0998103

TORNADO PROJECT SUMMARY SHEET

F-0 ALTA

1. DATE AND TIME July 13, 1981 17:00 MDT

2. LOCATION OR PATH (attach map)

Winterburn (Western edge of Edmonton)

3. PATH LENGTH [✓] NOT KNOWN [ ] <1 mi; [ ] 1-4mi; [ ] 5-10mi; [ ] 11-50mi; [ ] LENGT IF>5(

4. PATH WIDTH Unknown 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;

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.)

10. TOTAL DAMAGE ESTIMATE $ Unknown 11. TOTAL DEATHS none

12. TOTAL INJURED none 13. TOTAL HOMELESS none

14. LIST ALL REFERENCES

① Climatic Perspectives (Vol. 3 No. 28) July 7 to July 13, 1981
② Edmonton Weather Office Report
③ Edmonton Journal, Alta, July 14, 1981

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

(b) Damage limited to two farms.

(a) Funnel observed from Edmonton Intl Airport

(a) Funnel photographed by Tom Starko

T.D. 1232 1875

5935 625

500 0

Tornado, July 13, 1981 ALTA

with Castlegar recording 37.6 mm.

Heavy thunderstorms occurred in some northeastern areas on July 13th. Funnel clouds were reported at Fort St. John and a plane crash was attributed to the thunderstorms.

Hay is rotting in the fields in some southern areas. Many fruit tree diseases are in evidence and there will be few appricots this year.

PRAIRIE PROVINCES

The week began and ended with a barrage of thunderstorms. A tornado touched down in Winterburn on the western edge of Edmonton on the 13th but damage was limited to two farms. Precipitation totaled 48.9 mm at Fort McMurray and 47.4 mm at Uranium City.

Cool weather invaded Alberta and western Saskatchewan and pushed mean temperatures almost 6° below those of the preceeding week. Warm weather remained in the rest of Saskatchewan and in Manitoba. The mercury reached 37° at Estevan.

Although mean temperatures may be below normal it is the sun that predominates and crops are reported to be doing well. The Peace River area is still short of moisture but crops in southern Alberta are doing exceptionally well.

ONTARIO

Hot, hazy and humid conditions prevailed across Ontario this week as July continued its near perfect vacation weather. In northern Ontario, Kapuskasing soared to 34° on the 7th breaking the old record of 32° set in 1936.

Precipitation totals exceeded normal at only three stations. Trout Lake led with 29.4 mm.

Vegetable and fruit crops are doing very well although the heat and humidity caused some problems with apple scab. The forest fire situation has quickly gone from a low hazard rating to a high hazard one. Sixty-four fires were burning at week's end as thunderstorm activity during the hot yet mainly dry week in northwestern regions has created the worst picture in many weeks.

QUÉBEC

Precipitation was light but showers and thundershowers touched all regions. Funnel clouds were sighted in the Saint-Lawrence south of Baie-Comeau. Hail was reported in the Sherbrooke region on the 13th; precipitation of more than 40 mm on the same day at Sherbrooke and at Vald'or pushed the weekly accumulations to 61.7 mm and 51.4 mm respectively.

The airmass cooled in the northeast of the province resulting in below normal mean temperatures. Mean temperatures over most of the province were more than 3° above normal. The mercury reached 34° at Maniwaki.

ATLANTIC PROVINCES

Heavy thunderstorms struck southeastern New Brunswick on July 8th and there were unconfirmed reports of Tornadoes. Most damage was limited to a wooded area which was cleared by the storms. Precipitation was light over most of the Maritimes but weekly totals were much above normal in southern Newfoundland. Argentia reported 79 mm.

Mean temperatures were below normal over most of Newfoundland. The mercury fell to 3° at Hopedale and Cartwright on July 9th and 13th respectively. The airmass over most of the Maritimes remained warm and Fredricton reached 33° on July 8th.

Newfoundland is starting its first hay cut but the cool wet weather has forced farmers to wait for drier conditions.

