Government of Canada / Gouvernement du Canada

ACTION REQUEST / FICHE DE SERVICE

To — À

M. Newark
CCAI, Downsview

File No. — Dossier N°

Date
23-07

From — De

A. Gates, A/MAES Bedford

☐ Please call / Prière d'appeler	Tel. No. — N° de tél.	Ext. — Poste

☐ Returned your call / Vous a rappelé	☐ Will call again / Vous rappellera	☐ Wants to see you / Désire vous voir

Date	Time — Heure	Message received by / Message reçu par

☐ Action / Donner suite	☐ Approval / Approbation	☐ Note & return / Noter & retourner
☐ Comments / Commentaires	☐ Draft reply / Projet de réponse	☐ Note & forward / Noter et faire suivre
☐ As requested / Comme demandé	☐ Signature	☐ Note & file / Noter et classer

These are photocopies of satellite pictures received in Maritimes Weather Office on Tuesday, 22 July. Note circled areas. Thunderstorm activity was reported at Yarmouth YQI about 10Z–11Z. I saw lightning in Halifax area about 1640Z.

EA

TORNADO PROJECT SUMMARY SHEET

F=0 N.S.

1. DATE AND TIME TUE JULY 22, 1980 APPROX 1120 AST

2. LOCATION OR PATH (attach map) VENTY ROSEWAY 0398001

3. PATH LENGTH ☐ NOT KNOWN ☒ ~~<1mi~~ 305m; ☐ ~~1-4mi~~; ☐ ~~5-10mi~~; ☐ ~~11-50mi~~; ☐ LENGTH IF>50m

4. PATH WIDTH 100-150m 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.) MARBLE SIZED HAIL PRECEDED TORNADO

10. TOTAL DAMAGE ESTIMATE $ 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES

HALIFAX CHRONICLE-HERALD, WED JULY 23, 1980
LETTER FROM MRS NANETTE HOLDEN, dated AUG 7, 1980.

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

(a) Two eyewitness saw a funnel shaped cloud.

(b) Trees uprooted. Canoe thrown through the air into spruce trees. Fully packed camper trailer carried 10-15 ft and overturned landing on an apple tree.

