A

TORNADO PROJECT SUMMARY SHEET

F = 4 MAN

1. DATE AND TIME MON JULY 18, 1977 1900 CST

2. LOCATION OR PATH (attach map)

CARLOWRIE – ROSA

3. PATH LENGTH ☐ NOT KNOWN ☐ <1 mi; ☐ 1-4 mi; ☐ 5-10 mi; ☒ 11-50 mi (16.8 km); ☐ LENGTH IF >50 mi

4. PATH WIDTH 1600 m (average width) 5. TORNADO PART OF SQUALL LINE? ☐ YES; ☐ NO; ☐ UNKNOWN:

6. ANY UNUSUAL COLORATION? ☐ YES; ☐ NO; ☐ UNKNOWN

7. ANY UNUSUAL SOUND? ☐ YES; ☐ NO; ☐ UNKNOWN

8. IF ANSWER TO 6 OR 7 YES, ELABORATE; 7. "A ROAR LIKE FIVE JETS"

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.) HAIL THE SIZE OF HENS EGGS.

10. TOTAL DAMAGE ESTIMATE $0.5 million 11. TOTAL DEATHS 3, MANY CATTLE, SOME HORSES

12. TOTAL INJURED 1 13. TOTAL HOMELESS MANY

14. LIST ALL REFERENCES

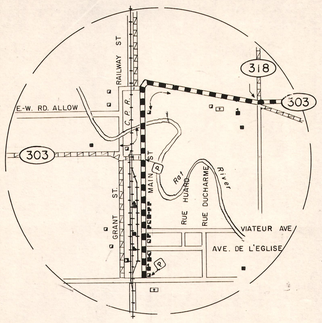
WINNIPEG TRIBUNE, JULY 19, 20, 21, 25, 1977

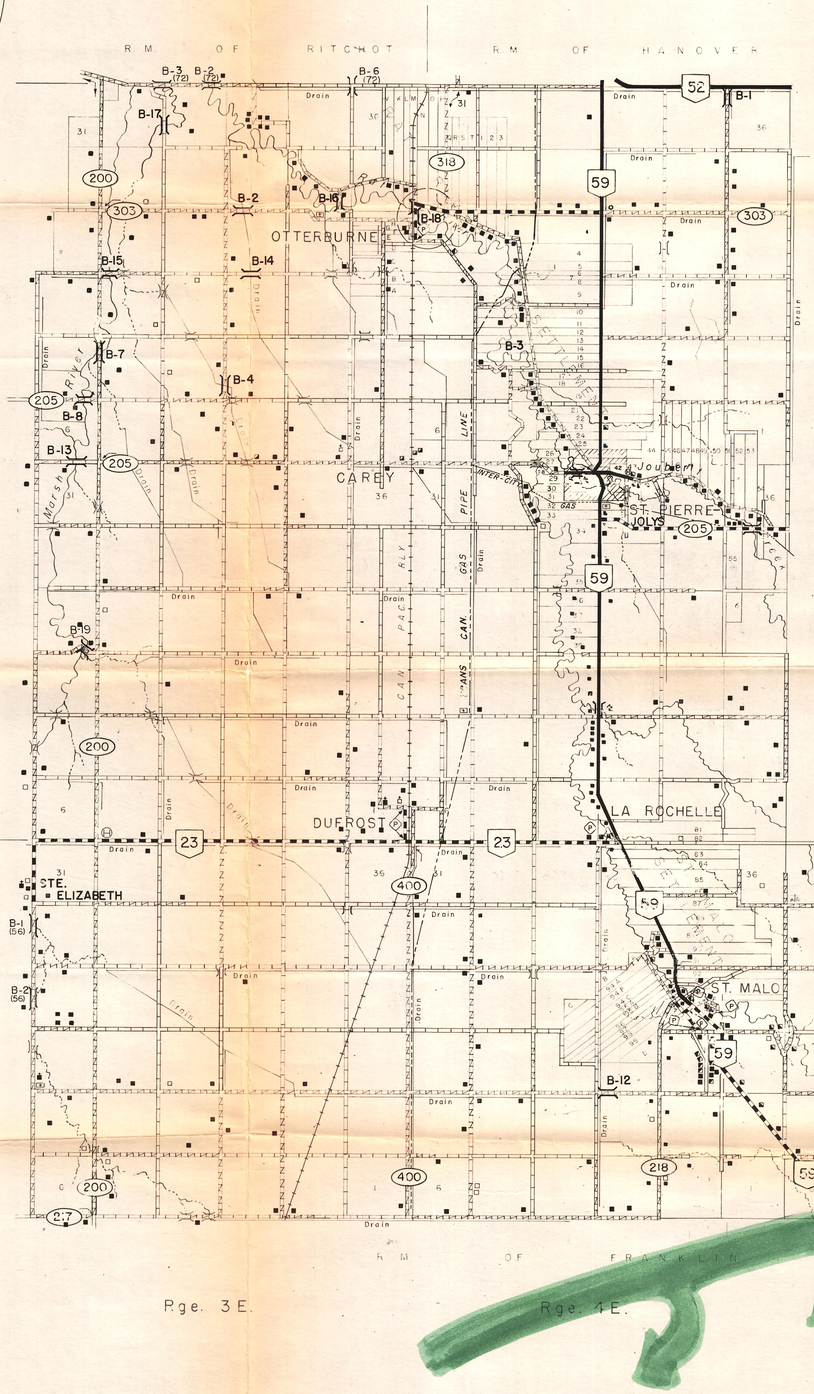
WINNIPEG FREE PRESS, JULY 19, 20, 23, 1977

A.E.S. CLIMATOLOGICAL SUMMARY FOR WINNIPEG. JULY 1977

T.T. FUJITA, MAP OF ROSA AREA SHOWING PATH AND DIMENSIONS OF THE TORNADO

15. SUMMARIZE REMARKS PERTAINING TO (a) FUNNEL; (b) INTERESTING OR CAPRICIOUS EVENTS.





PATH OF 1977 TORNADO

MANITOBA FLOOD ASSISTANCE BOARD

MANITOBA FLOOD DISASTER ASSISTANCE BOARD

LEGEND

ROADS and ROADWAY FEATURES

- Unimproved Earth Road
- Improved Earth Road
- Gravel Surface
- Double Prime Surface
- Bituminous Surface
- Concrete Surface (Concrete)
- Provincial Trunk Highway (101)
- Provincial Roads (234)
- Unnumbered Provincial Roads (P)

RAILWAYS

- Multiple Track (Station)
- Single Track (Siding)
- Bridge, Overpass and Underpass

BOUNDARYS

- Provincial
- City and Town
- Parish
- Lot or Section Line
- Indian Reserve
- Forest Reserve and Provincial Parks
- Boundary Mon., Survey Mon

DRAINAGE

- Irrigation Canals, Ditches (Drain)
- Dyke
- Intermittent Stream
- Intermittent Lake
- Marsh or Swamp
- Stream or Creek
- River (Ferry, Ford)

PUBLIC SERVICE FACILITIES
INDUSTRIAL, DWELLINGS, FARM UNITS, ETC.

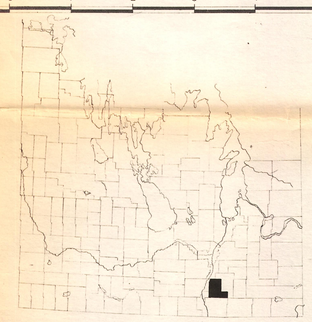
- House
- Farm Buildings, Occupied, Vacant
- Factory or Industrial Plant
- Store or Small Business Est.
- Post Office
- School
- Church
- Town Hall or Community Centre
- Grain Elevator
- Park or Playground
- Historic Site
- Cemetery
- Radio Tower
- Stock Yard — Loading Pen.
- Race Track
- Picnic or Camp Site
- First Aid Post
- Fish Hatchery
- Gravel Pit
- Pipe Lines — Gas, Oil, Etc.
- Electric Power Line
- Telephone Line
- Forest Lookout Tower
- Oil Wells
- Ferry
- Motel
- Curling Rink
- Airport
- Golf or Country Club
- Service Station
- Public Bldgs, Mun. Garage, Etc.
- Summer Cottages
- Triangulation Station
- Bench Mark (+ BM 268.5)
- Spot Elevation (in feet) (• 268.8)
- Hospital
- Theatre
- Micro Wave Tower
- Television Tower
- Telephone Sub Station
- Hydro Sub Station
- Power Plant (STEAM, (HYDRO))
- Quarry

N W E S

GENERAL HIGHWAY MAP
OF
R.M. OF DE SALABERRY
PROVINCE OF MANITOBA

PREPARED BY THE
MANITOBA DEPARTMENT OF PUBLIC WORKS
HIGHWAYS BRANCH — PLANNING & DESIGN OFFICE
WINNIPEG, 1962

SCALE IN MILES
1 0 1 2 3 4 5 6



KEY MAP

NOTE
INVENTORY COMPLETED IN ALL TOWNSHIPS (1971)

D. McCutcheon	Oct. 1977	
G. Wakelin-son	Sept. 1973	
Pitchford	June 1972	W. Moore
D. McCutcheon	March 1967	Jones
D. McCutcheon	MARCH/65	
N. Kuszak	Jan/64	
N. Kuszak	Jan/63	
N. Kuszak	Jan/62	
REVISED BY	DATE	CK'D

R.M. OF
DE SALABERRY
DISTRICT 2
SHEET 1 OF 1 Nº 22

1092

94

GLOBE AND MAIL
WED JULY 20 1977

STORM DATE
MON JULY 18 1977
2000 LOCAL

Manitoba hit hard by twister

ROSA, Man. (CP) — Residents of this area about 50 miles south of Winnipeg yesterday began salvaging what remained of their property after a tornado that killed two people and seriously injured two others.

The twister struck the area about 8 p.m. Monday and left widespread damage behind. Buildings were destroyed, livestock lost, utility poles uprooted and crops flattened.

The winds were followed by heavy rain and hail that one witness said was "as big as chicken eggs."

Officials estimated the damage at about $500,000, but there was no word from the provincial Government on whether the region near Rosa and St. Malo would be declared a disaster area.

Killed in the tornado were Michael Klem, 72, and his wife, Katherine, 58. Their daughter Joanne Grenier, 22, was in fair condition yesterday in St. Boniface General Hospital in Winnipeg, and her 14-month-old daughter Tara was listed as being in guarded condition.

All four were in the Klems' house when it was lifted off its foundation and slammed down several hundred yards away.

The devastated area was a strip as much as a mile wide and several miles long. The tornado apparently came out of the west or northwest and struck with little warning.

The force of the twister peeled asphalt from a portion of Highway 59 and tossed vehicles, buildings and trees around like toys.

A spokesman for the Emergency Measures Organibation said at least three houses were wrecked in addition to the one that belonged to the Klems.

Melvin and Trudy Schlorff were among those who saw their homes reduced to rubble. They had been restoring a farmhouse near St. Malo and had planned to move in later this week.

"I can't believe it," Mr. Schlorff said yesterday as the couple surveyed the ruins of their dream house. "There was a beautiful grove of about 40 birch trees and a 70-year-old home. The whole thing was just a picture postcard."

Ken and Marilyn Walters lost the roof of their barn, three garages and some of their pasture land near Rosa. "There was a roar like about five jets," Mr. Walters said of the winds.

Monday night's twister was the worst of its kind in Manitoba in nearly two decades. The last death in Manitoba attributed to a tornado occurred on July 17, 1958, when a Thunder Bay man lost control of his car and crashed into a ditch.

Man accused

Globe and Mail
Wed. July 20 1977



Only the foundation remains of house in which two people were killed after a tornado ripped through Rosa, Man. The tornado also deposited car into the basement. —CP

Some bookstores reluctant to handle it

Book on 'plot to Frenchify Canada' hot seller

Manitoba hit hard

METRO WEATHER

Hot, humid tomorrow, high 35 Celsius. Low tonight 22C. Details, A2.