Climatic Perspectives (Vol. 3 No 28)
July 7 to July 13, 1981

FUNNEL CLD, ALTA, JULY 13-14

Environment Canada / Service de l'environnement atmosphérique

SURFACE WEATHER RECORD

AT EDMONTON MUNICIPAL "A" (YXD) PROVINCE ALTA FROM 0601 13 JULY 1981 TO 0600 14 JULY 1981 LST = GMT − 7 HOURS

STATION NAME AS IN METSTAT — HOUR (GMT) DAY MONTH — HOUR (GMT) DAY MONTH

CKED, CERTIFIED OMPLETE AND ORRECT BY

OBSERVED DATA AND COMPUTATIONS

NOTES AND RUMENT DEFECTS AND CHANGES

7 MAX FM 087 D6:

7 MIN FM 0(0-12)Z D.B.

PK WND 22517Z

AX NOT RESET JULY 13/0600Z

II HOURLY OBSERVATIONS

23 Corrected Wet-Bulb °C	24 Relative Humidity %	25 Total Opacity	26 Total Amount	27 Type	28 Date (GMT)	29 Hour (GMT)	30 Sky Condition	31 Visibility	32 Weather and Obstructions to Vision	33 Sea-level Pressure	34 Dry-Bulb Temperature °C	35 Dew-Point Temperature °C	36 Wind Direction	37 Wind Speed	38 Wind Character	39 Altimeter Setting (in.)	40 Clouds and/or Obscuring Phenomena Type/Opacity	41 Remarks		42 Tendency	43 Observer (Print)
9369										147	19.2	9.0	WIND			AT 0627 998	CLOUDS and/or OBSCURING PHENOMENA	REMARKS			
537.0	59	1	2	SA	13	0700	250 SCT	15+		148	17.5 / 10.0		23	01		998	CU	SC12	(77.8)		RS
537.2	68	1	2	SA	13	0800	250 SCT	15		150	16.2 / 10.8		31	01		998	CU	2812			RS
537.1	67	1	2	SA	(3)	0900	100 SCT 250 SCT	15+		150 TR	15 / 14.6 / 9.2		10	03		998	AC1CU	6212	(77.5)	003	RS
536.8	77	2	7	SA	13	1000	100 SCT 250 BKN	15+		147	14 / 14.4 / 10	10.3	00	00		997	AC1CU2	4327			RS
536.4	77	6	8	SA	13	1100	100 SCT 150 SCT E250 BKN	15+		143	15 / 14.6 / 11	10.7	36	01		996	AC1AC2CU3	5768			RS
536.1	77	8	9	SA	13	1200	150 BKN E250 BKN	15+		138	14 / 14.4 / 10	9.8	03	01		995	AC5CU3	4889	(77.7)	610	RS
536.1	72	9	9	SA	13	1300	100 SCT E150 BKN 250 BKN	15+		138	15 / 14.8 / 10	10.1	05	01		995	AC2AC6CU1	8199 TCU TOPS HRZN NNW			RS
536.1	72	8	9	SA	(3)	1400	100 SCT E140 BKN	15+		138	16 / 15.6 / 11 / 12.7		33	01		995	AC1AC7	6089			RS
536.6	72	8	9	SA	13	1500	100 SCT E140 BKN 280 BKN	8		145	17 / 16.5 / 12	11.5	23	05		996	AC1AC6CU1	5589 KM VIRGA	(77.9)	305	HS
536.2	59	8	10	SA	13	1600	80 SCT E120 BKN 280 OVC	12		141	18 / 18.1	12	10.3	33	04	995	AC4AC3CU1	1388X VIRGA			HS
535.3	73	7	9	SA	13	1700	80 SCT 120 SCT E 280 BKN	15		132	19 / 17.0 / 14	13.6	02	07		993	ACC3AC2CU2	0679 VIRGA			HS
535.5	53	6	8	SA	13	1800	80 SCT 120 SCT E280 BKN	15		130	22 / 22.4 / 12	12.0	35	05		993	ACC1AC3CU2	2068	(77.5)	511	HS
535.3	47	6	8	CK	13	1850	80 SCT 120 SCT E280 BKN	15		128	24 / 23.6	12	12.3	05	07	993	ACC1AC3CU2	~~FUNNEL CLOUD~~ (ACFT ACCIDENT)			HS
535.3	47	6	8	SA	13	1900	80 SCT 120 SCT E280 BKN	15		128	24 / 23.6	12	12.3	05	07	993	ACC1AC3CU2	6368			HS
535.2	47	7	9	SA	13	2000	80 SCT 100 BKN E 280 BKN	15		127	24 / 24.0	12	12.2	07	03	992	ACC1AC4CU2	0279			HS
535.3	50	7	9	SA	13	2100	E90 BKN 280 BKN	15		130	25 / 24.0	13	12.7	33	02	993	AC6CU1	6779 ACC ASCTD	(77.7)	502	HS
535.2	57	7	9	SA	13	2200	50 SCT E100 BKN 280 BKN	15		129	24 / 24.1	15	14.6	02	05	992	TCU4AC2CU1	1679 SHWRS S-SW ACC ASCTD			HS
	99			SP	13	2257	E50 BKN 100 BKN 280 BKN	15	FUNNEL CLOUD					15	09		CB7ACIC51	FUNNEL CLOUD DUE WEST - NOT TOUCHING GRND			C
9355	47	9	9	RS	13	2300	E50 BKN 100 BKN	15	T	132	23 / 22.6	11 / 10.8		15	14	620	993	CB7AC2	6899 SHWRS ALCDS, FUNNEL CLOUD NO MAMMATUS SE, LONGER VSBL TOWER W			C
935.1	50	9	9	RS	14	0000	50 SCT E90 BKN	15+		131	22 / 22.3	11 / 11.1		16	04		992	CB5AC4	3199 SHWRS IN NE QUAD, VIRGA S	(78.0)	602	C
9352	53	9	9	SA	14	0100	E50 BKN 90 BKN	15+		132	21 / 20.5	11 / 11.3		12	12		992	SC7AC2	5399 CB EMBDD, SHWRS NE, VIRGA ESW ACC ASCTD			C
9349	53	9	9	SA	14	0200	E50 BKN 90 BKN	15+		129	20 / 19.6	10 / 10.3		06	08		991	SC6AC3	6399 CB EMBDD/SHWRS NE, VIRGA ESW			C
934.6	60	8	9	SA	14	0300	E90 BKN 270 BKN	15+		126	19 / 19.4	11 / 10.6		07	06		990	ACC6CU2	4689 CB TP/SHWRS NE, OCNL VIRGA	(78.0)	805	C
934.6	68	7	9	SA	14	0400	100 SCT E 270 BKN	15+		126	18 / 17.9	12 / 11.7		36	04		990	ACC5CU2	9779 OCNL VIRGA			C
934.8	82	8	10	SA	14	0500	E 100 BKN 270 OVC	15+		128	16 / 16.4	13 / 12.6		06	03		991	ACC6CU2	468X VIRGA			C
935.0	77	8	10	SA	14	0600	E90 BKN 270 OVC	15+		128	17 / 16.5	13 / 13.0		03	04		991	ACC1CU2	508X VIRGA H	(77.8)	304	C