WORKSHEET

IDTO 03980-01

(1) ORIGIN x 20.310900

y 4833500

(5) Standard Error S_x

C = 102

(2) LIFT-OFF x_1 20311000

y_1 4832500

(6) Standard Error S_y

C = 102

(3) $(x_1 - x)$ = 100

(4) $(y - y_1)$ = 1000

(7) DAMAGE LENGTH

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

(3)+(4) $\boxed{\rightarrow r,\theta}$ = 1005

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

$\boxed{x \leftrightarrow y}$ = 84

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

(5)+(6) $\boxed{\rightarrow r,\theta}$ = 144

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

(7)+(9) $\boxed{\rightarrow r,\theta}$

$\boxed{x \leftrightarrow y}$ = 8

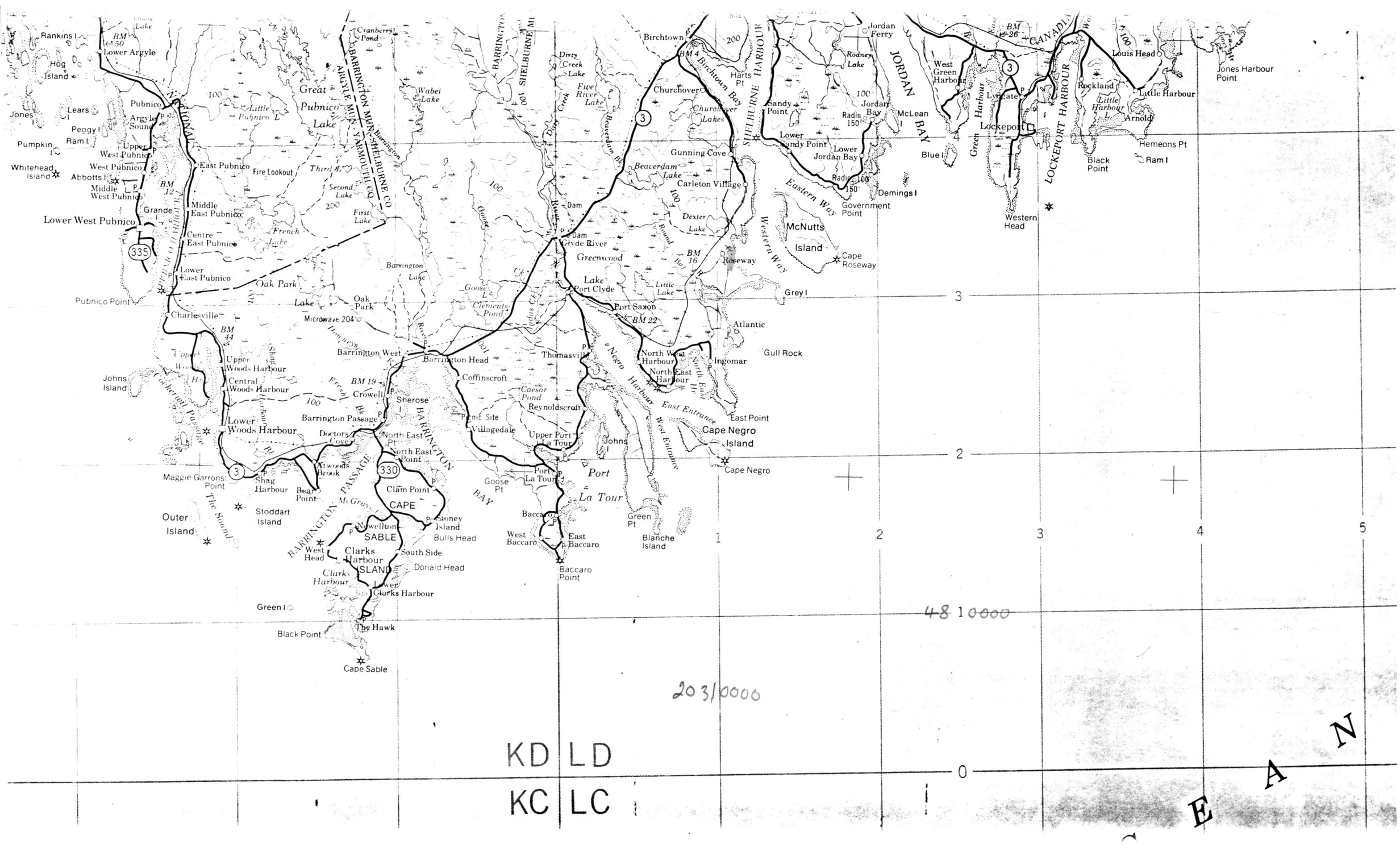
NE quad $\phi = 90 - \alpha$

NW quad $\phi = 270 + \alpha$

SW quad $\phi = 270 - \alpha$

SE quad $\phi = 90 + \alpha$

(11) ϕ = 354°


Rankins I
Hog Island
Lower Argyle
Jones I
Lears I
Peggy I
Pumpkin I
Ram I
Whitehead Island
Abbotts I
Pubnico
Argyle Sound
Upper West Pubnico
West Pubnico
Middle West Pubnico
Lower West Pubnico
Grande I
East Pubnico
Middle East Pubnico
Centre East Pubnico
Lower East Pubnico
Pubnico Point
Fire Lookout
Third L
Second Lake
First Lake
French Lake
Oak Park
Oak Park Lake
Barrington Lake
Great Pubnico Lake
Little Pubnico L
Wabei Lake
Cranberry Pond
Charlesville
Microwave 204
Upper Woods Harbour
Central Woods Harbour
Lower Woods Harbour
Johns Island
Barrington West
Barrington Head
Barrington Passage
Crowell
Sherose I
Coffinscroft
Caesar Pond
Reynoldscroft
Picnic Site
Villagedale
Doctors Cove
North East Pt
North East Point
Atwoods Brook
Shag Harbour
Bear Point
Maggie Garrons Point
Outer Island
Stoddart Island
The Sound
Clam Point
CAPE SABLE ISLAND
Sloney Island
Bulls Head
Swellum
West Head
Clarks Harbour
South Side
Donald Head
Lower Clarks Harbour
Green I
The Hawk
Black Point
Cape Sable
Goose Pt
BARRINGTON PASSAGE
Port La Tour
Upper Port La Tour
Port La Tour
Johns I
Baccaro
West Baccaro
East Baccaro
Baccaro Point
Green Pt
Blanche Island
Cape Negro Island
Cape Negro
East Point
Thomasville
North West Harbour
North East Harbour
Ingomar
Gull Rock
Atlantic
Port Saxon
Lake Port Clyde
Greenwood
Dam
Clyde River
Carleton Village
Gunning Cove
Beaverdam Lake
Dexter Lake
Round Bay
Roseway
Cape Roseway
Grey I
McNutts Island
Government Point
Demings I
Western Head
Eastern Way
Western Way
Birchtown
Birchtown Bay
Churchover
Churchover Lakes
Harts Pt
Five River Lakes
Dirty Creek Lake
Jordan Ferry
Rodney Lake
Sandy Point
Jordan Bay
Lower Jordan Bay
Lower Sandy Point
McLean I
Blue I
West Green Harbour
Green Harbour
Lockeport
Lockeport Harbour
Louis Head
Jones Harbour Point
Rockland
Little Harbour
Arnold
Little Harbour L
Black Point
Hemeons Pt
Ram I
Jordan Bay
Shelburne Harbour
Barrington Passage
Shelburne Co
Argyle Municipality
Barrington Municipality
Yarmouth Co
Lockeport Harbour
Canadian
Radio 150
Radio 100
BM 50
BM 12
BM 44
BM 19
BM 4
BM 16
BM 22
BM 26
100
200
335
330
3
KD LD
KC LC
48 10000
203/0000
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Crane's point

