A

TORNADO PROJECT SUMMARY SHEET

F=0 NB

1. DATE AND TIME 4. 7. 1957 AFTERNOON

2. LOCATION OR PATH (attach map)
5 MI S. OF BURNT CHURCH

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

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; (7) noise resembling heavy transport truck.

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.)
1 3/4 TO 2 INCH DIAMETER HAILSTONES.

10. TOTAL DAMAGE ESTIMATE $ U

11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE

13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES

WATER RESOURCES DATA AND DEVELOPMENT IN NEW BRUNSWICK. L.V. BRANDON. DEPT of NATURAL RESOURCES, FREDERICTON 1967

FREDERICTON GLEANER, SAT. JULY 9, 1960
FREDERICTON GLEANER, FRI JULY 5, 1957

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

(a) Eyewitness reports indicated a funnel 100 to 200 ft long, and 20 to 40 ft in diameter "resembling a cat's tail".

(b) A PATH OF UPROOTED TREES, AND DEMOLISHED AN ABANDONED SCHOOLHOUSE.

Fredricton Gleaner Saturday July 9 1960 tornado
Storm Dates: Thursday July 4 1957
Between Friday July 1st to Sunday July 3rd 1960

Tornado Chances Slight Says Weatherman....But

By DICK HUGHES
Daily Gleaner Staff Writer

The possibility of a tornado striking Fredericton is 1,000,000 to one yet . . .

In 1957, a twister splintered a school building at Barryville, N. B., 14 miles north east of Chatham.

Recently funnel clouds — tornado infancy — were reported in the Grand Falls area.

Last weekend, a small but damaging tornado exploded a woodshed at New Market, N.B., and tore roofs off several other buildings.

What would happen if an adult tornado sucked through Fredericton? The answer can only be guessed by reviewing distruction caused other areas which have experienced the "churning whirlpools".

In 1953, a tornado cut through eastern and central Massachusetts killing 90 and injuring over 1000. Damage was estimated in the vicinity of $50,000,000. Prior to that, a cyclone moved through Missouri, Illinois and Indiana taking 689 lives. Well over 10,000 persons have been killed in the past 60 years.

LOCAL OFFICER

Few people in this area have witnessed a tornado; only a handful have seen the devastation left in one's wake. Robert Dickison, meteorologist in charge of the Fredericton Weather Office, however, has. Mr. Dickison was on the scene just hours after the tornado ripped apart the deserted school house at Barryville. After viewing the scene, he wrote a detailed report; part of which follows:

"July 4, 1957, cold front moved across New Brunswick from the north-west. At the time of maximum convective heating, its position was near Chatham. Chatham showed a frontal passage accompanied by a light thundershower.

At approximately the same time, a small scale tornado cut a five mile swath through the woodland near Barryville, 14 miles north-east of Chatham and destroyed a deserted school building. Later hail was experienced at Burnt Church, 19 miles north of Chatham. Some of the hailstones had diameters reaching two inches.

CLEAR DAY

Eyewitness reports indicated that the tornado funnel was 100 to 200 feet long, 20 to 40 feet in diameter, and resembled a cat's tail. The sky had been otherwise clear, but hail had passed half an hour previously.

The dark funnel was capped by twin debris-haze clouds of small dimensions. It moved at the speed of a fast walk and was accompanied by a noise resembling the near passage of a heavy transport truck.

The tornado lifted the building from its foundation, rotated it one half turn, and dropped it 40 feet away. Other pieces of it were taken several hundred yards. In the tornado's path where it had continued, were large trees ripped from their foundations.

The odds against this city being hit are confidence provoking. But even Mr. Dickison can not say that last week's funnel cloud was not an ominous suggestion of more to come.

Fredricton Gleaner July 5 1957

Storm Date: Thursday July 4 1957

Tornado

TWISTER STRIKES MIRAMICHI

CHATHAM — A freak thunder-and-lightning storm, apparently accompanied by a small twister, yesterday afternoon wrecked havoc in the Miramichi area. The "twister" hit the small community of Barryville, 15 miles from Chatham, and in its wake the old Barryville school house, recently used as a meeting hall, was completely demolished. Parts of the building were lifted and tossed like matches into nearby woods.

The windstorm seemed quite confined, as a house close to the old school escaped undamaged.

Early last evening a small thunder and lightning storm, possibly connected with the twister, struck a small area at Black River Bridge, also near Chatham. This storm was accompanied by about an inch of hail.

BARN BURNED

Lightning set fire to a hay-filled barn owned by Mrs. J. Archibald MacNaughton of Fredericton.

The Provincial Forest Service was called, as was the Chatham fire department, but nothing could be done to save the building.

Lightning also struck a nearby house, owned by Fred Cameron, situated about three or 400 yards away. Entering through the electric wiring, the lightning shattered a light in the house, blasted a hole in the floor of the building and entered the cellar. No fire was caused by the bolt.

At about the same time, lightning entered the home of Lee McLenaghan, going through the telephone wires. A small fire started at the telephone, but quickly extinguished. It was also reported that the bolt knocked down a horse in McLenaghan's back yard.