Duration of Weather and/or Obstruction to Vision (GMT)

Type 2	Bgn 3	End 4	Type 2	Bgn 3	End 4
W	1640	1655			
-	2258	2345			

III CODED SYNOPTIC REPORTS

Day (GMT)	HOUR	Iliii 26	N dd ff 31 32 2-4	VV ww W 33 34	PPP TT	$N_h C_L h_C C_M C_H$	$T_d T_d$ app 35 42	(99 ppp)	$6P_0P_0P_0P_0$ 20	7 RR R_{ts} 12 3 4 14	$8\,N_s C_h h_s h_s$	$8\,N_s C_h h_s h_s$	$8\,N_s C_h h_s h_s$	$9\,S_p S_p s_p s_p$	$^{2}R_{24}R_{24}R_{24}R_{24}$ 13	$4\,T_x T_x T_n T_n$ 6
13	09										8	8	8	9		(24) 12
	12	71879	70202	74021	13814	60972	10610		69361	7	8	8	8	9	2	4 2614
	15										8	8	8	9		12 24
	18	71879	63505	74028	13022	30881	12511		69355	79720	8	8	8	9	2	4 2414
	21										8	8	8	9		12 18
14	00	71879	71604	74292	13122	59770	11602		69351	7	8	8	8	9 --	2	4 2714
	03										8	8	8	9		24 24
	06	71879	80304	74142	12817	50983	13304		69350	7	8	8	8	98062	2	4 2714

HOUR (GMT)	Corrected Maximum TENTHS 5	T_xT_x 6	Corrected Minimum TENTHS 7	T_nT_n 8	Snowfall cm & TENTHS 9	Water equivalent mm & 10 TENTHS 10	Rainfall mm & TENTHS 11	Total Precipitation mm & TENTHS 12	24-hour Precipitation mm & TENTHS 13	Depth Snow on Ground WHOLE cm 14
12	(27.7)	(24) 28	(15.3)	12 14	0	0	0	0	0	0
18	24.0	12 24	14.4	24 14	0	0	TR	TR	TR	0
00	26.6	12 27	22.1	18 14	0	0	0	0	TR	0
06	22.7	24 27	(17.5)	24 14	0	0	0	0	TR	0
24-HR.	26.6		14.4		0	0	TR	TR		