↳ 1215.

12 ~~00~~ AST

"A" frame home started to vibrate for a few seconds. Trees flattened, trailer came inland about 1,000 ft. Hit neighbours about 1/4 mi away at Crane's point. C. Haneisch (902) 637-2159

Width 300-500 ft.

A lot of lightning. Hail, marble-sized, just before the tornado hit.

Came from the north.
Canoe up on end, carried into spruces. Spruces uprooted, ~~in a bunch~~ about 50 ft wide.

Haneisch.

Hail put holes in punkin leaves. Came from N or NW. ~~Went thru~~ flattened a few rows of potatoes. Wind shifted 180°.

Holden (902) 637-2422

RR#3,
Rossway,
Shelburne Co. NS
August 7, 1980
B0T 1W0

TO A. M. A.E.S.
FILE NO
AUG 15 1980
FOLIO NO 802192
FILE OUT TO

Nova Scotia Environmental Services,
Weather Division,
Bedford,
Nova Scotia

Dear Sir,

You may have heard that my family had the sorry experience of some odd storm on July 22nd. We are quite certain that the damage resulting was not from lightening but a "strong" wind ... very strong. I am curious to know if, in your estimation, this might have been a small tornado.

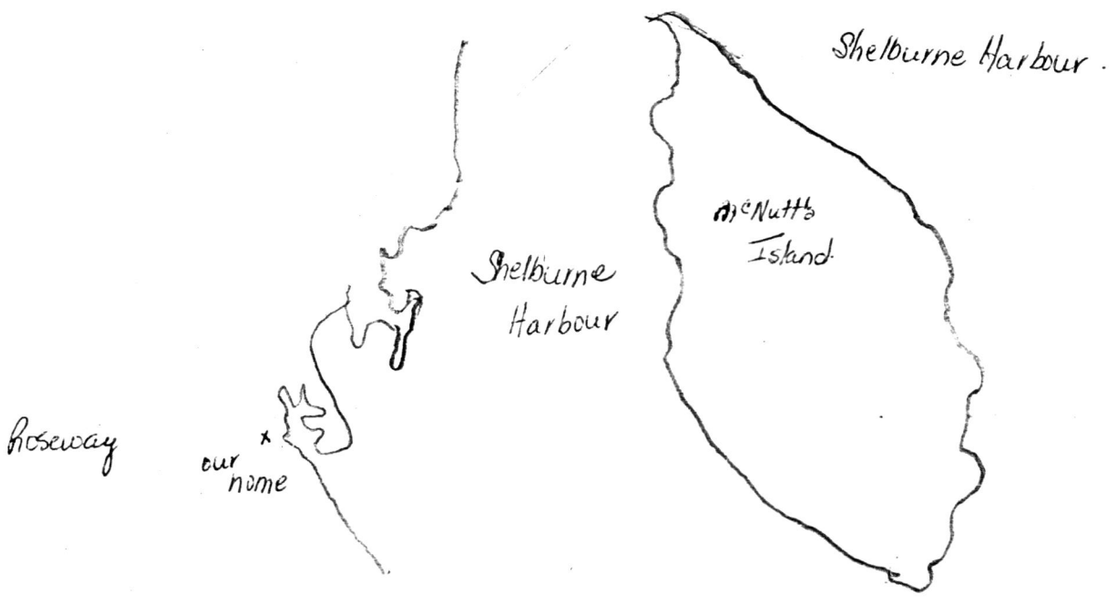
To the best of my memory the sequence of events was as follows:

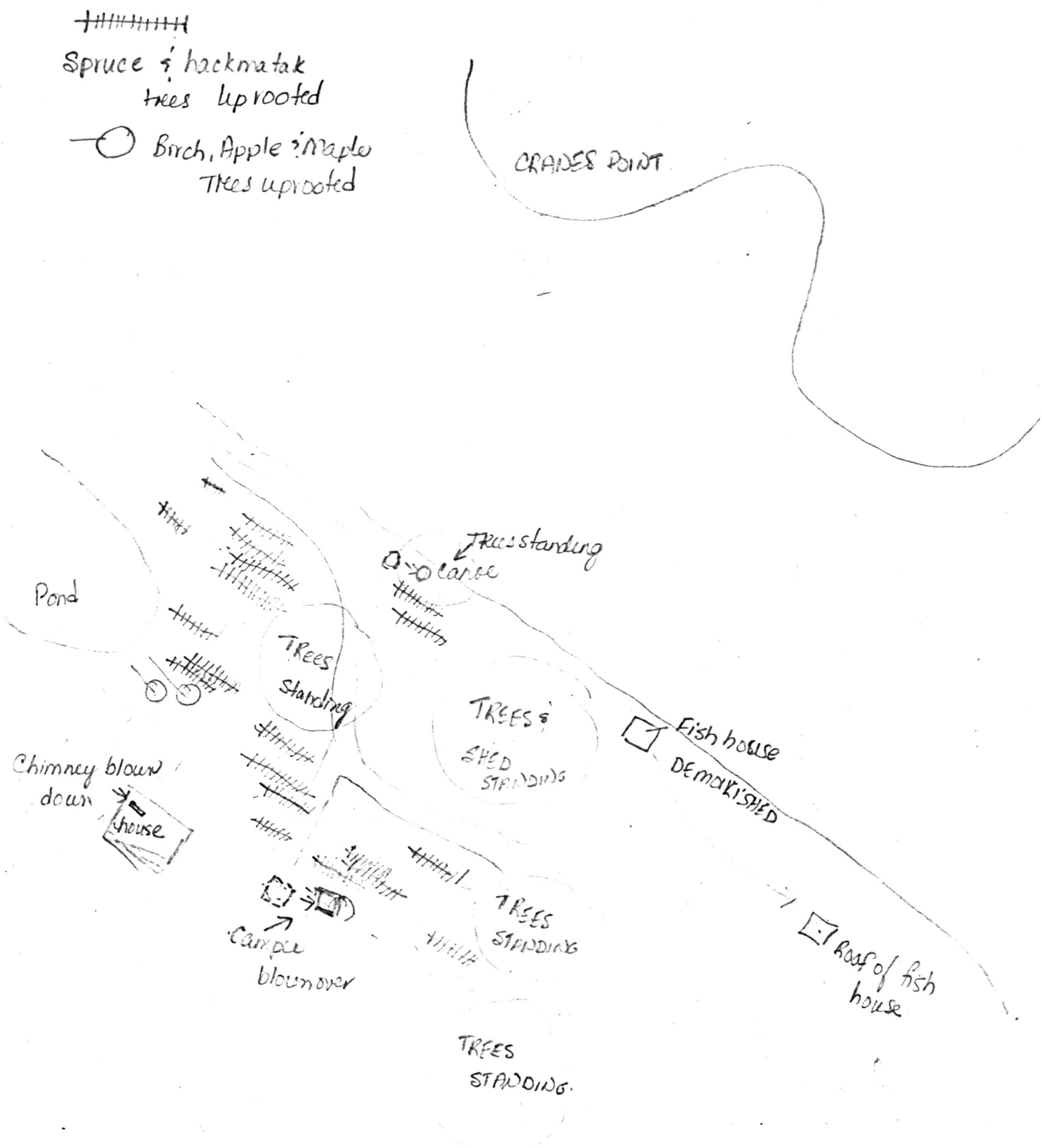
I was shopping in Shelburne that morning and the weather was very warm and humid. When I left town around 11:30 I had all the windows in the car open and as I travelled home (approx. 19 miles) it got much colder - I first noticed the cold around Birchtown and, because I couldn't be bothered to stop and close all the windows I was "frozen" by the time I arrived in Rossway at about 12:00. At that time I noticed the sound of thunder in the distance -- I believe it came from the direction of the harbour. The power had been off since 11:50. By the time we sat down for dinner, about 12:15 or 12:20 it had become very, very dark outside - in fact we had to light two candles to see our meal, and the thunder sounded closer. There was no rain then. As we ate the wind rose and we could see the jagged lightening across the harbour in Sandy Point. Suddenly, as if the sky opened the rain began and shortly it was joined by hail hitting the house like bullets and the wind rose even higher. There was one crash of thunder which seemed quite close and one minute we could see the trees outside their tops waving about like feathers and the next minute we couldn't see outside at all - the rain seemed to be frothing up on the windows - somewhat like beer

in the washing machine. At this point the house shook and we heard a loud crack and headed for the bedroom. While in there the thunder continued but not around our house and, as I watched out the back window the rain was not as heavy and the wind seemed to have eased although it was enough to flatten the bushes behind the house. After only 3 or 4 minutes we felt safe enough to return to dinner, little knowing what we'd find ... 23 trees down a camper trailer destroyed etc. etc.