The Toronto Star

June paid circulation
Mon.-Fri. 488,752 Sat. 774,490

Tuesday, July 19, 1977—58 pages
ESTABLISHED 1892

Pleasence and Barry Morse. E1

Four can eat on $48 a week
Day 6 — Page F1

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Births and Deaths B6
Crossword B7
Editorials B4
Action by Ottawa will create jobs
Insight B3
Jumble Puzzle B7

Section C/*Sports*
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Milt Dunnell C1
Races C5
Your Money C7

Section D/*Columns Page*
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Help Wanted D13
Star Probe D1
Want Ads D2-D15

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Entertainment E1-E4
TV Listings E3

Section F/*Family*
Ann Landers F4
Bridge F6
Social Notices F6

Manitoba tornado kills farmer, wife

Special to The Star

WINNIPEG — A farm couple was killed and a young woman and her infant daughter critically injured when a tornado carried their frame home 150 yards down a road 50 miles south of here last night.

The twister carved a five-mile swath through the countryside near the community of St. Malo.

Killed were Michael Klem, 72, and his wife, Katherine, 58. Injured were the couple's daughter, Grenier, 22, and granddaughter, Tara, 14 months.

A Royal Canadian Mounted Police spokesman said: "All that's left of the house is the foundation and a pile of rubble down the road."

The furious winds tore the house off its foundations and tossed one automobile into the basement. Another car was smashed as trees were uprooted and blown across the yard.

The 8 p.m. storm, which lasted about 15 minutes, was accompanied by heavy rain and hail.

Police said damage was confined mainly to the rural area rather than the villages.

as he painted the stuffy, air- "It's hot, it's horrible."

even hotter than toda
a high of up to 35 C
95F.

"It gets up to 400 d
sometimes with thos
ers blasting away," h
"I guess I shouldn't
plain about the pai

Alfredo Sirianni, h
install a storm sew
Dufferin St., stands 10
in the heat, wiping hi
head and damp hair
damp hand and symp
ing with his wife.

"She's in the heat al
too, — cooking. She
the spaghetti, the r
the lasagna. Hot or no
cooks. She suffers
than me."

Denise Mercer, 21, g
hot working in a la
and shirt-pressing pla
Yonge St. that she
feels dizzy.

"It's 110 degrees in h
she told The Star i
steamy, warm room n

THE "ROSA" TORNADO, MAN

WORKSHEET

...IDTO...

(1) ORIGIN x 14643200
y 5464300

(2) LIFT-OFF x_1 14658300
y_1 5470800

(3) $(x_1 - x)$ = 15100

(4) $(y - y_1)$ = 6500

(5) C100 Standard Error S_x

(6) C100 Standard Error S_y

(7) DAMAGE LENGTH

$$L = [(x_1 - x)^2 + (y - y_1)^2]^{1/2}$$

(3)+(4) $\boxed{\rightarrow r,\theta}$ = 16800

(8) $\alpha = \tan^{-1} \dfrac{|y - y_1|}{|x - x_1|}$

$\boxed{x \leftrightarrow y}$ = 23°

(9) Standard Error $S_L = (S_x^2 + S_y^2)^{1/2}$

(5)+(6) $\boxed{\rightarrow r,\theta}$ = 14.1 m C

(10) $\beta = \dfrac{\tan^{-1} S_L}{L}$

(7)+(9) $\boxed{\rightarrow r,\theta}$
$\boxed{x \leftrightarrow y}$ = 1°

NE quad $\phi = 90 - \alpha$
NW quad $\phi = 270 + \alpha$
SW quad $\phi = 270 - \alpha$
SE quad $\phi = 90 + \alpha$

(11) ϕ = 247°

The Winnipeg Tribune

No. 168 Wednesday, July 20, 1977 ★★ Final Edition

Storm losses heavy

Municipal officials in Rosa, Man., have estimated damage from Tuesday's tornado which tore through the area and killed two people at about $500,000.

Walter Dolinski, right, found a shovel missing from his barn had been imbedded in this tree about 150 yards away.

An Emergency Measures Organization official said a survey shows the wind damaged a 35-square-mile area from St. Malo to Rosa. Three farms, including machinery and buildings, were virtually devastated.

Three horses and four head of cattle were found dead.

Stories and pictures on Page 4.



Tribune photo by Jon Thordarson

Result could have been worse

Tornado one of worst on continent

Winnipeg Tribune
Aug 25 1977

Storm date: Monday
July 18 1977

By Stephen Riley
Tribune Staff Writer

The tornado which carved its way through a large chunk of Manitoba farmland July 18 was one of the most violent on the continent, says an American Tornado expert.

Dr. Tetsuya Fujita, of the University of Chicago, said the twister, which killed three people, was "devastating" in its force and could have caused even worse results.

"If it had gone through Winnipeg — and that was quite possible — I wouldn't be surprised to see 100 people killed," he said in an interview Wednesday.

As it was, it whip-sawed through an area a mile wide by 10 miles long near the communities of St. Malo and Rosa, 38 miles south of the city, causing $300,000 damage.

"I think it came very close to Winnipeg," said Dr. Fujita, who heads a government project on severe storm research. "Within nature, for a disturbance like this to move 100 miles would be nothing . . . I don't think you're immune in Winnipeg from a storm like this. I think it's time the public was educated about that."

Dr. Fujita has personally "tracked" over 200 tornadoes in the United States since 1953 and came to Manitoba last month to analyze the effects of the St. Malo twister. Officials at the regional weather office here have said they are anxiously awaiting his report.

To explain the severity of the tornado, he resorted to a scale adopted by the U.S. Weather Service and named after Dr. Fujita. The "F" scale from 1 to 12 co-relates the Beaufort wind scale with the speed of sound.

Judging from the effects of the storm,

See EXPERT, Page 5.

Expert dissects killer tornado

(Continued)

he estimated winds at the core to be as high as 260 miles an hour — at the upper reaches of F4. The most violent recorded tornadoes in the U.S. have been F5 and occur once or twice annually in the "tornado belt" covering the central United States.

And it was as big as it was vicious.

"It was very large, a tornado such as this could wipe out a small community — just like that," he said. Most twisters dissipate after travelling two miles or so.

Will it happen again?

"You could have it again next summer — anytime after June," he said, without hesitation. "Some people say 'once in a hundred years' but I don't believe it. Nobody can say for sure. I'm saying that by next spring, you'll need public education of some kind — even before you get into the matter of a warning system."

His aerial and ground survey of the devastated area disclosed several pieces of evidence to indicate the intensity of the killer twister.

He saw one or two trees stripped of their bark — a phenomenon usually associated with tornadoes of F5 intensity, he said.

Pavement was torn from parts of a highway, something Dr. Fujita has seen only once — after a tornado in Texas.

"Very unusual," he said.

The three deaths occurred at a farmhouse in the path of the twister; the house was wrenched from its foundations and carried several hundred yards.

"It was not ahcnored too well," said Dr. Fujita. "If people know a tornado is coming and they live in a house like that, they should go into the basement."

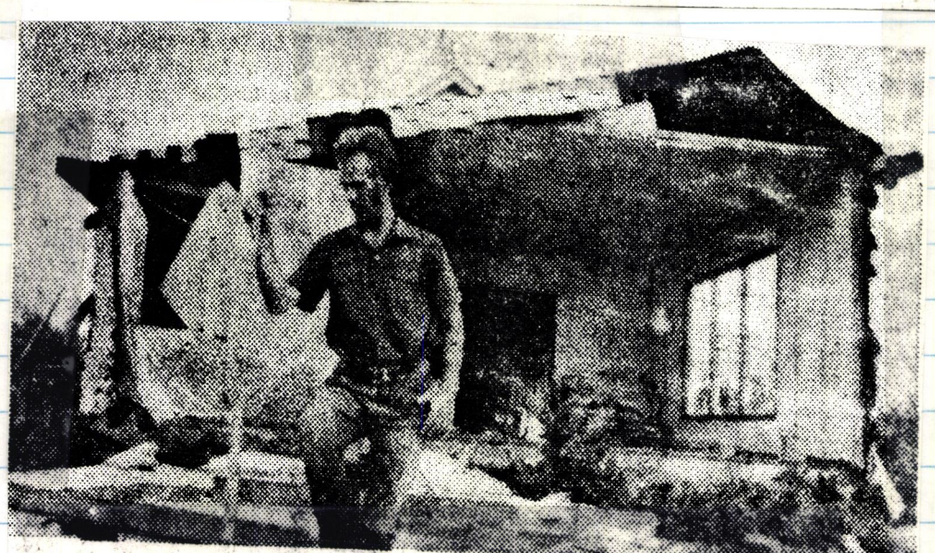
This particular disturbance struck quickly, though, he said.

He suggested that southern Manitobans learn the various warning signs before a tornado strikes again.

They include the presence of low thunderclouds, any strange noise — like the sound of a freight train or the buzzing of millions of bees.

"And dogs — they're oiften quite sensitive; they can sense an oncoming tornado, we think, but we don't fully know about the extent of that sensitivity; it's characterized by very unusual behaviour."

It's no point watching birds for telltale signs; they don't appear to know anything about such impending disaster.



Cornelius Penner sifted through the ruins of his house after the July 18 twister.

Toronto Star: Tues July 19 77
Storm Date: Monday July 18 77

Manitoba tornado kills farmer, wife

Special to The Star

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A Royal Canadian Mounted Police spokesman said: "All that's left of the house is the foundation and a pile of rubble down the road."

The furious winds tore the house off its foundations and tossed one automobile into the basement. Another car was smashed as trees were uprooted and blown across the yard.

The 8 p.m. storm, which lasted about 15 minutes, was accompanied by heavy rain and hail.

Police said damage was confined mainly to the rural area rather than the villages.

Storm Date Monday July 18 1977

Notes on the Rosa Tornado

Date / Time: July 18, 1977 / 7:30 - 8:00 p.m.

Injury and Damage: 3 deaths, $1 million?

Location and Movement: "Winding Path" ("Whip-sawed")
? Path - 1 mi W. of Carlowrie toward ENE
F Scale (1-12) for 8 (13.6 km / mi): width from 100 m to 1.5 km (1 mi).

Intensity: Fujita estimates from damage "upper reaches of F4." (Most violent recorded in US = F5; occur ~ 10x2 times in tornado belt.

Lights: Very Large

Damage: One or two trees stripped of bark - indicative of high intensity - usually sign of "F-5" strength
Pavement torn from highway (I-9) - Fujita scale utilized only once (in Texas).

People & Sound Signs: Low thunderclouds, strange roaring like sound of freight trains or the buzzing of millions of bees. - dogs sensitive to strange sound

→ Shovel - "appeared to hop along, leaving large circular areas of destruction separated by narrow areas of ~~damage~~ limited damage".