TIME (GMT)	0900	1200	1500	1800	2100	0000	0300	0600
15 Sum (T_{-12} + To)	402	401	399	414	392	367	359	387
16 Mean (Sum ÷ 2)	20.1	20.1	20.0	20.7	19.6	18.4	18.0	19.4
17 Attached Thermometer	76	73	72	73	76	75	73	71
18 Barometer as read	940.5	939.2	939.6	938.6	938.7	938.4	937.7	937.9
19 Total Correction	-3.4	-3.1	-3.0	-3.1	-3.4	-3.3	-3.1	-2.9
20 Station Pressure	937.1	936.1	936.6	935.5	935.3	935.1	934.6	935.0

IV SUMMARY FOR THE CLIMATOLOGICAL DAY ENDING AT 0600 GMT

Day (2 figures)	TEMPERATURE Maximum TENTHS	TEMPERATURE Minimum TENTHS	REL. HUMID:TY Maximum	REL. HUMID:TY Minimum	AMOUNT OF PRECIPITATION 6-HOUR TOTAL AMOUNT 1200Z mm & TENTHS	1800Z mm & TENTHS	0000Z mm & TENTHS	0600Z mm & TENTHS	24-HOUR AMOUNT Rainfall (R,RW,L, ZR,ZL,A) mm & TENTHS 58	Snowfall (S,SW,IP, IPW,SP SG,IC) cm & TENTHS 54	Total Precip. mm & TENTHS 55	DEPTH* of snow on the ground at 12Z WHOLE cm 56	DAY WITH Thunderstorms 57	Freezing Rain or Freezing Drizzle 58	Hail 59	Fog, Ice Fog (vsby less than 5/8 mi) 60	Vsby 6 mi or less: Smoke, Dust Haze or Haze 61	Blowing Dust, Blowing Sand 62	Blowing Snow 63	MEAN WIND OF 28 or more knots 64	34 or more knots 65	PEAK WIND SPEED GUST OR MEAN (leave blank if speed does not exceed 16 knots) Direction nearest 10 degrees (2 figures) 66	Speed 67	Time (GMT) (2 figures) 68
13	249	147	99	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0												
14	277	147	99	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0												
15																								

Fisheries and Environment Canada / Pêches et Environnement Canada — Atmospheric Environment / Environnement atmosphérique