I will later draw an outline of our land & its relationship to the harbour and describe the destruction but first I'd like to share some comments of people who came to view the damage.

Two people from Sandy Point saw a funnel shaped cloud over the harbour at about the time we sat down to eat. One man in Sandy Point said he believed he saw one storm heading over Shelburne toward the harbour and another travelling up the harbour. He says they met somewhere off our area. A lady visiting from Florida in Ingomar commented as the skies darkened "When this happens in Florida - we prepare for a tornado".





Some of the spruce trees downed were well over 50' tall. One tree was torn from the roots at the base of its trunk. 3 trees were snapped off about 4-5 feet above the ground - not just split but completely broken off. One camper was blown about 10-15 feet & over behind standing on an apple tree. One canoe (141) was lifted and set in behind several spruce trees and we found it standing on end. The limbs of those trees did not appear broken so it could not have come at them from the side but rather came down from above them - they must have been 40-50 feet high.

Anyway, I'd appreciate your comments.

Yours truly, Mrs Nanette Hilden

Nature's fury upsets vacation plan

By MIKE FLEMMING
South Shore Bureau

ROSEWAY, Shelburne County — What is described as a "freak" lightning storm in this area Tuesday came a little too close for comfort for one family, who literally shook from the blasts and saw their quiet waterfront property devastated by Mother Nature.

"Another 50 feet closer and we probably wouldn't be here right now," the bewildered home owner said last night.

David Holden, his wife Nanette and their daughter Virginia were eating lunch in their seaside home Tuesday when the skies opened in fury, shaking the house and sending the family for shelter in the bedroom.

When they returned to their yard about 90 seconds later, their property was "torn apart."

"It all happened so fast," Mr. Holden said in an interview. "One minute things were fine. Then a minute and a half later the place was torn apart."

The lightning lifted a fully-packed camper trailer, ready for summer vacation, from its place in the driveway and tossed it 50 feet in the air.

"It probably would have gone farther than that but it hit an apple tree in flight and snapped that off before landing," Mr. Holden said.

See NATURE'S FURY page 2

Nature's fury

(Continued from page one)

He counted 23 tall spruce and hackmatack trees which were either snapped off or uprooted in the storm.

"A canoe on the beach was blown into the air and lifted more than 100 feet to the shore. I found it stuck in the middle of some trees, nose buried in the ground."

Several wooden chairs on the patio deck of the gabled roof home were flung into the air before coming to rest about 400 feet away. The chimney was blown off the home.

"I've never seen anything like it before and hope I never do again," Mr. Holden said.

However, no one was hurt and the only thing unaccounted for is the family cat. Mr. Holden says it was likely frightened away by the storm.

Needless to say, the vacation the schoolteacher and his family had planned for Tuesday, is now cancelled.

~15Z-16Z

Raob from Shelburne, near Roseway, available for 22/1200Z. Rareps from HZ somewhat later gave tops to 55-58 thsd.

Halifax Chronicle-Herald
Wednesday, 23 July 1980

Tornado

Storm Date: Thurs August '80

Nature's fury upsets vacation plan

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See NATURE'S FURY page 2

Halifax Chronicle Herald
Nova Scotia
Circ. 72,641

CANADIAN PRESS CLIPPING SERVICES

July 23, 1980

Nature's fury

(Continued from page one)

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Canadian Press Clipping Services
481 UNIVERSITY AVE.
TORONTO, M5W 1A7

Halifax Mail Star, N.S.
Circ. 55,449
July 23, 1980

CANADIAN PRESS CLIPPING SERVICES

Nature's fury upsets vacation plan

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South Shore Bureau

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DATE July 22 1980
DATE July 23 1980
DATE July 24 1980
06 12 18 24 06 12 18 24 06 12 18
1040
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1020
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FROM DE July 22 1980
TO À July 25 1980
OFF AT ENLEVÉE À 08 HN 00 ST. A
ON AT POSÉE À 09 HN 12 ST. A
BAROMETRIC PRESSURE AT PRESSION BAROMÉTRIQUE À Shelburne N.S.
THIS SIDE UNDER
CE CÔTÉ EN DESSOUS