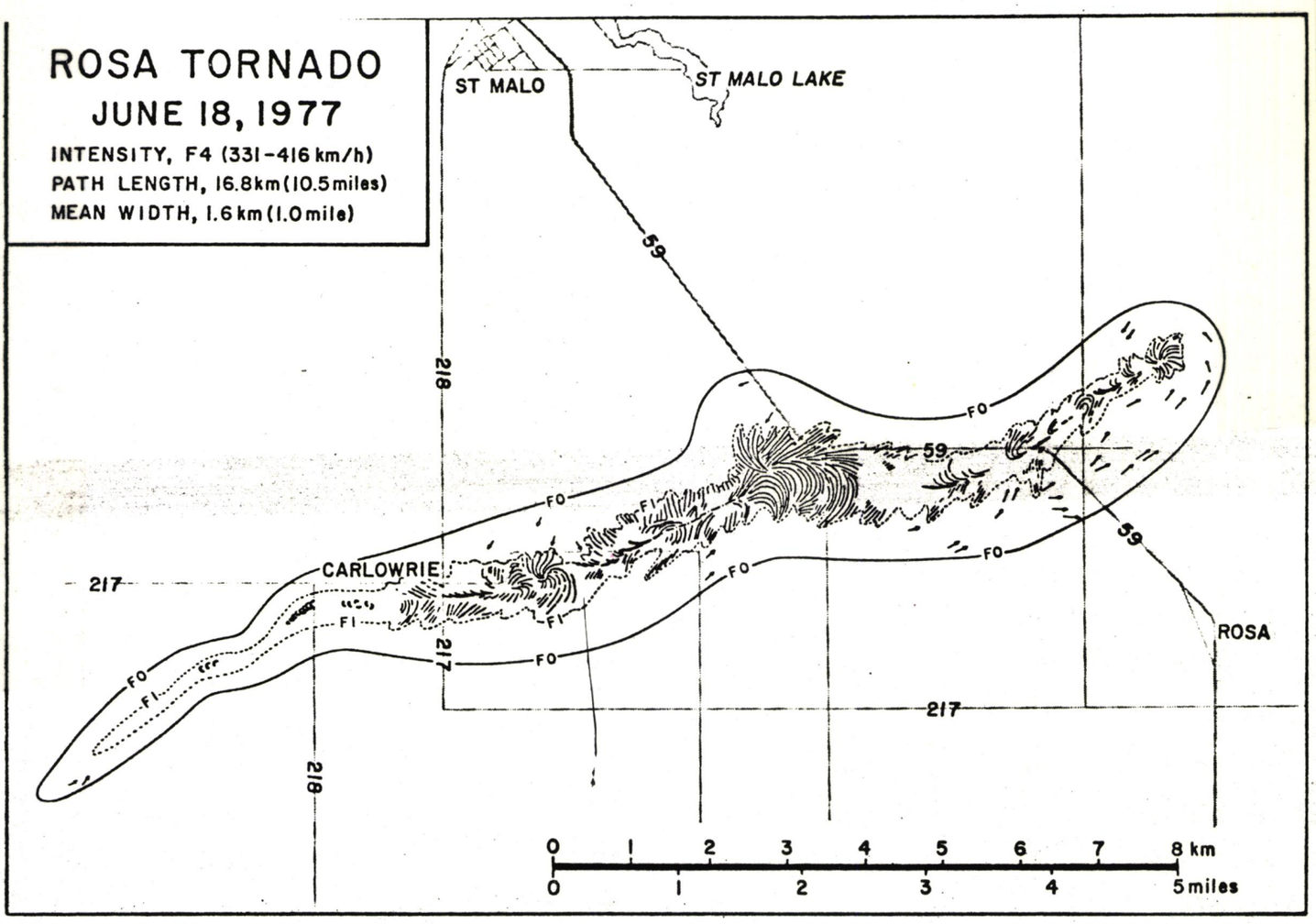
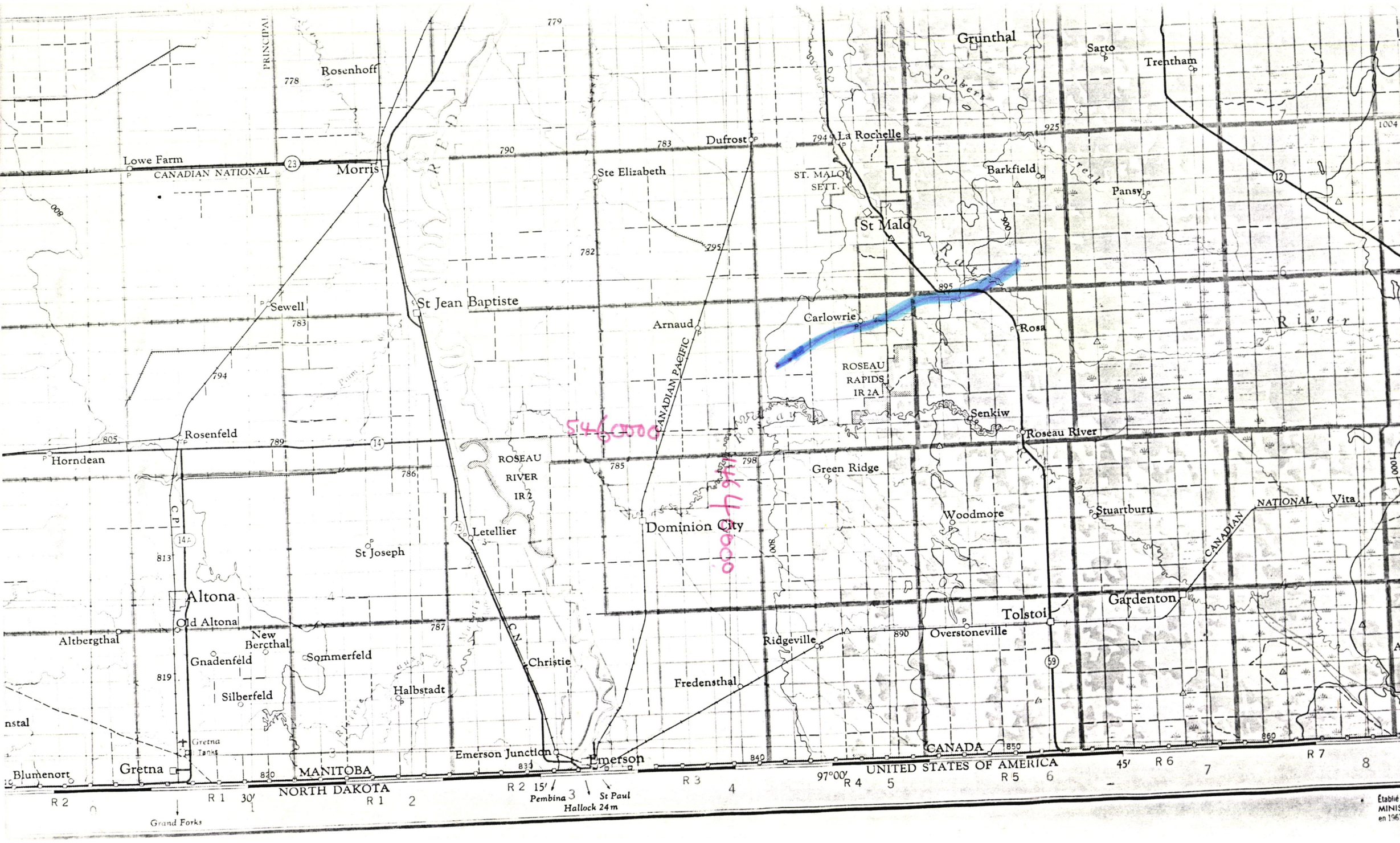


Figure 1

Map of Rosa Area showing path of storm


Grunthal
Sarto
Trentham
Rosenhoff
Lowe Farm
CANADIAN NATIONAL
Morris
Dufrost
La Rochelle
Ste Elizabeth
ST. MALO SETT.
Barkfield
Pansy
St Malo
Sewell
St Jean Baptiste
Arnaud
Carlowrie
Rosa
ROSEAU RAPIDS IR 2A
Senkiw
Roseau River
Rosenfeld
Horndean
ROSEAU RIVER IR 2
CANADIAN PACIFIC
Green Ridge
Dominion City
Letellier
St Joseph
Woodmore
Stuartburn
Vita
CANADIAN NATIONAL
Altona
Old Altona
Altbergthal
New Bercthal
Gnadenfeld
Sommerfeld
Silberfeld
Halbstadt
Christie
Ridgeville
Overstoneville
Tolstoi
Gardenton
Fredensthal
Gretna
Gretna Tanks
Blumenort
Emerson Junction
Emerson
CANADA
MANITOBA
NORTH DAKOTA
UNITED STATES OF AMERICA
Grand Forks
Pembina
St Paul
Hallock 24 m
97°00'
45'
15'
30'
R 1
R 2
R 3
R 4
R 5
R 6
R 7
Joubert Creek
Roseau River
Rat River
Red River
PRINCIPAL



— Photos by Jim Haggarty

Only foundations remain where Mike and Katherine Klem, who died in Monday's tornado, lived. Tuesday, neighbors helped Cornie Penner, whose home, garage, barn, greenhouse and four granaries (below) were damaged.

JULY / JUILLET

RMAL RMALE	RECORD FOR THE MONTH RECORD POUR LE MOIS					
	HIGHEST MAXIMUM ABSOLU			LOWEST MINIMUM ABSOLU		
	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	VALUE RELEVÉ	DAY JOUR	YEA ANN
3.9	42.2	11	1936	26.1	22,24 25	188
6.1	11.7	27, 30	1943 1935	1.1	3	197
9.7	24.2		1936	15.4		188
0.3	197.4		1953	13.5		187
Nil.	Nil.		Nil.	Nil.		
0.3	197.4		1953	13.5		187
11	18		1912 1938	5		192 193
	133.6	12	1914			
Nil.	Nil.		Nil.	Nil.		
	133.6	12	1914			
	17.8	16	1968			
	24.6	16	1968			
	35.3	16	1968			
	39.4	16	1968			
	39.4	16	1968			
	133.6	12	1914			
6.3	20.9		1952	10.9		197
52	NW 68	10	1946			
86	SSW127	14	1959			
10.8	367.7		1974	178.3		191
8.47	98.70		1956	98.20		197
9.54	100.04	4	1972			
7.15				96.28	1	196

YEARS
DERNIÈRE ANNÉES

MAXIMUM WINDSPEED VITESSE MAXIMALE DES VENTS	HOURS SUNSHINE HEURES INSOLATION	HEATING DEGREE-DAYS DEGRÉS-JOURS DE CHAUFFE	GROWING DEGREE-DAYS DEGRÉS-JOURS DE CROISSANCE
NW 58	312.6	41.7	394.4
NE 37	298.1	28.9	422.2

CLIMATOLOGICAL SUMMARY FOR JULY 1977 AT WINNIPEG, MANITOBA

Winnipeg weather was normal during July except for thunderstorms, which occurred on 12 days to equal the record of 12 set in July 1953. No hail was reported, but several thunderstorms were severe. July 13 was the unlucky day when two heavy thundershowers quickly poured 41.0 mm. of rain that flooded some sections of the city. This storm generated a tornado that ripped apart buildings ten miles south of Winnipeg. Five days later a more severe tornado struck St. Malo, some 35 miles outside of the city, where three people died and buildings were destroyed.

Total rain fall for the month amounted to only 5mm. more than normal with 85.3 mm. being measured.

The sun shone on Winnipeg for 30 hours more than usual with a total duration of 340.5 hours, but temperatures were right on normal. The monthly mean averaged 19.4 degrees celsius compared to the normal 19.7C. July 18 was the warmest day with a maximum of 31.6C and July 25 hit the low of 8.3C.

