30 p.m. - Severe Thunderstorm Warning for Harrison County, IA. Based on Radar.

ATTACHMENT F
PREPAREDNESS ACTIVITIES

U.S. DEP
National
NATIONAL WEATHER SERVICE
11404 North 72nd Street
Omaha, Nebraska 68122

Date : May 2, 1975

Reply to Attn. of: MIC

To : Director, Central Region Headquarters

From : J. W. Zoller
Meteorologist in Charge

Subject: Activities

1. On Wednesday, April 2nd, made a half hour interview tape on severe weather for WOW, a 50,000 watt radio station. We discussed NWWS, radar, spotters, severe weather statements, safety, watch, warning, future weather equipment and some severe winter weather storms. Talked about mini-tornadoes and their difficulty in detection by radar.

2. On Friday, April 4th, made a taped television presentation on severe weather, which was shown on Sunday, the 7th, over Channel 6, WOW-TV. The movie "Tornado" was shown with a fifteen minute discussion of watch, warning, radar, spotters and the program for eastern Nebraska. Mini and maxi tornadoes and their detection were presented.

3. KETV made a fifteen minute tape on a visit to the WSFO and on severe weather. Watch, warning, satety, tornadoes and past tornadoes were the main subjects. This program was shown at 9:30 p.m. on Tuesday, April 22nd. It was a very effective program at prime time.

4. On the 30th of March tapes were made for radio and television for KFAB, a 50,000 watt station, and Channel 3, KMTV. The agricultural program was discussed as well as severe weather. A short range and extended forecast for the growing season was a prime point of interest.

5. On the 1st of April, I had to defend our actions before the Douglas County Board of Commissioners during the severe weather episode of March 27th, when a mini-tornado struck the southwest corner of Omaha.

6. Arrangements are made for a hot line between the Base Weather Station at Offutt AFB and the WSFO, which is to be installed on or about the 7th of May of this year. The cost will be shared by the National Weather Service and the Air Force.

7. The NWWS was installed in the communications room of the Omaha Police Department for better information on severe weather.