SURFACE WEATHER RECORD

AT EDMONTON (NAMAO) (A) (YEG) PROVINCE ALBERTA FROM 0601 13 JULY 1981 TO 0600 14 JULY 19 81 LST = GMT − 7 HOURS

STATION NAME AS IN METSTAT — HOUR (GMT) DAY MONTH — HOUR (GMT) DAY MONTH

CHECKED, CERTIFIED COMPLETE AND CORRECT BY 69 BLGrade

I OBSERVED DATA AND COMPUTATIONS

1 NOTES AND INSTRUMENT DEFECTS AND CHANGES

A100 ADDS FOR 0.0

~~CLNC MAX FM 0000 DA~~

DEW FP COMP 1800 = 0.4

II HOURLY OBSERVATIONS

Corrected Wet-Bulb °C (23)	Relative Humidity % (24)	Total Opacity (25)	Total Amount (26)	Type (27)	Date (GMT) (28)	Hour (GMT) (29)	Sky Condition (30)	Visibility (31)	Weather and Obstructions to Vision (32)	Sea-level Pressure (33)	Dry-Bulb Temperature °C (34)	Dew-Point Temperature °C (35)	Wind Direction (36)	Wind Speed (37)	Wind Character (38)	Altimeter Setting (in.) (39)	Clouds and/or Obscuring Phenomena Type/Opacity (40)	Remarks (41)	Tendency (42)	Observer (Print) (43)
		0	0	SA	13	0700	CLR	15+		149	14 / 9.4	9 / 4.2	10	03		998		(934.8) (80.0)		S40
		0	0	SA	13	0800	CLR	15+		150	16 / 15.7	5 / 5.3	36	03		998		7300 (935.6)		S40
		1	2	SA	13	0900	120 SCT 250 SCT	15+		146	17 / 13.2	9 / 5.1	11	04		997	$Ac^1 Ci^2$	2112 (TR Ac) (934.8) (79.8)	500	S40
		2	7	SA	13	1000	12 SCT 250 BKN	15+		144	16 / 14.2	9 / 5.6	12	03		996	$Ac^1 Ci^2$	3627 (TR Ac) (934.6)		S40
		7	8	SA	13	1100	100 SCT 150 SCT E 250 BKN	15+		139	15 / 13.9	9 / 8.7	07	01		995	$Ac^1 Ac^7 Ci^3$	3778 (TR Acc) (934.1)		S40
		7	9	SA	13	1200	150 BKN E 350 BKN	15+		136	17 / 13.4	8 / 7.8	36	04		994	$Ac^5 Ci^2$	4579 (933.9) (79.7)	5-9	S40
		9	4	SA	13	1300	100 SCT E 140 BKN 250 BKN	15+		136	15 / 14.5	9 / 8.6	05	03		994	$Ac^1 Ac^7 Ci^1$	5099 (932.9)		S40
		8	9	SA	13	1400	100 SCT E 140 BKN 250 BKN	15		134	15 / 15.1	10 / 9.8	00	00		994	Ac1 Ac7 Ci1	1889 (932.7)		A5
		9	10	SA	13	1500	100 SCT E 140 BKN 250 OVC	15		138	16 / 16.0	11 / 10.7	00	00		995	Ac2 Ac6 Ci1	079X Acc Asocto (934.1) (79.7)	3-2	A5
		7	9	SA	13	1600	100 SCT E 140 BKN 250 BKN	15		135	18 / 17.6	12 / 11.5	33	05		994	Acc2 As^4 Ci1	6579 VIRGA E-SE (933.8)		A5
		6	9	SA	13	1700	100 SCT 140 BKN E 250 BKN	15		125	19 / 19.3	12 / 12.2	31	09		991	Acc2 As^4 Ci1	3269 VIRGA E (932.8)		A5
		8	9	SA	13	1800	100 SCT E 140 BKN 250 BKN	15		130	22 / 22.2	13 / 12.5	35	07		992	Acc 3 Ac4 Ci1	2089 << Asocto (933.3) (79.7)	5-8	A5
		7	7	SA	13	1900	100 SCT E 250 BKN	15+		129	24 / 23.5	14 / 13.9	06	07		992	Acc 5 Ci1	5967 (933.2)		A5
		8	9	SA	13	2000	E 100 BKN 250 BKN	15		128	24 / 24.2	13 / 13.0	08	08		992	Acc 7 Ci1	2089 VIRGA E-SW (933.1)		A5
		9	9	SA	13	2100	E 100 BKN 250 BKN	15		130	23 / 23.2	14 / 13.9	06	02		992	Acc 7 Ci1	2989 (932.8) (79.7)	5-10	A5
		7	8	SA	13	2200	44 SCT E 100 BKN 250 BKN	15		126	25 / 24.6	14 / 13.8	02	06		991	TCU1 Acc5 Ci1	6878 SHWRS E-SE (932.9)		A5
		8	9	SP	13	2227	44 SCT E 80 BKN 270 BKN	V5	RW-				04	04			TCU4 AC3 CI1			0
		8	9	SP	13	2240	44 SCT E 90 BKN 270 BKN	12	RW-				00	00			TCU5 AC2 CI1	FUNNEL CLD SW; FUNNEL CLD DSIPTD		0
		8	9	~~SP~~ SA	13	2300	45 SCT E 90 BKN 270 BKN	15		130	22 / 22.4	16 / 15.8	15	04		992	TCU5 ACC $^{2}_{3}$ CI1	4889 VIRGA S-SW MAMMA S QUAD (933.3)		A
		9	9	SA	14	0000	45 SCT E 90 BKN	15		130	21 / 20.8	11 / 11.0	18	06		991	TCU4 ACC5	8099 MAMMA ~~SHWRS~~ SHWRS N-NE (932.9) (80.1)	504	A
		9	9	SA	14	0100	45 SCT E 90 BKN	15		134	21 / 20.9	11 / 11.3	14	06		992	TCU1 ACC8	9399 SHWRS E VIRGA S (933.3)		A
		8	9	SA	14	0200	E 90 BKN 120 BKN 270 BKN	15		126	18 / 18.1	12 / 11.6	06	06		990	ACC6 AC2 CI	1689 VIRGA S SHWRS NE (932.5)		A
		7	8	SA	14	0300	40 SCT 90 SCT E 120 BKN 270 BKN	15+		125	18 / 18.2	12 / 12.2	07	03		989	TCU1 ACC2 $\frac{AC3}{AC4}$ CI1	2278 (932.4) (80.1)	505	A
		6	7	SA	14	0400	90 SCT 120 SCT E 270 BKN	15+		126	17 / 16.6	12 / 12.2	00	00		990	ACC1 AC4 CI1	6267 (932.5)		A
		9	10	SA	14	0500	90 SCT E 120 BKN 270 OVC	15+		127	15 / 15.2	12 / 11.8	03	04		990	ACC2 AC6 CI1	289X LTGIC DSNT SE (932.6)		A
		9	10	SA	14	0600	90 SCT E 120 BKN 270 OVC	15		127	16 / 15.8	13 / 12.6	05	06		991	Acc2 Ac7 Ci1	E648 FQT LTGIC E-SE (932.9) (75.8)	1-5	A