DAILY WEATHER SUMMARY FOR JULY 1977 AT WINNIPEG, MANITOBA

1. Below normal temperatures. Mostly sunny. Gusty northwest winds in the afternoon.
2. Normal temperatures. Sunny becoming cloudy in the afternoon. Thunder 2:23 p.m. to 6:21 p.m. Showers 2:30 p.m. to 6:32 p.m. Gusty southeast winds.
3. Above normal temperatures. Mostly sunny. Mostly light winds.
4. Above normal temperatures. Cloudy clearing by afternoon. Showers 7:10 a.m. to 8:11 a.m.
5. Above normal temperatures. Mostly cloudy. Light winds. Thunder 4:43 p.m. to 6:27 p.m. 7:21 p.m. to 7:32 p.m. Showers 3:41 a.m. to 10:29 a.m. 5:07 p.m. to 7:05 p.m. House hit by lightning. Heavy fog 11:49 p.m. continued.
6. Above normal temperature. Partly cloudy. Heavy fog to 2:19 a.m. 3:20 a.m. to 4:47 a.m. Light fog until mid-morning. Drizzle 1:38 a.m. to 2:10 a.m. Light winds.
7. Normal temperatures. Sunny becoming cloudy late afternoon. Thunder 7:05 p.m. to 9:25 p.m. Showers 5:45 p.m. to 9:25 p.m. Mostly light winds.
8. Below normal temperatures. Partly cloudy. Showers 10:10 a.m. to 10:13 a.m. 3:06 p.m. to 5:32 p.m.
9. Below normal temperatures. Mostly sunny. Light winds.
10. Normal temperature. Sunny becoming cloudy late morning. Thunder 9:04 p.m. to 10:27 p.m. Rain 10:40 a.m. to 2:15 p.m. 9:50 p.m. to 11:22 p.m. Mostly light winds.
11. Below normal temperatures. Mostly cloudy. Thunder 00:22 a.m. to 1:27 a.m. Showers 1:27 a.m. to 7:41 a.m. 10:42 a.m. to 10:41 p.m. Drizzle 10:50 p.m. continued. Mostly light winds.
12. Normal temperature. Mostly sunny. Drizzle to 2:11 a.m. Mostly light winds.
13. Devastating thunderstorms. Sky as dark as night at mid-day. Basements, subways flooded, cars stalled. Power outages. Telephones out. Lightning struck several buildings. Tornado near St. Adolphe. Roofs blown off. Buildings collapsed. Considerable property damage. Fort Richmond reported 90 MMS. St. Matthews and Wall Street 94 MMS. St. Boniface up to 71 MMS. some areas very little. Below normal temperatures. Cloudy. Strong west winds in the afternoon. Thunder 7:10 a.m. to 1:45 p.m. 6:45 p.m. to 7:57 p.m. 9:35 p.m. to 9:45 p.m. Showers 6:11 a.m. to 4:46 p.m. 6:08 p.m. to 10:12 p.m. Drizzle 10:12 p.m. to 11:16 p.m. Visibility restricted in thundershowers.
14. Below normal temperatures. Drizzle 2:27 a.m. to 3:44 a.m. Light fog in morning. Partly cloudy. Mostly light winds.
15. Near normal temperatures. Mostly sunny. Light winds.
16. Normal temperatures. Mostly sunny. Thunder 2:50 a.m. to 3:06 a.m. Showers 2:28 a.m. to 2:32 a.m. Light winds.
17. Above normal temperatures. Partly cloudy. Thunder 3:23 a.m. to 3:41 a.m. 5:14 a.m. to 6:03 a.m. 7:43 p.m. to 8:20 p.m. Showers 3:28 a.m. to 6:03 a.m. 7:50 p.m. to 8:10 p.m. Mostly light winds.
18. Killer tornado about 7:00 p.m. CST cut swath from 3/4 to 1½ miles wide over 35 square miles from St. Malo to Rosa Manitoba. 3 dead over $500,000 damage. Warm. Partly cloudy. Showers 6:59 p.m. to 7:02 p.m. Thunder 6:20 p.m. to 7:10 p.m. Light winds.
19. Above normal temperatures. Sunny becoming cloudy late morning. Thunder 12:50 p.m. to 2:51 p.m. Showers 1:51 p.m. to 2:24 p.m. Mostly light winds.
20. Normal temperatures. Mostly sunny. Mostly light winds.
21. Above normal temperatures. Sunny. Light winds.

O W. T 13 x 15

DEAD

MICHAEL KLEM, 72, ST MALO
KATHERINE KLEM, 58., ST MALO
TARA GRENIER, 14 months, ST MALO.

dozens of cattle.

INJURED

~~GRENIER KLEM~~
~~TARA KLEM~~
JO-ANNE GRENIER

TORNADO: Two dead, path of destruction

Winnipeg Tribune
Tues. July 19 77
Mon. July 18 77

By Chris Smith
Tribune Staff Writer

ST. MALO — Two people were killed and two others were injured when a tornado cut a mile-wide swath near this southern Manitoba community Monday night.

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In critical condition in St. Boniface Hospital are Joanne Grenier, 22, and her 14-month-old daughter Tara.

An RCMP spokesman said he doubted if the death toll would be higher after daylight searches.

Damage to property, livestock and crops cannot be accurately determined until later today, but a councillor for the Rural Municipality of Franklin estimates it may run as high as $1 million.

The tornado left a trail of flattened or damaged buildings, uprooted hydro poles, flattened trees, and at one point lifted asphalt off Hwy. 59 about five miles south of here. The path was about five miles long.

Peter Awonchuk, of St. Malo, was one of the first people at the scene of the deaths. "I didn't know if I should check the bodies or what. I started to head back to the car, to go get the police, and I heard a call for help coming from behind some bushes.

"I found a lady sitting there. I didn't know at the time it was my cousin, I didn't even recognize her."

Dozens of houses in the area around Carlowrie, about four miles from here, were damaged as the tornado cut a swath from one-eighth to one-mile wide and carried debris about 2½ miles away, said Steve Zaretski, a councillor for the RM of Franklin.

The tornado touched down first about one mile west of Carlowrie, knocking down hydro and telephone poles, he said, before damaging houses in the area and following a winding path for three or four miles before "really settling at the house" where the Klems were killed.

Mr. Zaretski had about 10 people making spot checks of the affected area to make sure there was no looting or cattle rustling during the confusion and while people were away from their homes.

Cornie Penner had recently built a new home in Carlowrie, but one end wall was blown off by the tornado and all the windows were blown out.

Only one bedroom remained intact early today and he and his wife were trying to get to sleep in it. His wife said they had been having coffee when the tornado hit, spraying shattered glass all over the house.

They hid in a basement storage room for a few minutes

See TORNADO, Page 5

Tornado causes death, damage

(Continued)

before coming up to find the wall torn off the house. A cinder block garage behind the house was knocked down.

When a neighbour jokingly asked if he could use the Penner's granary because it was now on his property, Mrs. Penner asked "Have you got my chesterfield?"

When asked how they felt, she replied, "We're fine. Just trying to sleep."

She said that even though the one bedroom was still usable, the nails in the wall had been sucked out by the tornado.

Unconfirmed reports said the tornado wrecked a highways department trailer on provincial road 216 about one-half mile east of Hwy. 59 just south of here.

A member of a highways department crew putting up bump signs where the storm had ripped up the asphalt said a man had left the trailer earlier in the evening to visit his wife, escaping injury or death when the tornado struck.

Other reports said dump trucks and a road grader were thrown across PR 216 by the tornado. Road signs in the area have disappeared, the crew said.

Two men keeping reporters and onlookers away from the home where the couple died said they heard a car had been thrown into the basement.

They added RCMP had made a search in the bush around the house earlier in the night because it was not known if three boys staying at the house were home at the time of the accident. The boys were reported to be in Winnipeg.

The house was not in sight from the road early this morning; just the foundation and trees fallen over a car in the yard. Trees just to the side of the house were untouched.

Mr. Zaretski said he had met Mr. Klem just two days ago at a social. They had discussed road repairs over a beer, and Mr. Klem had offered clay from his property for the repairs.

"Now, just 48 hours later, look" said Mr. Zaretski as he waved his hand at the empty yard.

He said the hot and humid weather of the past coupl days had made him think of tornadoes because he had s them hit in Alberta, but he never really imagined would hit in the area.

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He said about five houses in the small community Carlowrie were badly damaged, and he described the ov all situation as "very bad, very bad."

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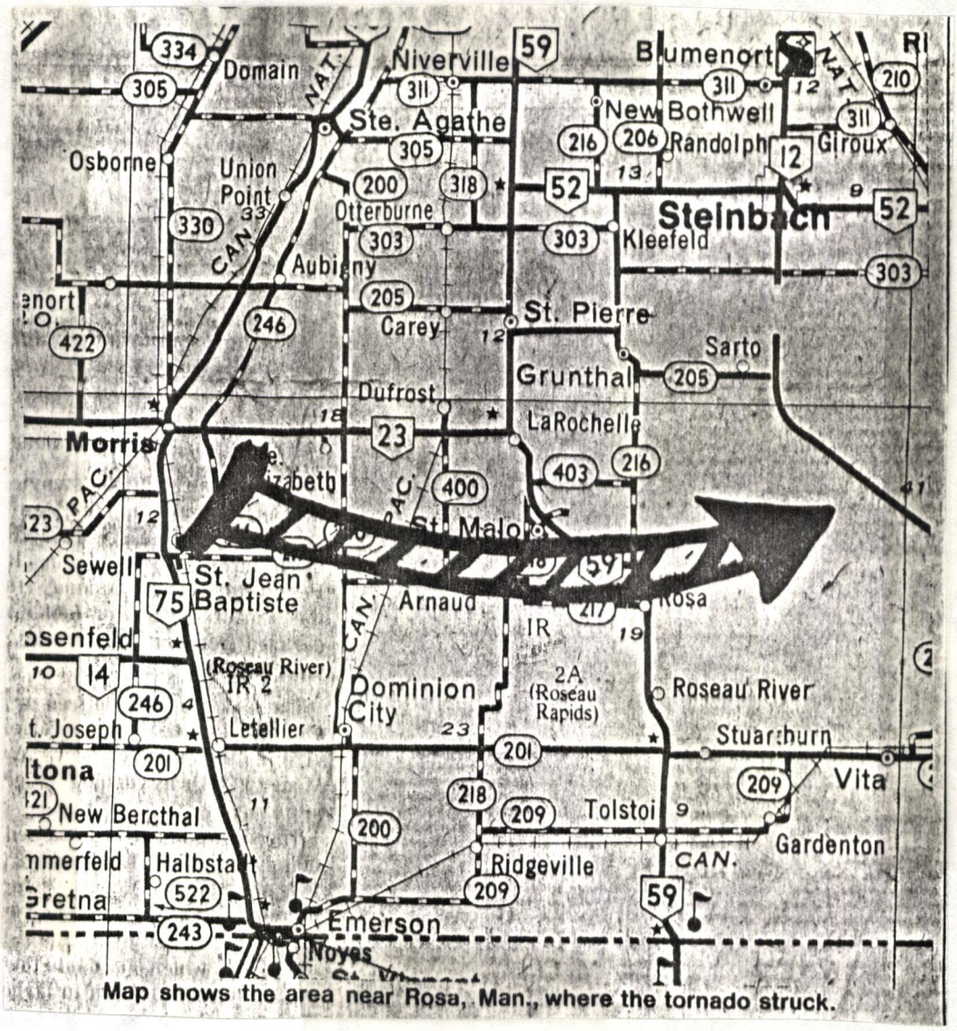
Half a house being built by Maurice Soulodre was tor off when a small tornado blasted through the small com munity. Two garages were damaged, and a number of gran aries were flattened as well.

Nel Stevenjord, of the Emergency Measures Organization, said a representative was sent to the scene of Monday's tornado about 10:30 p.m., but no report had been received by early morning. He said a complete assessment would have to wait until daylight.



Map shows the area near Rosa, Man., where the tornado struck.

Winnipeg Free Press : Tues July 19 77



—Staff photo

Jim and Marilyn Walters stand beside their barn damaged in the Rosa tornado.

Dairy farm destroyed in 'five minutes of hell'

By JIM HAGGARTY

ROSA, Man. — To Marilyn Walters, the tornado was five minutes of hell.

"There was a roar like about five jets," her husband Ken, added. "My wife was in the kitchen and she heard it."

The Walters farm at Rosa.

Fighting back tears as she stood in their roofless barn surveying the damage done to the dairy farm, Mrs. Walters found the damage hard to believe.

Her husband, slightly more composed, said he lost his pasture he uses for his dairy herd. "The bush was pretty well flattened," he explained and he lost the dairy parlor, three garages, and the barn in the storm where winds reached more that 150 kilometres per hour. The tornado was followed by rain and hail stones the size of chicken eggs, witnesses said.

"It (the storm) just tore a few shingles off the roof of the house. A fellow about two miles from here, it took pretty well his whole house except for one room. All he's got left is one bedroom.

"The fellow across the road, it took his barn completely."

Walters can see little in the family's future. All he sees now is the cleanup and waiting for help.

The municipal councillor stopped to see him after the tornado and said the farmlands would be declared a disaster area.