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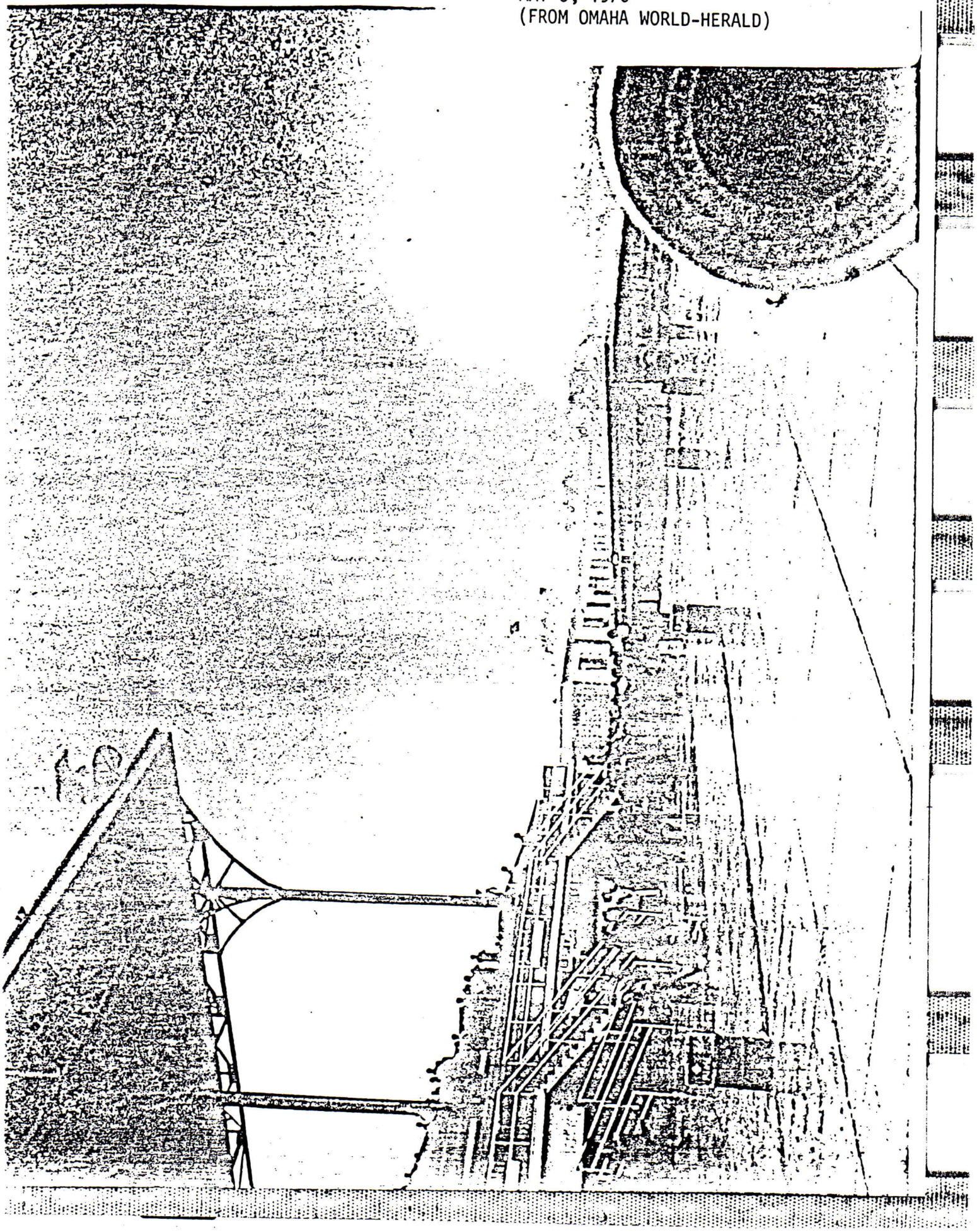
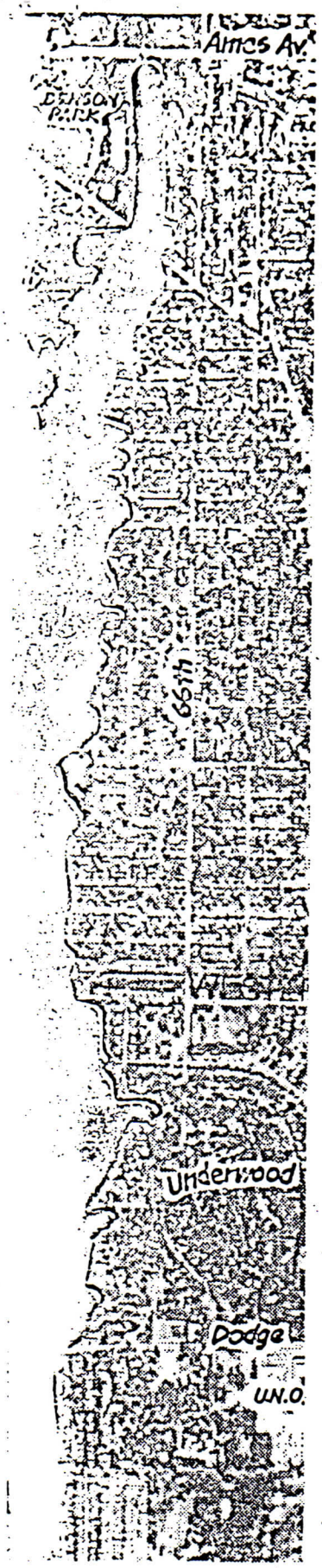
ATTACHMENT G
OMAHA TORNADO, TUESDAY 4:30 P.M.
MAY 6, 1975
(FROM OMAHA WORLD-HERALD)





Forecaster Gets A Rare Thanks

The weatherman is accustomed to criticism. If he predicts a pleasant day and it rains on the family picnic his name is what the picnic grounds become: mud.