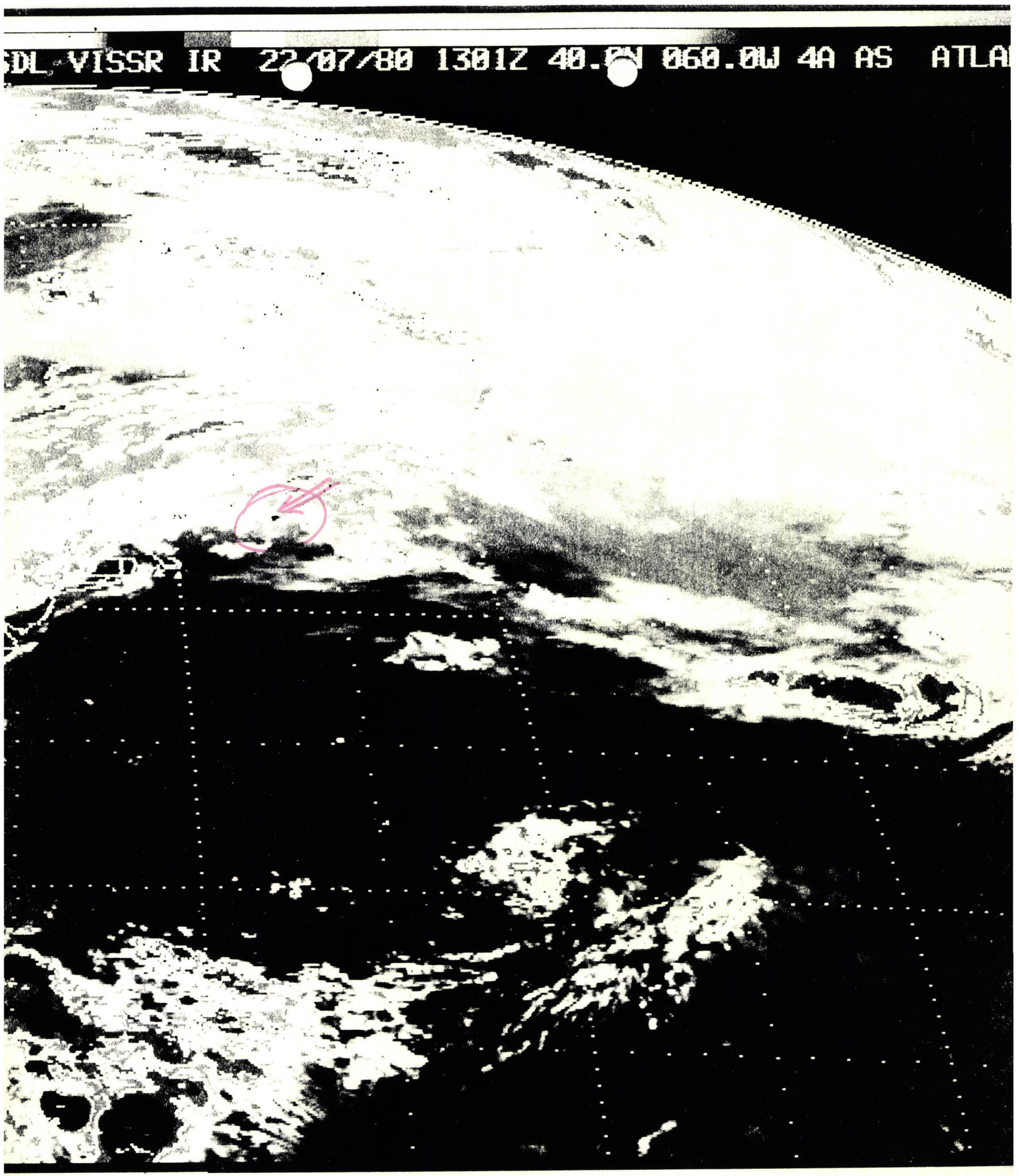
Cape Sable Lt. & Sl.
Nova Scotia.