Walters said he has lived in the area since 1974. Up until now it has been a pleasant existance.

He added with a touch of humor that his farm looked a lot better Monday morning than it does Tuesday. What a difference a day



—Staff photo

A solitary tree stripped of most of its foliage and piles of straw and wheat, uprooted from fields, piled against fence posts bear mute testimony to a tornado that swept through a mile-side, six-mile long farming area near Rosa, Man., about 55 miles southeast of Winnipeg. Two people died in the Monday evening storm, described as five minutes of hell by one Rosa area resident.

Winnipeg Free Press, Tues. July 19 77

Winnipeg Tribune
Tues. July 19 '77
Storm Date: Mon July 18

Weather office warned only about 'risk' of thunderstorm

No warning of a possible tornado was issued by the weather office Monday evening, officials said.

Forecaster Vern Dingle, at the Winnipeg weather office, said a warning of "a risk of a severe thunderstorm" was sent out to radio and television stations at 7:00 p.m., about one-half hour after it was discovered a thunderstorm was forming.

All media were issued the warning by 7:30 p.m. Mr. Dingle said. Aircraft were sent a bulletin as well, he said.

"We don't forecast tornadoes. People would not know what to do other than what they do for thunderstorms," said Michael Balshaw, an Environment Canada official.

"Our policy is that without confirmation of a tornado occurring, we would not normally mention a tornado in the forecast.

"The reason for that is that it is a relatively rare event, that affects a small area . . . and it is virtually impossible to pinpoint."

Mr. Balshaw said there are an average of six tornado-like storms per year. He said he could not predict how likely a recurrence is within the next two weeks.

"It's virtually impossible to forecast an actual tornado event. We can forecast severe thunderstorms, and the possibility of hail or high winds. Then we really have to wait.

Mr. Balshaw said the weather office "does not have the observation network" to find out where tornadoes occur.

"In the future, with a little more resources, we can improve slightly on homing in on areas."

He said the weather office is investigating getting information from the RCMP on where tornadoes are spotted.

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Only one bedroom remained intact early today. He and his wife slept in it. His wife said they had been having coffee when the tornado hit, spraying shattered glass all over the house.

They hid in a basement storage room for a few minutes before coming up to find the wall torn off the house. A cinder block garage behind the house was knocked down.

When a neighbour jokingly asked if he could use the Penner's granary because it was now on his property, Mrs. Penner asked "Have you got my chesterfield?"

Mr. Penner and his wife, Anna, were suprisingly chipper this morning after having had breakfast at a neighbor's.

Pointing to a spot about 50 feet from his home, he said: "Over there I had four steel grain bins. I never insured them because I figured they were so well protected by the trees that nothing would happen to them."

See TORNADO, Page 5

Tornado causes death, damage

(Continued)

Today, three of the 20-foot bins are missing — along with the trees. One of the bins is believed to have been located, on a neighbor's land four miles away.

Mr. Penner said he shot one cow Monday because it had both hind legs broken by the tornado. His other cattle would be rounded up and probably sold because his feeders had been demolished by the storm.

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Other reports said dump trucks and a road grader were thrown across PR 216 by the tornado. Road signs in the area have disappeared, the crew said.

The house was not in sight from the road early this morning; just the foundation and trees fallen over a car in the yard. Trees just to the side of the house were untouched.

A car had been dropped into the basement of the Klem home by the wind.

Behind the house, a chicken coop had been smashed, although many chickens were still alive and scratching for food, this morning. One man went about killing the injured birds.

In the bush nearby was the body of a horse which had been used to give rides to the Klems' grandchildren when they came to visit. A second horse is missing.

Mr. Zaretski said he had met Mr. Klem just two days ago at a social. They had discussed road repairs over a beer, and Mr. Klem had offered clay from his property for the repairs.

"Now, just 48 hours later, look" said Mr. Zaretski as he waved his hand at the empty yard.

He said the hot and humid weather of the past couple of days had made him think of tornadoes because he had seen them hit in Alberta, but he never really imagined one would hit in the area.

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Tribune photo by Frank Chalmers

Trees flattened

Steve Maksymchuk of St. Malo views trees on his property, flattened and with trunks shattered by the force of the tornado which tore a swath of destruction through the district Monday night.

WPG. Free Press SAT. JULY 23/77

Ottawa awaits request for tornado assistance

Storm Date
Monday July 18
1977

OTTAWA (Staff) — Conservative MP Jake Epp (Provencher) expressed "disappointment" in the Commons Friday over the failure of Manitoba's NDP government to apply for disaster relief for a southeastern area of that province struck by a tornado.

Epp, whose riding is in the storm-ravaged area, was told by Finance Minister Donald Macdonald that he had not yet heard from Premier Ed Schreyer about any need for disaster assistance.

Preliminary estimates of damage by the twister, which killed two people when it struck Monday, range up to $1 million.

Macdonald said Ottawa could respond only to a provincial request.

"If the province needs the assistance and meets the requirements, I would then be prepared to have the matter considered further within my department."

It was the second time in four days that the Provencher MP had asked the government about whether help had been sought by the province.

Credit unions offer loans

Five credit unions are offering low-interest loans to tornado-stricken residents of Rosa, Man.

Barney Martin, chief executive officer of the Co-operative Credit Society of Manitoba, said the loans are being made available at an interest rate of three per cent to help people repair houses, barns and other damaged or destroyed property.

Martin said the loans, made available under a program that started Wednesday, will not affect any financial assistance from the Manitoba or federal government.

He said the operation includes credit unions in Vita, St. Malo, St. Pierre, Dominion City and Grunthal.

Storm claims to top $2.2m?

PRINCE ALBERT, Sask. (CP) — Insurance claims from a recent hail and wind storm will probably total $2.2 million, Dallas McQuarrie, Saskatchewan government insurance office spokesman, said Friday.

Government adjustors and estimators have examined about 850 cars and 1,000 residences — half the expected total.

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WPG. Free Press THURS. JULY 21/77

Stay calm in tornado, EMO advises

Getting carried away is probably the worst thing to do if one is unlucky enough to be in the vicinity of a tornado.

Although tornadoes in Manitoba do not occur that often — about six a year according to the Winnipeg weather office — the Manitoba Emergency Measures Organization (EMO) advises people to stay calm if a twister appears out of a bank of angry dark clouds.

As well, a few guidelines should be followed for personal protection.

Ken Seal of the U.S. national weather service in Bismarck, N.D., says reporting the existence of the tornado to police or government officials is highly important. The information can then be distributed to other organizations which can alert the public to the danger.

For personal safety, a place in one's house affording the most protection should be found. A storm cellar is the best, but a basement would be almost as good.

If the house has neither, locking oneself in a closet in the centre of the building, or taking cover underneath a bed or a heavy desk is advisable.

If possible, seek shelter in the southwest corner of the house, the direction from which most tornadoes strike. If a tornado hits the building, the debris would be carried in the opposite direction from the occupants.

Some windows should be left open to help equalize the low pressure created by the twister, but they should be given a wide berth to avoid being struck by debris from outside.

Jumping in the bathtub and covering yourself with a mattress is another alternative method of protection.

People in schools, apartments, or office towers should attempt to take refuge in the basement or in a large corridor on the bottom floor.

Premier sets terms for tornado aid

WPG. Free Press FRI. JULY 22/77

Premier Ed Schreyer says provincial aid may be given to victims of Monday's tornado in the St. Malo-Rosa area, but only if it is matched by the federal or municipal governments.

Schreyer, who was given a helicopter view Wednesday of the 10-square-mile area heavily damaged by the tornado, said he believes provincial and federal financial assistance is justified.

The twister, which killed two people and injured at least two others, caused damage estimated as high as $1 million.

Schreyer said he was waiting for formal requests for aid from the Rural Municipalities of Franklin and de Salaberry, expected in a few days. He said he was ready to petition the federal government for disaster relief.

The premier said that besides being ready to help property owners hit by the tornado, the province may also assist the two rural municipalities with any clean-up costs they have.

TORNADO'S TOLL 3 WITH GIRL'S DEATH

WPG. Free Press MON. JULY 25/77

A tornado that touched down last Monday night in an area about 50 miles south of Winnipeg has claimed a third life.

Tara Grenier of Winnipeg, age 14 months, died last Friday in St. Boniface General Hospital of injuries suffered in the mishap.

Her grandparents, Michael and Katherine Klem of St. Malo, died when the twister picked up their farm house and smashed it down several hundred yards away.

Her mother, Jo-Anne Grenier, who was also in the house at the time, was listed in good condition in hospital Sunday.

The deaths of the Klems and their granddaughter were the first attributed to a tornado in Manitoba in nearly two decades.

The twister also caused property damage officially estimated in the range of $500,000.

The Co-operative Credit Society of Manitoba is offering low-interest loans for repairing the damage.

Premier Ed Schreyer has said the provincial government is ready to share the costs of rebuilding, provided federal or municipal assistance is also forthcoming.

Winnipeg
Free Press
Tues July 19 '77
Storm Date:
Mon. July 18 '77

Twister touches down 50 miles south of city

Wild tornado strikes Rosa, killing two

By BRIAN COLE

ROSA, Man. — Clean up operations were underway today following a tornado which slashed through the area Monday night, killing two people, and causing property damage expected to exceed a million dollars.

Winds that could have reached 200 miles an hour cut a devestating swath through this community, disintegrating buildings and hurling trees hundreds of yards.

Dead are Mike Klem, 72, and his wife Katherine, 57.

'Five minutes of hell'. See page 11.

No way to predict tornados. See page 10.

Reported to be in critical condition in St. Boniface Hospital are Mr. and Mrs. Klem's daughter, Jo-Ann Grenier 22, and her one-year-old daughter Tara Grenier.

The tornado site has not yet been declared a disaster area, deputy EMO director Nils Stavenjord said this morning. This will be up to Finance Minister Saul Miller, who is in charge of EMO, he said.

—Continued

See **TORNADO** page 4



—Photo by Alan MacKenzie

Steve Maksemchuk, a neighbor of Mike and Katie Klem killed Monday evening when a tornado swept through a farming area near Rosa, Man., kneels beside a piece of the couples doorstep, The Klem house had stood behind Maksemchuk. The Klem's daughter and grandchild were injured.

Tornado hits Rosa area killing man and his wife

Stavenjord said the minister and EMO director Jack Miller conferred this morning about the tornado and the EMO director is in the area today assessing damage and meeting with local elected officials.

Authorities combed the debris today looking for others who may have been injured in the twister which destroyed many homes in an around this community of 300 people located about 50 miles south of Winnipeg.

The Klems and the Greniers were in Klem's house when the wild twister struck their house, carrying it several hundred yards from its foundation.

The furious winds, followed by heavy rainfall and hailstones "as big as chicken eggs", leveled the house.

Other homes in the six-mile long, one-mile-wide area the tornado swept through were also flattened.

Witnesses say the wild winds wreaked havoc on dozens of farms, hurled trucks and graders with reckless abandon and ripped strips of asphalt from the highway.

Steel granaries were hurled thousands of yards into fields. Crops were flattened leaving some wheat fields looking like freshly cut lawns.

Power lines were down everywhere.

Manitoba Hydro crews began work at midnight. Power was expected to be restored late this afternoon.

Lorne Vanachte, supervisor of the crews, said he had never seen anything like the storm damage before.

Melvin and Trudy Schlorff couln't believe it when they saw [illegible] St. Malo

CONTINUED

they have worked hard to restore reduced to rubble by the tornado.

"I can't believe it. There was a beautiful grove of about 40 birch trees and a 70-year-old home. The whole thing was just a picture postcard."

The couple had bought the home last October and had worked throughout the winter restoring the old farm-home. The hot water was to be hooked up and they were to move into the home later this week.

The Schlorff's said they received a call from St. Malo last night at the trailer near Lorette, Man. they were using until moving into the St. Malo home. Now they'll have to remain in their trailer.