No one seems to remember the times he's right. Heck, they say, that's his job.

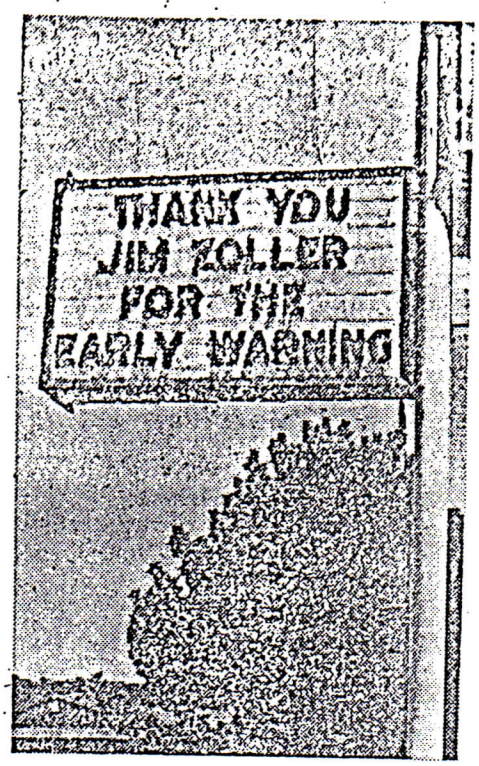
But James Zoller, meteorologist in charge of the National Weather Service in Omaha, has had his day.

A sign thanking him for his service's prompt work in issuing the tornado warning May 6 has greeted eastbound motorists passing the Wear Real Estate Co. office at 7602 Pacific Street this week.

The idea was the brainchild of Chuck Neary, sales manager. "Jim bought a house from us when he came to Omaha," Neary said, "and we appreciate the fact there was ample warning of the tornado."

The funnel, incidentally, swept past about a block east of the Wear office.

Said Neary: "It's our way of saying thanks for a job well done."



—World-Herald Photo.
Neary's sign . . . "well done."

Oiled-Up Relief Machinery Aids Some Victims on Spot

By Michael Holmes

The disaster-aid machinery is well oiled now, and help for metropolitan Omaha tornado victims is rolling in anywhere from immediately to within a month, officials said Thursday.

Francis X. Tobin, regional director of the Federal Disaster Assistance Administration, said 2,257 families had been

about services available and will inspect rebuilt houses to make sure the workmanship is good and will see that new homes meet VA loan standards.

71 Businesses

By Thursday afternoon, 588 families and 71 businesses had Kansas City, Mo., office, said applications for housing aid are taken at the one-stop centers and processed in Omaha.

18 Pct. Placed

John Bokel, director of HUD's disaster field office in Omaha, said that as of Wednesday night, HUD had placed in new residences 18 per cent of the people who have applied for help.

He said the department's goal was to place 50 families a day in replacement housing. More than 100 had been placed by Wednesday night, he said.

Bokel said placement was running about three days behind applications.

The Internal Revenue Service (IRS) assistance is both immediate and longer-term, said Carol Dorcy, a taxpayers service representative.

She said the district IRS will determine if a tornado victim's

Scout Alert

Area Boy Scouts, Explorers and their leaders should meet at the West Auditorium, 6534 L Street, at 8 a.m. Saturday to help pick up tornado debris, officials said Thursday. Scouts should wear part of their uniforms plus gloves and heavy-soled shoes and bring a sack lunch.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE CENTRAL REGION
Room 1836
601 East 12th Street
Kansas City, Missouri 64106

May 14, 1975

WFC1x2

TO: Director, NWS (W)

FROM: Charles G. Knudsen
Charles G. Knudsen
Director, Central Region

SUBJECT: Omaha, Nebraska, Tornado, May 6, 1975.

Attached is a copy of the Central Region Natural Disaster Survey Report of the Omaha, Nebraska, tornado. The survey was made May 7-8, 1975.

Attachment

cc: NWS, W117, Emergency Warning
Director, NSSFC, K. C. MO
WSFO, Omaha, NE