(GMT) Type 2	Duration of Weather and/or Obstruction to Vision Bgn 3	End 4	Type 2	Bgn 3	(GMT) End 4
RW-	2227	2240			

III CODED SYNOPTIC REPORTS

Day (GMT)	Hour	IIiii	N dd ff (26)	VV ww W (31 32 2-4)	PPP TT (33 34)	$N_h C_L h_C C_M C_H$	$T_d T_d$ app (35 42)	(99 ppp)	$6P_0P_0P_0P_0$ (20)	7 RR R_t s (12 3/4 14)	8 $N_s C h_s h_s$	8 $N_s C h_s h_s$	8 $N_s C h_s h_s$	9 $S_p S_p s_p s_p$	$2R_{24}R_{24}R_{24}R_{24}$ (13)	4 $T_x T_x T_n T_n$ (6 8)
13	09										8	8	8	9		(24) 12
	12	71121	73664	74621	136 13	50931	08809		69339	7	8	8	8	9	2	4 27 13
	15			74037							8	8	8	9		12 24
	18	71121	73307	~~74~~	130 23	60981	12508		69323	7	8	8	8	9	2	4 23 13
	21										8	8	8	9		12 18
14	00	71121	71805	74158	130 21	32680	11604		69329	79720	8	8	8	9	2	4 25 13
	03										8	8	8	9		24 24
	06	71121	70504	74132	127 16	70981	13105		69329	7	8	8	8	9	2	4 25 13

HOUR (GMT)	Corrected Maximum TENTHS (5)	$T_x T_x$ (6)	Corrected Minimum TENTHS (7)	$T_n T_n$ (8)	Snowfall cm & TENTHS (9)	Water equivalent mm & 10 TENTHS (10)	Rainfall mm & TENTHS (11)	Total Precipitation mm & TENTHS (12)	24-hour Precipitation mm & TENTHS (13)	Depth Snow on Ground WHOLE cm (14)
12	19.3	(24) 27	12.5	12 13	0	0	0	0	0	0
18	22.5	12 23	12.5	24 13	0	0	0	0	0	0
00	24.5	12 25	20.7	18 13	0	0	TR	TR	TR	0
06	~~24.5~~ (20.9)	24 25	14.9	24 13	0	0	0	TR	TR	0
24-HR.	24.5		12.5		0	0	0	TR		

IV SUMMARY FOR THE CLIMATOLOGICAL DAY ENDING AT 0600 GMT

TIME (GMT)	0900	1200	1500	1800	2100	0000	0300	0600
15 Sum (T_{12} + To)	42.8	39.4	39.6	39.6	40.4	34.2	34.2	38.0
16 Mean (Sum ÷ 2)	21.4	19.7	19.8	14.8	20.2	17.1	17.1	19.0
17 Attached Thermometer	90	75	76	80	81	81	77	78
18 Barometer as read	937.2	935.9	936.2	935.7	935.9	935.4	934.5	935.1
19 Total Correction	-3.4	-2.0	-2.1	-2.4	-2.6	-2.5	-2.1	-2.2
20 Station Pressure	934.8	933.9	934.1	933.3	933.3	932.9	932.4	932.9
21 Reduction to Sea Level	79.8	79.7	79.7	79.7	79.7	80.1	80.1	79.8
22 Sea Level Pressure						1013.0	1012.5	1012.7

Day (2 figures) (44)	TEMPERATURE Maximum TENTHS (45)	TEMPERATURE Minimum TENTHS (46)	REL. HUMIDITY Maximum (47)	REL. HUMIDITY Minimum (48)	AMOUNT OF PRECIPITATION 6-HOUR TOTAL AMOUNT 1200Z mm & TENTHS (49)	6-HOUR TOTAL AMOUNT 1800Z mm & TENTHS (50)	6-HOUR TOTAL AMOUNT 0000Z mm & TENTHS (51)	6-HOUR TOTAL AMOUNT 0600Z mm & TENTHS (52)	24-HOUR AMOUNT Rainfall (R,RW,L, ZR,ZL,A) mm & TENTHS (53)	24-HOUR AMOUNT Snowfall (S,SW,IP, IPW, SP SG, IC) cm & TENTHS (54)	24-HOUR AMOUNT Total Precip. mm & TENTHS (55)	DEPTH* of snow on the ground at 12Z WHOLE cm (56)	DAY WITH Thunderstorms (57)	Freezing Rain or Freezing Drizzle (58)	Hail (59)	Fog, Ice Fog (vsby less than 5/8 mi) (60)	Vsby 6 mi or less Smoke, Dust Haze or Haze (61)	Vsby 6 mi or less Blowing Dust, Blowing Sand (62)	Vsby 6 mi or less Blowing Snow (63)	MEAN WIND OF 28 or more knots (64)	MEAN WIND OF 34 or more knots (65)	PEAK WIND SPEED GUST OR MEAN (leave blank if speed does not exceed 16 knots) Direction nearest 10 degrees (2 figures) (66)	Speed (67)	Time (GMT) (2 figures) (68)
13	20.6	5.5	m	m	0	-	7.2	0	TR	0	TR	0	0	^	0	0	0	0	0	0	0			