One farmer's 50 by 28-foot barn was lifted of its foundation and blown away without leaving a trace.

Some sources say hundreds of head of cattle may have to be killed because of serious injuries from the tornado.

One man said he suffered about $10,000 damage — all of it uninsured.

Volunteers guarded various points along the roads surrounding the areas "against looters and cattle rustlers", according to a municipal councillor.

People at the scene of the Klem house said the winds tossed one car into the basement after the house was torn from its foundation.

Another car was smashed by trees that were ripped from the ground and blown across the yard.

Klem's body was found in a nearby bush, one observer said.

"She (Mrs. Klem) was my fourth cousin," Stephen Zaretski, a Franklin municipal councillor, said.

Zaretski's voice echoed in the quiet, hot, humid night — which only hours earlier had been the site of the killer winds.

Looking across the road from Klem's yard at trees littered with debris, including clothes, household items and a bicycle, Zaretski sadly recounted an earlier conversation with Klem.

They were talking about the new road that was scheduled to be built near Klem's home.

"Look that was Saturday — 48 hours," Zaretski said.

As Zaretski continued to describe the incidents leading to the tornado a few feet away a rooster — its feathers plucked by the wind lifted its head defiantly

"Why dosen't someone kill it?!" one man asked quietly.

Zaretski begins:

"It was hot. It was very hot. I thought a tornado might hit. I was in Alberta when one hit," Zaretski said.

"It came from the west. It was about a mile wide in some places."

Another witness said the tornado appeared to come from the northwest.

The men finally agreed the twister cut a winding path six miles long and one mile wide coming from the north west, then, swinging to the southwest. But always moving relentlessly, reducing anything in its way to rubble.

"A half hour before the tornado hit I was talking to Mike Cahout and I told him it looked like a tornado was going to hit. I saw one in Alberta.

"I said, 'Mike get out of here before it strikes.'

"I told my children 'let's jump into the car and go to the (United) States,' but they laughed at me.

"They said it doesn't look like a tornado," Zaretski said.

Cornie Penner's cinder-block garage, wooden barn and greenhouse were reduced to nothing.

His new house was partial[illegible] leaving only one bedroom untouched.

The Penners elected to stay the night in the bedroom.

Speaking through a 10-foot by 15-foot hole that used to be a living room wall, Mrs. Penner described what happened to her home.

"We were having coffee," she said of her and her husband.

"We heard the noises of the winds and headed for a room in the basement. Its got a double wall.

came out and saw what you see now," Mrs. Penner said, standing in a shell of their former home.

The roof was ripped, the windows blown out and living-groom furniture was swept out of the house.

Further down the road the house of a man who had not yet moved in was destroyed.

Fifty-foot high oak and elm trees were lifted and thrown about.

"How do you clean this up," one man asked.

"It will take my lifetime

Mennonites quick to lend a hand

Almost before the debris had settled, a small, all-volunteer army had began to mobilize to help the victims of Monday's tornado in the St. Malo-Rosa area.

The wore no uniforms and carried no flag,, but their reputation preceded them and they were welcomed graciously by those they came to assist.

To one woman, their eventual appearance was an article of faith. "I knew they'd come," she declared.

This unpublicized force is the Mennonite Disaster Service, which has for years been providing aid and comfort with little fanfare at scenes of calamity, whether local, national or international.

Each Mennonite church has a "contact person" assigned to the MDS, explained Jake Poetker, contact man for Arnaud. When disaster strikes, he makes a quick survey of the damge, assesses what help is needed, and calls in help.

Soon after hearing of the tornado, Mr. Poetker toured his community, noting which farms were hard hit. On Tuesday morning he had brought out 50 people to the farm of Cornelius and Anna Penner, which had suffered serious damage.

"If necessary, I could go to the phone now and people would come from all over the country," he said matter-of-factly.

"Our organization operates all over North America. We attend at disaster of any sort. Recently there was a fire where a house burned and two little children were killed. We went over to see if there was anything we could do."

"One man got his arm caught in a bailer and couldn't work. We got 20 trucks out and got his bales in."

The Mennonite Disaster Service in Manitoba has had recent experience in tornado-struck areas, having given assistance in 1975 when a smaller twister touched down near the community of Kane.

On Tuesday, the volunteers swarmed over the Penner farm like



Mennonite Disaster Service workers clean up and salvage everything the tornado left.

ants on an anthill, each with his or her assigned task. They came with trucks and a front-end loader for the heavy work and with high spirits and willing hands.

The night before, they had boarded up the windows so that Mrs. Penner could clean up inside the shell of her home. This morning they came back in force, and no one stood idle.

The scattered lumber which had been the barn was collected for burning. The vegetables torn up out of the ground by the tornado were cleaned and stored. The glass of the destroyed greenhouse was collected, and the cinder blocks that had been the garage were neatly piled. The dead cows were buried.

The grain, spilled when the wind whisked away three 20-foot bins and smashed open the fourth, was collected and cleaned.

And always, whatever was salvageable, even a small, muddy birdhouse, was gently set aside for the Penners.

When reports of looting in the stricken area came in, Mr. Poetker said in his quiet way "Those guys should come here and put a little muscle to work."

At one point, five Mennonite men from Steinbach walked up to Mr. Poetker. Looking like identical twins with their long, pointed beards, each carried a crowbar in one hand and a hammer in the other.

"Is there anything we can do," they said. With a glance at their tools, Mr. Poetker explained that eventually there would be grain binns to build, but that at present everyone was just cleaning up the debris.

Without more discussion the five set aside their tools and went over to pitch in.

Taking a brief break, Mr. Poetker said that he had been so busy he didn't even know how much damage the storm had done to the crops on his own land.

But before he could give it much thought, he was up and collecting trucks, and men to go to a farm house farther up the road.

"The house was flattened by the tornado," he said. "The people had gone into Winnipeg that night, but now they could use help to get at the stuff buried underneath."

Winnipeg Tribune: Thurs. July 21 '77

Premier promises tornado aid

By Jenni Mortin
Legislature Reporter

Premier Ed Schreyer flew back from the tornado-hit St. Malo-Rosa area Wednesday with promises of provincial help for those who suffered, if Ottawa or the local municipality also chip in.

"One way or another," the province is ready to share half the costs of restoring homes and property to pre-disaster conditions, Mr. Schreyer said just after he stepped out of an EMO helicopter near the Winnipeg Mint.

But its help will be contingent on federal or municipal involvement.

It may also be willing to reimburse the two municipalities involved, Franklin and de Salaberry, for their "extraordinary out-of-pocket expenditures," for clean-up staff and machinery, and for staff to handle the crowds, the premier said.

Warning system planned: Page 6

A 10-square-mile area of the two municipalities was intensively damaged Monday night by the mile-wide swath of a tornado which killed two people and injured two more.

"In my opinion, federal-provincial aid is justified," Mr. Schreyer said after a two-hour late afternoon visit to the disaster area, where he talked with municipal officials.

He expects to get formal requests for help from the two municipalities within the next three days.

He is ready to make a case to Ottawa for implementation of the federal-provincial disaster fund, he said, hoping a loophole can be found in its regulations against compensation for damages which could be recovered through a lawsuit, or are insurable.

He has already been talking to an Ottawa official about bringing the disaster fund into play, he said.

The first step is to get a formal estimate of the damage, he said.



Pitching in to clean up a farm hit by Monday's tornado.

Tornado-area residents deserve bouquets: EMO

The director of the Emergency Measures Organization offered praise Wednesday for the residents of the tornado-stricken parts of southern Manitoba.

"I personally feel these residents should be given a big bouquet of congratulations for the way they stopped their own work to help each other out," Jack Miller said Wednesday.

"Lots of people came out from Winnipeg, third and fourth cousins gave up a day of work to come out and help."

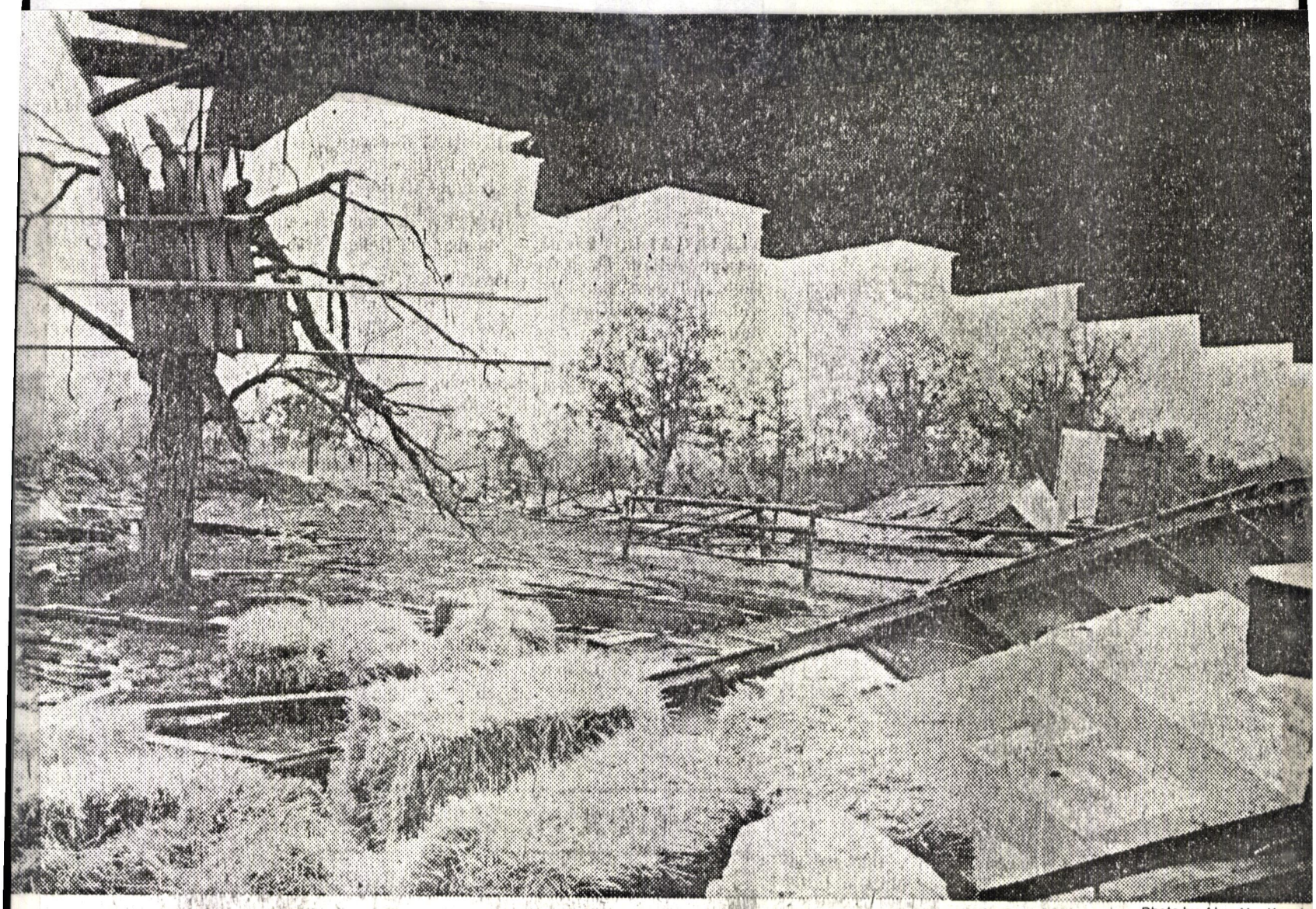
"Those people have gone through a lot and many are still in shock. But they've taken it well and they deserve congratulations."

Mr. Miller compared the attitude of the people in the tornado-hit area with that of people in flood areas in past years. "When we had the floods, the first thing they said was 'what are you going to do to help us.' These people helped themselves and when you spoke with them they were more worried about each other, asking how's Walter down the road and so on."

Emerson RCMP, who have patrolled the district in the wake of the tornado agreed.