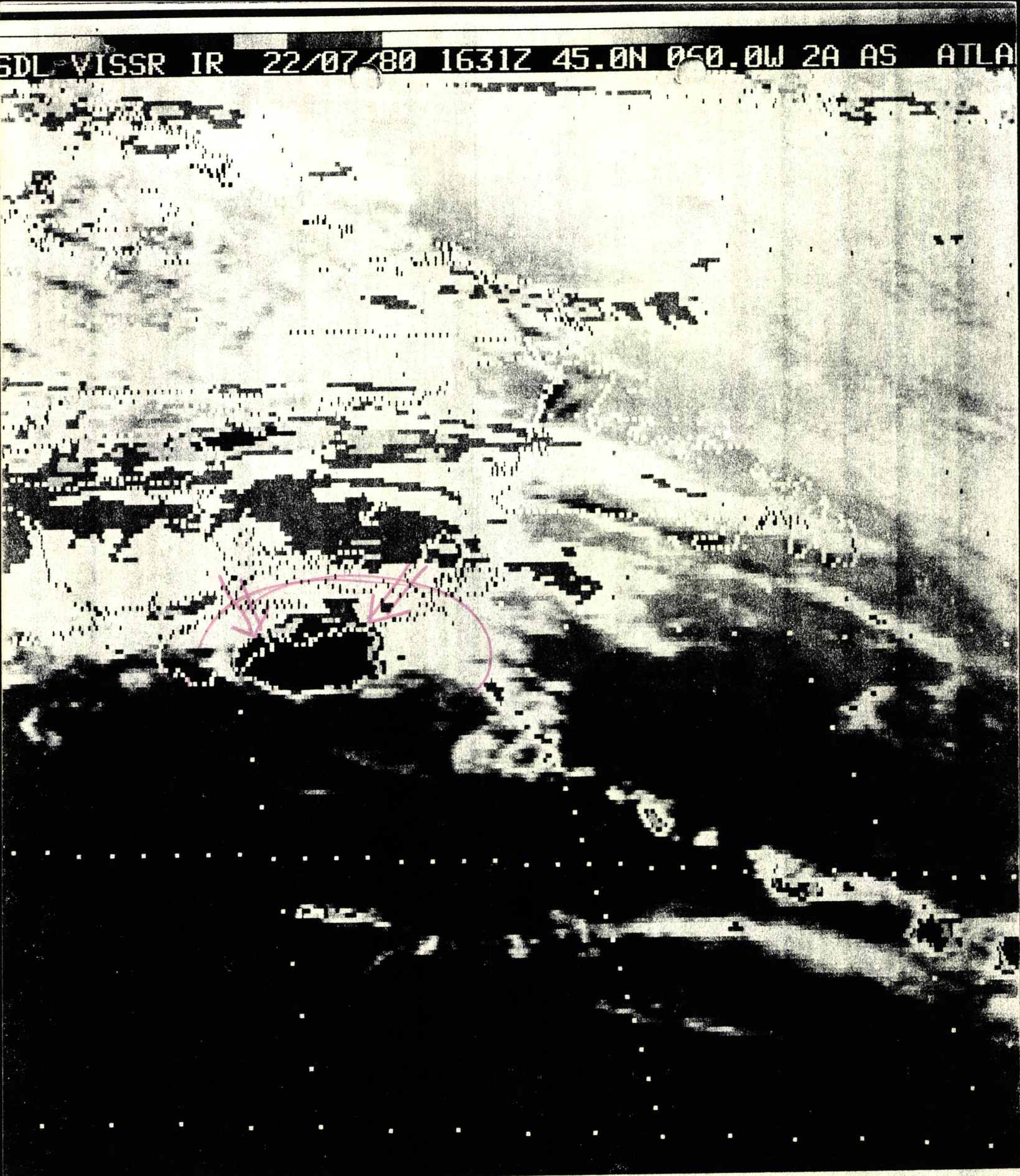
Aug 1/80

Dear Sir:-

On July 22/80 at approx 1205 hrs the wind was light S.W. at that time it became very dark and for about 7 min. the wind shifted to Strong SW and blew up to 50 to 55 MPH. Then dropped back to light S to SW.
To the north of this station they had heavy rain with lightning & Thunder which we did not have here.
I hope you find this information useful.

Yours truly
J R Smith Keeper
Cape Sable Lt & Sl.


SDL VISSR IR 22/07/80 1301Z 40.0N 060.0W 4A AS ATLA


SDL VISSR IR 22/07/80 1631Z 45.0N 050.0W 2A AS ATLA

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

RADAR WEATHER RECORD
MESSAGE D'OBSERVATION MÉTÉOROLOGIQUE PAR RADAR

Station HALIFAX INTERNATIONAL (A)