FUNNEL ALTA (WINTERBURN TORNADO)

P. 1 of 2

ALTA
STORM DATE: MONDAY
JULY 13, 1981, 1600 M.S.T



PICTURE: Ken Orr

Bill Campbell surveys the damage caused by the freak tornado

Tornado lashes Winterburn farm

By ELSE REMPEL

A freak tornado unleashed its fury at a Winterburn farm about 5 p.m. Monday, destroying buldings and equipment before roaring northeastward.

"It was awful," said Doris Campbell of Hillcrest Farms. "I've seen winds but never like this. It was ripping the shingles off the pump shed and I saw the top of the hay shed blow off.

"There was stuff scattered all over the field."

What weathermen thought was a harmless funnel cloud, turned into a howling monster that gobbled up a hay shed, garage and small barn at the farm of W.J. Campbell.

A second barn was damaged when the whirlwind dumped the hay shed on the barn's roof.

The devastation, lasting 10 minutes, didn't damage the house but the tornado hurled broken tree limbs onto the balcony.

A stunned Mr. Campbell, her son, came home shortly after the twister had disappeared. He was unable to estimate the damage.

RCMP Constable John Nastiuk, who was on his way to work from Edmonton to Spruce Grove, was surprised when he saw the black twister writhing across the sky.

"I've seen them before in Ontario, but never in the West and I've been here eight years."

The tornado caught weather officials off guard.

"We would have issued a warning if we had foreseen what would happen," said a forecaster. "It's impossible to predict a tornado, especially when the same conditions that produce thunderstorms can cause tornadoes.

"Funnel clouds are rare; we get about two or three sightings a year but they seldom touch the ground."

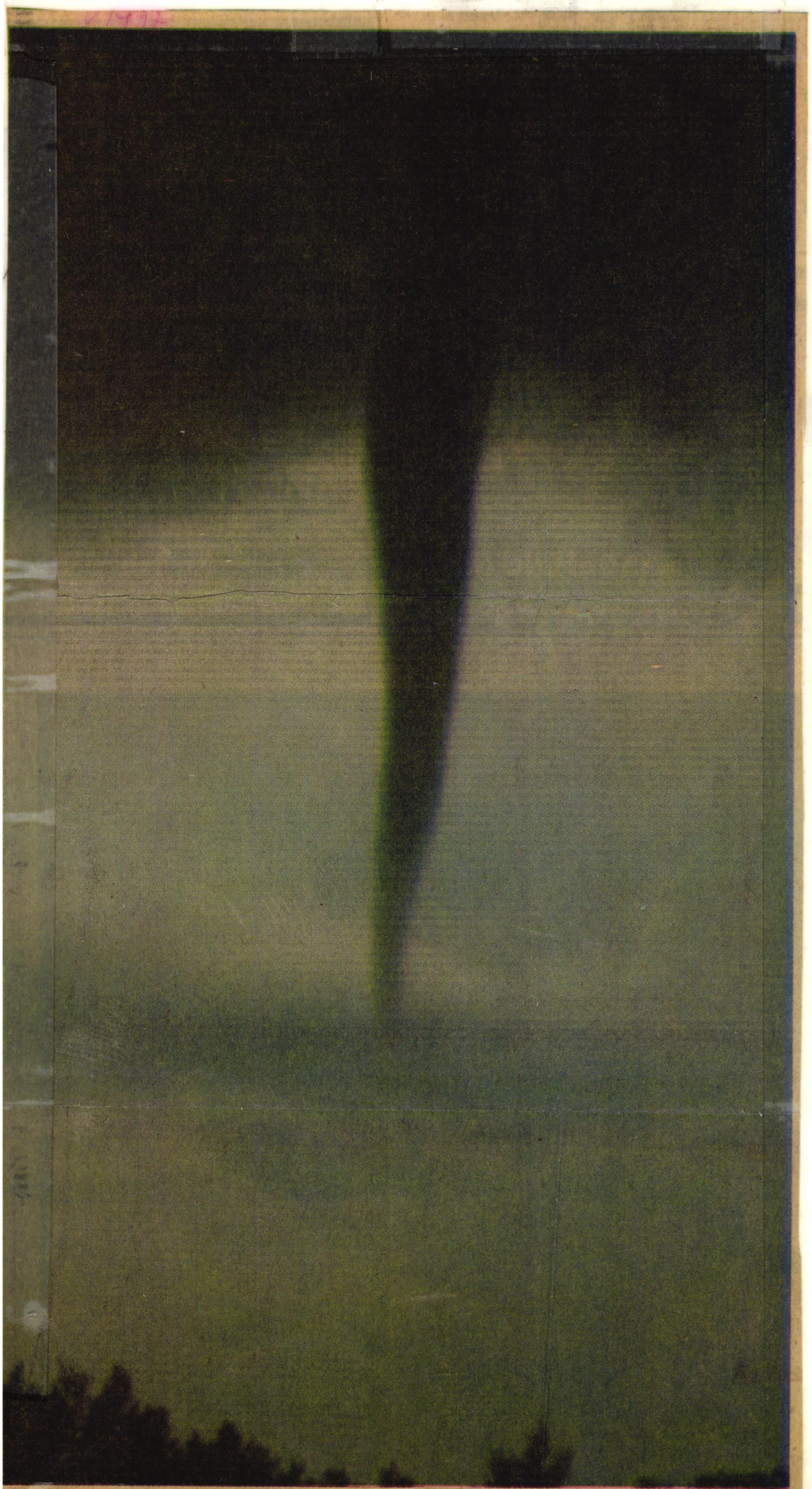
Bernard Lamarche, of Environment Canada, said tornadoes in this area are even rarer.