There were many rumors Tuesday about looting, but none of them proved to have any basis, said an RCMP spokesman.

Winnipeg Free Press : Tues July 19 77



—Photo by Alan MacKenzie

im Walters' barn was heavily damaged in Monday's tornado that wept through a farming area near Rosa, Man. This photo was taken from inside the barn looking out over his property. A portion of the wall can be seen wedged in the tree.

No way to predict tornado: weatherman

Jay Anderson, public forecaster for the Winnipeg weather office, said Tuesday that residents of Rosa, Man., were not given advance warning of a tornado that swept through the town Monday night and killed two people.

"We didn't know there was a tornado until after it occurred," he said.

Anderson said a severe thunderstorm warning distributed about 7 p.m. Monday "is the best we can expect." The tornado touched down in the southern Manitoba community about 8 p.m.

Anderson said it is impossible to predict the possibility of tornado with radar equipment alone.

He said that in areas in the United States prone to tornados, such as North Dakota, a network of volunteers watches for twisters and report to local weather offices. No such network exists in Canada, he said.

He stopped short of advocating a tornado watch system similar to the U.S. because of the expense involved and the relative infrequency of tornados in the province.

"In North Dakota, they average about six tornados a year, and here we get one. Most probably some kind of cost-effectiveness would have to be undertaken. But as a forecaster, I would dearly love to see people telephone us when they see a tornado and let us know so we can advise the public."

However, Anderson added: "All things considered, yesterday's warning was the best possible. They couldn't do any better in the U.S. or Canada."

Anderson said southern Manitoba is more susceptible to tornados than other part of the province. He said the hot and humid summer weather in the area makes it ideal for twisters.

"The closer you get to North Dakota, the better chance there is for a tornado," he said.

Monday's tornado was the worst to strike the area since July 17, 1958, when a twister struck the nearby town of Vita twice in one day.

The tornado picked up seven freight cars and hurled them down an embankment. It lifted a farmer's car, whirled it around and dumped it right-side up in the opposite direction it had been travelling.

The death of a Port Arthur man was blamed on the twister. His car went out of control and crashed into a ditch.

Another tornado hit the town June 18, 1955. The storm injured 30 people and caused thousands of dollars in property damage.

The 1955 storm struck about 4:15 p.m. as most townspeople were watching a baseball game. Rain and hail forced cancellation of the game with Vita leading, and the hail was generally credited with saving lives because it forced more people indoors.

The town's hospital and collegiate were destroyed by the force of the winds. Two-by-fours, torn from houses and buildings, were pounded like nails in a church that withstood the winds.

Winnipeg Tribune, Wed July 21 '77

Damage survey begins after killer tornado

Provincial officials are expected to consider their options today in financing relief operations in the areas hit Monday by a tornado.

Officials of the Emergency Measures Organization and the RCMP were to report today their estimates of the tornado damage based on an inspection tour by helicopter of the area.

Among the alternatives to be considered is implementation of a federal-provincial cost-sharing disaster relief agreement, which comes into effect if the damage is sufficiently high.

Jack Miller, EMO director, said Tuesday following the helicopter survey that the tornade cut a swath varying from 3/4 of a mile to 1-1/2 miles wide over a 35-square-mile area.

Several homes were ruined and many others had noticeable damage. Municipal officials estimated damage at $500,000.

Two people were killed when their home was picked up and dashed to the earth a hundred yards away. Dead are Michael Klem, 72, and his wife, Katherine, 58, of St. Malo.

Also in the house were the Klems' daughter and granddaughter, both of whom were injured. Joanne Grenier, 22, of Winnipeg, is in fair condition at St. Boniface Hospital. Her daughter, Tara, 14 months, remains in guarded condition at the same hospital.

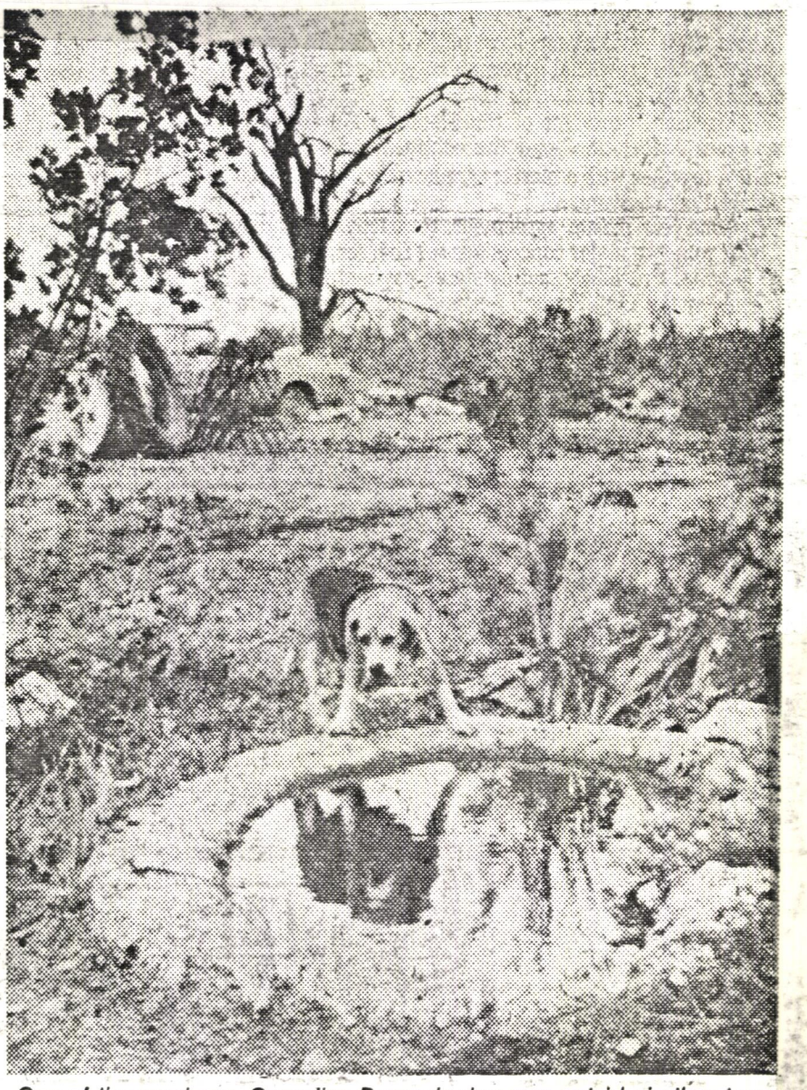
Neighbors said they understood that Mrs. Grenier was visiting with Mr. and Mrs. Klem when the tornado struck.

There were unconfirmed reports in the St. Malo-Rosa district of widespread looting as the clean-up began.

At the Klem farm, about 40 family members gathered to pick up the debris scattered over the farm and to collect the couple's belongings.

Elsewhere, small groups of friends and relatives had congregated at almost every stricken farm to help. Dead cows and horses were being buried, fences repaired, barn roofs rebuilt. Felled trees were being cut up and scattered hay was being collected.

Telephone and hydro crews were everywhere trying to restore service, as miles of wires and poles had been downed by the twister.



One of the survivors. Cornelius Penner's dog was outside in the storm.

'Like flights of planes'

The killer tornado which struck southern Manitoba Monday has served as a grim reminder that although uncommon, tornadoes can and do occur on the Canadian Prairies.

They can occur any time from March to December, and usually strike during the late afternoon or early evening.

Tornado weather is characterized by hot, humid days with southerly winds and threatening cloud formations. When a tornado forms, it usually travels in an easterly direction at 25 to 40 miles an hour. It usually travels for a distance of 10 to 40 miles, with an average path width of about 250 yards.

Because winds within a tornado can be as high as 500 miles an hour, the storm is usually audible for several miles. Close at hand it sounds like flights of planes.

In the event of a tornado, there are a number of basic precautions.

The safest place of refuge during a tornado is in a storm or vegetable cellar or in a basement corner nearest the approaching tornado (usually the southwest corner).

If no basement or cellar is available, crawl under a peice of heavy furniture located near the centre of the house.

In order to equalize pressure, the windows on the side of the house away from the approaching storm should be opened.

People caught outside in the open should lie flat in the nearest depression — a ditch, ravine, or culvert — and stay down until danger from flying debris has passed.

Stories:
George Jacub, Murray McNeill and Susan Ruttan

Photos:
Jon Thordarson and Frank Chalmers

The Tribune - Wed July 20 '77



Shattered buildings and trees broken like match sticks show the path of the tornado.

Winnipeg Free Press. Wed July 20 77

Storm Date: Mon. July 18 77

Twister havoc cost $1m

By JIM HAGGARTY

ROSA, Man. — Damage estimates were as high as $1 million Tuesday in the aftermath of the tornado that ripped through here Monday night.

Coun. Stephen Zaretski of the Rural Municipality of Franklin, who made the $1 million estimate, said the government should immediately classify the 35 or so square miles hit by the tornado a disaster area.

More stories, photos on page 6

Other municipal officials put the damage at about $500,000, an Emergency Measures Organization (EMO) official said after touring the area.

Bodies of dead horses, cattle and chickens littered the countryside around Rosa and St. Malo after the tornado, which killed two people and seriously injured two others.

Winds, which may have been as high as 200 miles an hour, ripped out 20 hydro poles in a 1½-mile stretch, threw granaries thousands of yards and left much of the area levelled.

EMO director Jack Miller said he has a meeting early today with Finance Minister Saul Miller of Manitoba, minister in charge of EMO, to discuss the damage.

Shortly after viewing the area Tuesday by helicoptor, the EMO director said, "Most of the damage is in the timber, but there are cattle and horses that we've seen that are still lying in the fields, and there are about four houses that have been completely devastated.

"The biggest thing, I think, is the hay that has been piled

—Continued
See TWISTER, page 4

Twister cost: $1m

CONTINUED

up since last fall strewn all over the farmers' fields. One lad lost his complete irrigation system, his pipes were strewn all over his fields.

"It has really caused a lot of havoc. It's the worst (damage caused by wind) I've seen in Manitoba.

"It lifted a house, and while the house was in motion lifted a car that was parked beside that house and put it in the basement. That's what happened right here," Miller said as he stood in the yard of the two people killed in the storm, Mike Klem, 72, and his wife Katherine, 57.