Month and Year / Mois et Année July 22/80 Sheet No. / Feuille No. 30

Date (gmt) Date (T.M.G.)	Time (gmt) Heure (T.M.G.)	Character - Type Area, Line, Cell Genre - Zone, Ligne, Type de Cellule	Intensity Intensité	Tendency Tendance	Direction and Distance Direction et Distance	Width or Diameter Largeur ou Diamètre	Direction and Speed Direction et vitesse	Height of Echo Tops Altitude sup. détectée	Remarks Remarques	Obs. Intls. Init. de l'obs.
22	0245	AREA ⓘ KW	MDT	NEW	340/140	25D	VNKN	UNKN		FS.
22	0345	AREA ⓘ RW	Wk	—	350/130	25D	2720	190		
22	0445	PPINE								✓
22	0545	AREA ⓘ RW	MDT	NEW	277/150 245/150 260/200	—	UNKN	UNKN		✓
22	0945	AREA ⓘ RW	MDT	+ -	243/155 270/200 256/125	—	2620	UNKN		✓
22	1045	AREA ⓘ TRW	MDT	+	287/200 286/90 238/115 232/175 244/200	—	2740	240	MAX TOPS 330 FEW STG CELLS	✓
22	1145	ALGN ⓘ TRW	MDT/STG	+	220/50 230/105 297/175	—	2540	340-400		LL.
22	1245	ALGN ⓘ TRW	MDT/STG	-	137/30 243/170 307/150	-	2640	200-340	FEW TOPS SW 400	LR.
22	1345	PPIDM UFN								LR
22	1445	AREA ⓘ TRW RW	MDT/STG	+	104/60 235/150 294/60 271/140 332/165	—	2530	240-340		LR.
	1445	CELLS LN ⓘ TRW	VRY STG	NEW	240/55 237/125	25W	UNKN	400-470	MAX TOP 560 AT 232/70	LR
22	1545	AREA ⓘ TRW RW	MDT/STG	+	100/70 220/135 332/80 269/110 350/180	—	2430	240-320		LR.
	1545	CELLS LN ⓘ TRW	VRY STG	+	208/80 221/95	35W	2530	460-480	MAX TOP 580 AT 222/65.	LR
22	1645	AREA ⓘ TRW RW	MDT/STG	NC	3/145 102/135 197/110 234/60 55/30 275/110 294/145 340/165	—	2735	200-320		LR
	1645	CELLS ALGN ⓘ TRW	VRY STG	-	177/45	75D	2430	460-520		LR.
22	1745	ALGN ⓘ RW	MDT	-	10/165 87/110 260/110	—	2740	120-160		LR

00-0063-2396 (02/77)

Type of Radar / Type de Radar WSRC (5.7cm)

Officer-in-Charge / Agent Responsable _____

Fisheries and Environment Canada / Pêches et Environnement Canada

Atmospheric Environment / Environnement atmosphérique

RADAR WEATHER RECORD
MESSAGE D'OBSERVATION MÉTÉOROLOGIQUE PAR RADAR

Station: HALIFAX INTERNATIONAL (A)

Month and Year / Mois et Année: 22 July 80

Sheet No. / Feuille No.: 31

Date (gmt) Date (T.M.G.)	Time (gmt) Heure (T.M.G.)	Character - Type Area, Line, Cell Genre - Zone, Ligne, Type de Cellule	Intensity Intensité	Tendency Tendance	Direction and Distance Direction et Distance	Width or Diameter Largeur ou Diamètre	Direction and Speed Direction et vitesse	Height of Echo Tops Altitude sup. détectée	Remarks Remarques	Obs. Intls. Init. de l'obs.
22	1745	AREA CDTRW	STG	—	129/50	50 D	2635	300-450		45
22	1845	AREA CD RW	WK/MDT	—	52/115 321/40 293/150 350/150	—	2725	120-120		40
	1845	AREA CD TRW	MDT/STG	—	60/120 82/145 140/140 196/45	—	2425	350-420		45
22	1945	AREA CD RW	WK/MDT	—	27/160 360/70 288/135 321/140	—	2725	150-190		40
	1945	AREA CD TRW	MDT/STG	NC	71/170 131/180 144/30	—	2540	300-400	FEW TOPS 420 50 SC 9112	45
22	2045	AREA CD RW	WK/MDT	NC	47/150 310/110	50 W	2630	170-200		45
	2045	AREA CD TRW	MDT/STG	—	80/165 126/175 127/45	—	2635	300-350		45
22	2145	AREA CD RW	WK	—	41/155 67/130 315/85 320/175	—	2725	150-190		40
	2145	AREA CD TRW	MDT	—	91/90 97/160 135/175	—	2830	210-320		45
22	2245	AREA CD RW	WK	NC	40/185 80/125 97/50 318/170	—	2720	150-200		40
	2245	AREA CD TRW	MDT	NC	87/90 92/150 111/200 118/100	—	2725	260-360		40
22	2345	AREA CD RW	WK	—	36/150 66/100 318/165	—	2625	160-180		40
	2345	AREA CD TRW	MDT	NC	81/100 87/175 112/140	—	UNKN	UNKN		45
23	0045	AREA CD RW	WK	+-	280/170 38/150	50 W	2530	160-200		45
23	0145	AREA CD RW	WK/MDT	+-	51/145 267/125 342/165	—	2625	140-230		45
23	0245	AREA CD RW	MDT	+	41/155 263/145 325/140 360/150	—	2625	170-250		45

00-0063 - 2396 (02/77)

Type of Radar / Type de Radar: AVSRC (5.7 cm)

Officer-in-Charge / Agent Responsable: _____

To: MAES