"The last time we had a tornado around here was in 1969, southwest of the city," he said. "There was severe hail damage in the area."

A funnel cloud develops when a thunderstorm — caused by an uplift of air — reaches maturity, resulting in a downward rush of air. Rain adds to the weight of the thunderstorm and the downrush gathers momentum.

"Every once in a while it starts rotating in a small cone," explained a weather official. "Generally it dissipates before the vortex works its way to the ground."

Mr. Lamarche said the weather office was unable to track Monday's whirlwind.



PICTURE: Tom Starko

This funnel cloud turned into a destructive tornado

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July 15, 1981

STORM DATE: JULY 13, 1981

F1492



Freak tornado

W.J. Campbell stands before the wreckage of his barn at his farm near Winterburn, west of Edmonton. A freak tornado played havoc Monday with several buildings in the area. Environment Canada officials said tornados in north-central Alberta are rare. (CP)

SASK

FUNNEL CLOUD ACTIVITY - WINTERBURN AREA - JULY 13, 1981

On July 13, 1981 at 1700 hours, a funnel cloud moving west-south-westward, touched down at the Hillcrest Farms, devastating a large, metal-roofed hay shed. The farm is located in the Winterburn area, approximately 1½ miles west of Edmonton and is owned by Mr. and Mrs. Campbell.

Mr. Campbell indicated that the funnel cloud moved in from the east, by passing the two-storey farm house by about 30 feet to the north, uprooting a spruce tree in the process and removing a few shingles off the farm house. The funnel cloud then continued westward, removing some shingles off the sheds situated approximately 80 feet west of the farmhouse and then touching down in a corral west of the sheds in a large flurry of dust. The Tornado continued westward totally destroying a large, metal-roofed hay shed and just missing the barn. Mrs. Campbell, who was in the house at the time, reported that the roof was lifted to a height of about 400 feet and then scattered all over the barnyard with some portions located as far as 650 feet from the original location.

The Tornado then lifted back to a funnel cloud and continued south-westward for 3/4 of a mile, bypassing the Westview Village Trailer Court by about 1/8 of a mile, where it appeared to stall and decay.

Photographs were taken of the damaged area, both from the ground level and from the air. Additional photos of the funnel cloud were obtained from Mr. Ted Orydzuk, an employee of Westview Village.

The damaged area was viewed by myself on July 14, 1981 and again by air on July 17, 1981 by Mr. Carr McLeod and myself. There was no evidence to indicate that the Tornado track lasted for more than 300 to 400 yards.

Metro J. Koroluk
Special Programs Officer.

NOTE:

If any of the funnel cloud photos taken by Mr. Orydzuk are used for any publication, then Mr. Orydzuk should receive the credits due.