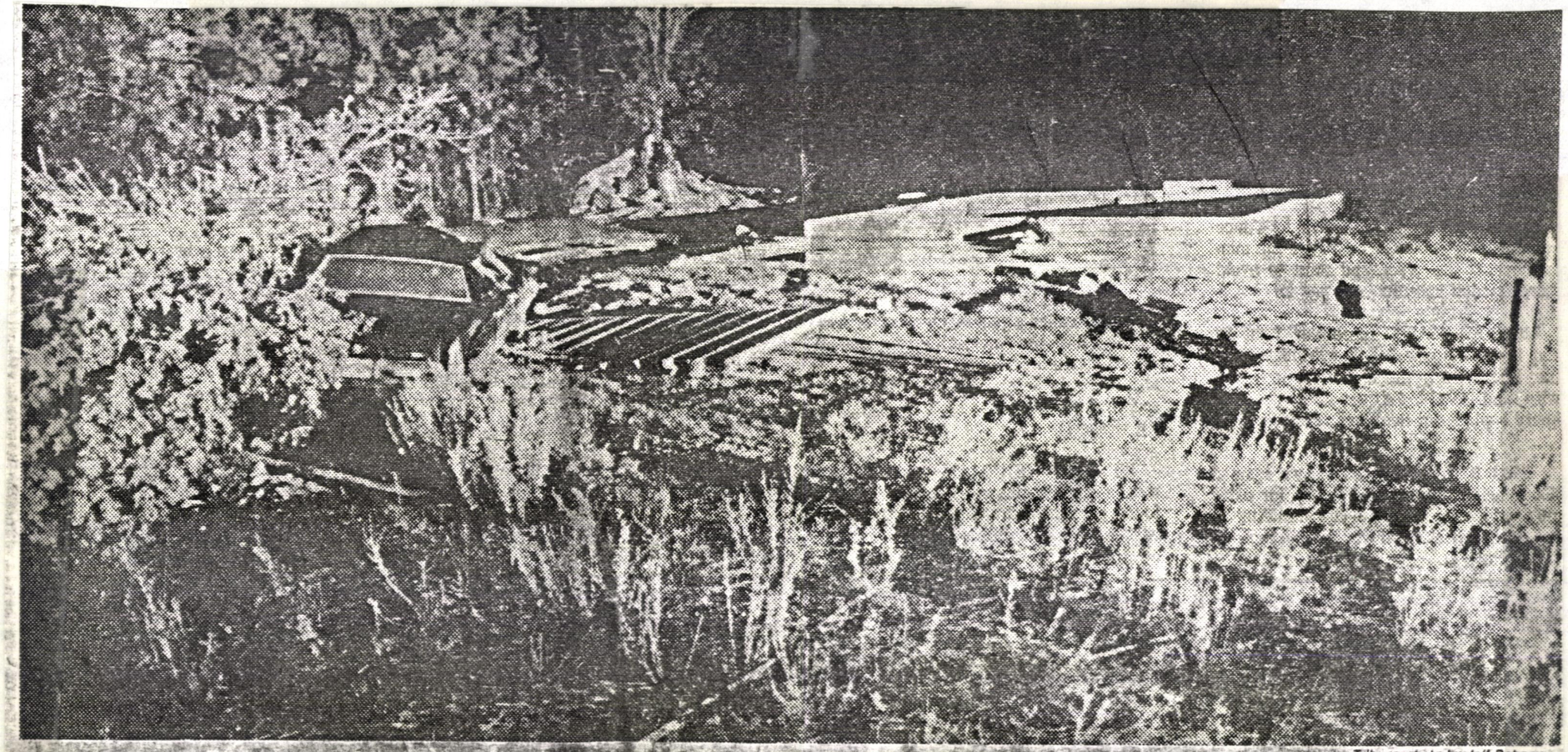
He added, "the Mennonite Disaster group is here now; they're marvellous people who come in and help.

Neighbors are going out to help people hit by the tornado. Throughout the area, pickup trucks and cars line the roadways wherever the storm hit.



—Photo by Jim Haggarth

The remains of Melvin and Trudy Schlorff's tornado-damaged home near Rosa, Man.



The basement and some broken wood was all that remained of the house where the tornado touched down, killing the Klems.

Tribune photo by Jeff Debooy

Weather office warned of thunderstorm 'risk'

No warning of a possible tornado was issued by the weather office Monday evening, officials said.

Forecaster Vern Dingle, at the Winnipeg weather office, said a warning of "a risk of a severe thunderstorm" was sent out to radio and television stations at 7:00 p.m., about one-half hour after it was discovered a thunderstorm was forming.

All media were issued the warning by 7:30 p.m. Mr. Dingle said. Aircraft were sent a bulletin as well, he said.

"We don't forecast tornadoes. People would not know what to do other than what they do for thunderstorms," said Michael Balshaw, an Environment Canada official.

"Our policy is that without confirmation of a tornado occurring, we would not normally mention a tornado in the forecast.

"The reason for that is that it is a relatively rare event, that affects a small area . . . and it is virtually impossible to pinpoint."

Mr. Balshaw said there are an average of six tornado-like storms per year. He said he could not predict how likely a recurrence is within the next two weeks.

"It's virtually impossible to forecast an actual tornade event. We can forecast severe thunderstorms, and the possibility of hail or high winds. Then we really have to wait.

Mr. Balshaw said the weather office "does not have the observation network" to find out where tornadoes occur.

"In the future, with a little more resources, we can improve slightly on homing in on areas."

He said the weather office is investigating getting information from the RCMP on where tornadoes are spotted. He said the communications network has been under investigation for the past two months, but may not be put into effect until next year.

"We hope it will come to fruition within the next few months," he said.

Tornado-watchers in U.S. save lives

By BILL HOLDEN

Winnipeg Free Press
Wed. July 20 '77

An official with the United States national weather service in Bismarck, N.D., expressed surprise Tuesday over the absence of a system of volunteer spotters in Manitoba to watch for tornadoes and other potentially dangerous weather.

"There's absolutely no doubt in my mind that our system of tornado watching has saved lives," said Ken Seal, deputy director of operations for the service.

A twister killed two people and sent two others to hospital when it touched down without warning Monday night in Rosa, Man.

North Dakota and other states forced to contend with frequent tornadoes employ a network relying on co-operation of police, civil defence, weather officials, volunteer workers and other agencies to watch for twisters.

Casualties cut

"During the last 20 years, the number of deaths and injuries has decreased by roughly one-half," Seal said, "even though the number of tornadoes has not changed.

"It takes a lot of effort to co-ordinate the system but it's worth it."

The weather service keeps a detailed record of tornadoes in the state; including their frequency, and where and at what time of day they will probably occur.

"Statistics are a major part of the effort," he said. "You can't prepare for something if you don't know anything about it."

Seal said 17 people were killed and 190 injured in 331 tornadoes reported between 1950 and 1975. There were no deaths in 1975.

Although no such network exists at present in Manitoba, a system patterned on the U.S. organization is being planned.

Nels Stavenjord, deputy director of the Manitoba Emergency Measures Organization, said preparation began this summer. He said he hopes the system will be in operation in time for bad winter weather.

Stavenjord said it would have been impossible to warn Rosa residents of Monday's tornado even with a volunteer watching system.

"From what I can gather from the weather people, it just appeared out of the blue from a big black cloud. Then it just dissipated. I don't see how people could have been warned."

Numbers conflict

Stavenjord said the Manitoba system will rely extensively on RCMP communciations. It will also include government agencies, weather offices and volunteer workers.

He said the network is necessary because of what appears to be an increase in tornadoes frequency in Manitoba, but a Winnipeg weather office official said twisters have probably not increased but are merely receiving more attention.

The weather office said a conservative estimate would be six tornadoes in the province a year.

In North Dakota, which ranks 19th in the U.S. in the number of tornadoes, up to 500 people are involved in watching for twisters.

Seal said each county has a co-ordinating officer organizing volunteers. When the weather office spots suspicious clouds, it contacts the co-ordinator, who in turn disperses spotters to the location.

Volunteers relay their findings to co-ordination officers or police. If there is a potential for a twister, the weather office issues a tornado watch to be broadcast by television and radio stations.

The weather bureau distributes a tornado warning when a twister is sighted in the atmosphere or touches down.

Seal said the success of each county network depends on the community.

"With a good spotter network you get less injuries. Fewer people are killed by tornadoes in North Dakota each year. The key to the whole thing is to have a good system of weather watchers."

Winnipeg Free Press
Wed. July 20 '77



No disaster request received

By PAUL WHITELAW
Staff Correspondent

OTTAWA — Prime Minister Trudeau said Tuesday he had received no request from the Manitoba government to declare a southeastern area of the province struck by a tornado this week a disaster area.

Replying to a question from Manitoba MP Jake Epp (PC—Provencher), the PM noted a request for special federal-provicial disaster assistance "would normally come to the (federal) minister of finance or from the premier to myself.

"I have had none, and I do not think the minister of finance has had any either."

Asked by Epp whether the Canadian wheat board would grant special permits that would allow farmers affected by the tornado to deliver grain to elevators to avoid imminent spoilage, Transport Minister Otto Lang promised to "discuss" the matter.

Lang, who is responsible for the wheat board, said that marketing agency "does attempt to respond to problems of this specific nature" but also must consider "its shipping obligations."

"I will see if the two cannot be accommodated at this time."

Early-warning system planned

An early-warning tornado watch system should be working in Manitoba by the end of the year, EMO director Jack Miller said Wednesday.

As trained observers noticed the signs of an impending tornado in their area, they would immediately phone their neighbors, municipal officials, the RCMP, and the news media to get the message across as quickly as possible.

The system has been researched for more than a year, Mr. Miller said, and EMO has built up a library of books and publications on tornados, windstorms, wind heating, and other relevant topics.

"We've already made up prototypes of pamphlets we will be handing out, and we'll have speakers talk to groups in municipalities at night about what they can do," Mr. Miller said.

"It's going to be neighbor helping neighbor, because as the tornado Monday showed us, they form too rapidly for the weather office to be able to get out adequate notice the way things stand now."

GENERAL HIGHWAY MAP
R.M. OF FRANKLIN
PROVINCE OF MANITOBA

R.M. OF MONTCALM

MUNICIPALITY OF DE SALABERRY

MUNICIPALITY OF MONTCALM

L.G.D. OF STUARTBURN

MINNESOTA (U.S.A.)

R.2E. R.3E. R.4E. R.5E.

TP. 3 TP. 2 TP. 1

Arnaud Carlowrie New Rosa Rosa Senkiw Roseau River Tolstoi Overstoneville Ridgeville Fredensthal Stockport EMERSON Green Ridge Woodmore Dominion City

ROSEAU RIVER I.R. NO. 2 I.R. NO. 2A ROSEAU RAPIDS

RAT RIVER ROSEAU RIVER JORDAN N. BRANCH JORDAN R. VITA DRAIN STEWART DRAIN MAIN DRAIN MARLOW DRAIN CASSON DRAIN KIRKPATRICK SWAMP MOSQUITO CREEK

C.P.R. C.N.R. Trans-Canada Pipeline Gas Pipeline Western Plains Gas Pipeline

ST. AGATHE PARISH ST. JOE

RESERVOIR DAM DYKE DITCH CUSTOMS

LEGEND

ROADS
- Divided Highway
- Provincial Trunk Highway (13)
- Provincial Road (216)
- Unnumbered Provincial Road (R)
- Concrete Surface (Concrete)
- Bituminous Surface
- Asphalt Surface Treatment
- Gravel Road
- Improved Earth Road
- Unimproved Earth Road

RAILWAYS
- Multiple Track (Station)
- Single Track (Siding)
- Bridge, Overpass or Underpass

BOUNDARIES
- Indian Reserve, Forest Reserve, or Provincial Park
- Provincial
- City or Town
- Township or Parish
- Lot or Section Line

DRAINAGE
- River (Ferry, Dam)
- Stream or Creek
- Stream or Creek, intermittent
- Intermittent Lake
- Marsh or Swamp
- Ditch, Drain (Ditch)
- Dyke

OTHER
- Electric Power Line
- Telephone Line
- Pipelines, (Gas, Oil)

- House
- Farm Building (occupied ■, vacant □)
- Factory or Industrial Plant
- Store or Small Business
- School
- Church
- Post Office
- Town Hall or Community Centre
- Public Building, Mun. Garage, etc.
- Grain Elevator
- Summer Cottage
- Motel
- Theatre
- Hospital
- Power Plant (Steam ■, Hydro □)
- Hydro Substation
- Telephone Substation
- Park or Playground
- Cemetery
- Microwave Tower
- Television Tower
- Water Tower
- Radio Tower
- Forest Lookout Tower
- Race Track
- Gravel Pit
- Quarry
- Airport or Airfield
- Curling Rink
- Service Station
- Golf or Country Club
- Oil Wells
- Gas Wells
- Historic Site
- Fish Hatchery
- Picnic or Camp Site

N

1000 500 0 1000 2000 3000 4000 5000 6000 7000 METRES

1 0 1 2 3 4 5 MILES

KEY MAP

PATH OF 1977 TORNADO

MANITOBA FLOOD DISASTER ASSISTANCE BOARD

NOTE: INVENTORY COMPLETED IN ALL TOWNSHIPS (1978)

Prepared by the
DEPARTMENT OF HIGHWAYS
PLANNING & DESIGN OFFICE
WINNIPEG
1980

Revised by	Date	Checked

R.M. of FRANKLIN
DISTRICT 2
SHEET 1 OF 1 NO. 32