WORKSHEET

IDTO 04957-01

① ORIGIN x 20325500
y 5226400

② LIFT-OFF x_1 20332200
y_1 5224800

③ $(x_1 - x)$ = 6700

④ $(y - y_1)$ = 1600

⑤ Standard Error S_x

C = 102

⑥ Standard Error S_y

C = 102

⑦ DAMAGE LENGTH

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

③+④ [→r,θ] = 6888

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

[x↔y] = 13

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

⑤+⑥ [→r,θ] = 144

⑩ $\beta = \frac{\tan^{-1} S_L}{L}$

⑦+⑨ [→r,θ]
[x↔y] = 1°

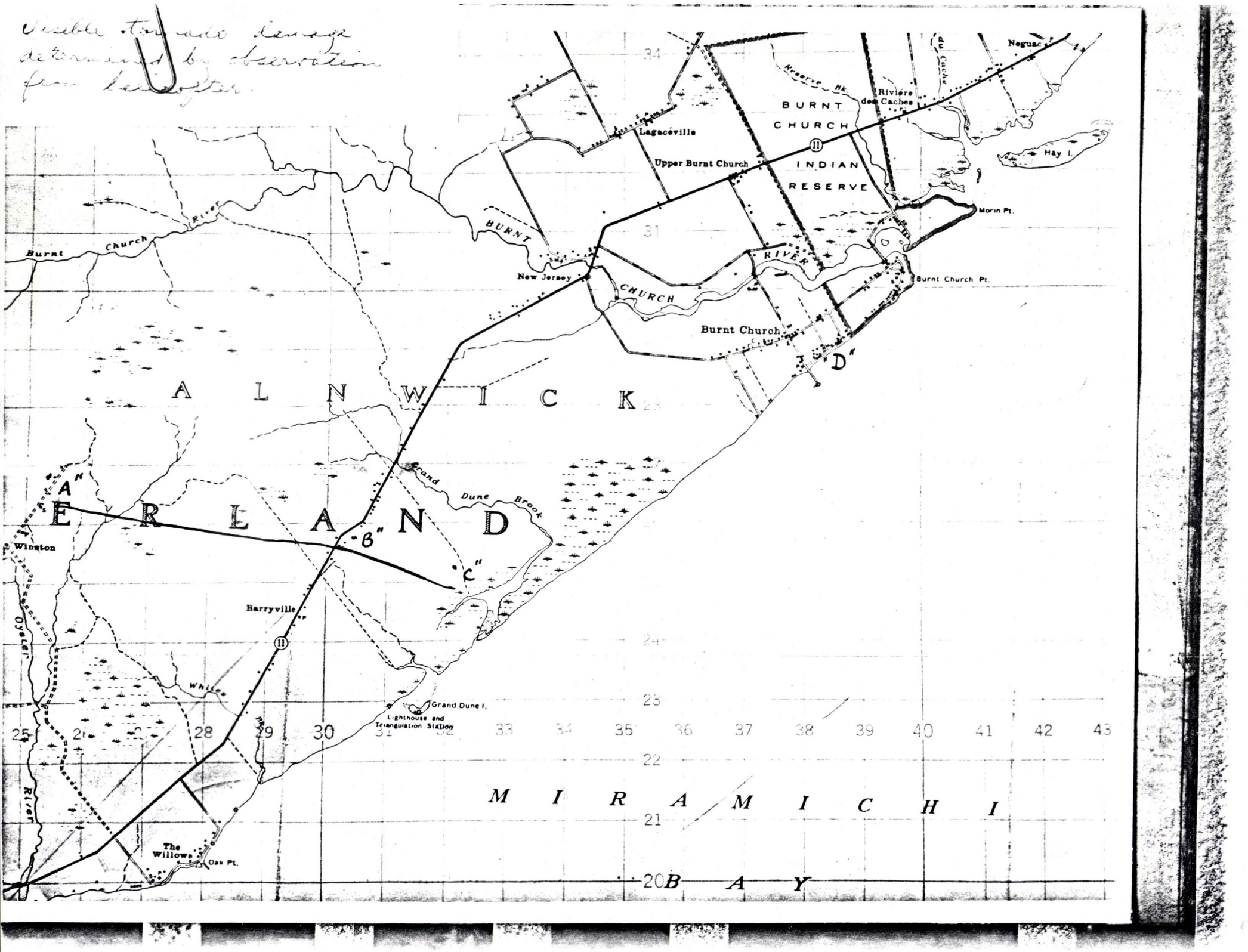
NE quad $\phi = 90 - \alpha$

~~NW~~ quad $\phi = 270 + \alpha$

SW quad $\phi = 270 - \alpha$

SE quad $\phi = 90 +$

⑪ ϕ = 283


Visible storm tide damage determined by observation from helicopter.
Neguac
Reserve Bk.
Riviere des Caches
BURNT CHURCH INDIAN RESERVE
Lagacéville
Upper Burnt Church
Hay I.
Morin Pt.
Burnt Church River
BURNT CHURCH RIVER
New Jersey
Burnt Church Pt.
Burnt Church
A L N W I C K
E R L A N D
"A"
"B"
"C"
"D"
Grand Dune Brook
Winston
Barryville
Oyster River
Whites Brook
Grand Dune I.
Lighthouse and Triangulation Station
The Willows
Oak Pt.
M I R A M I C H I
B A Y
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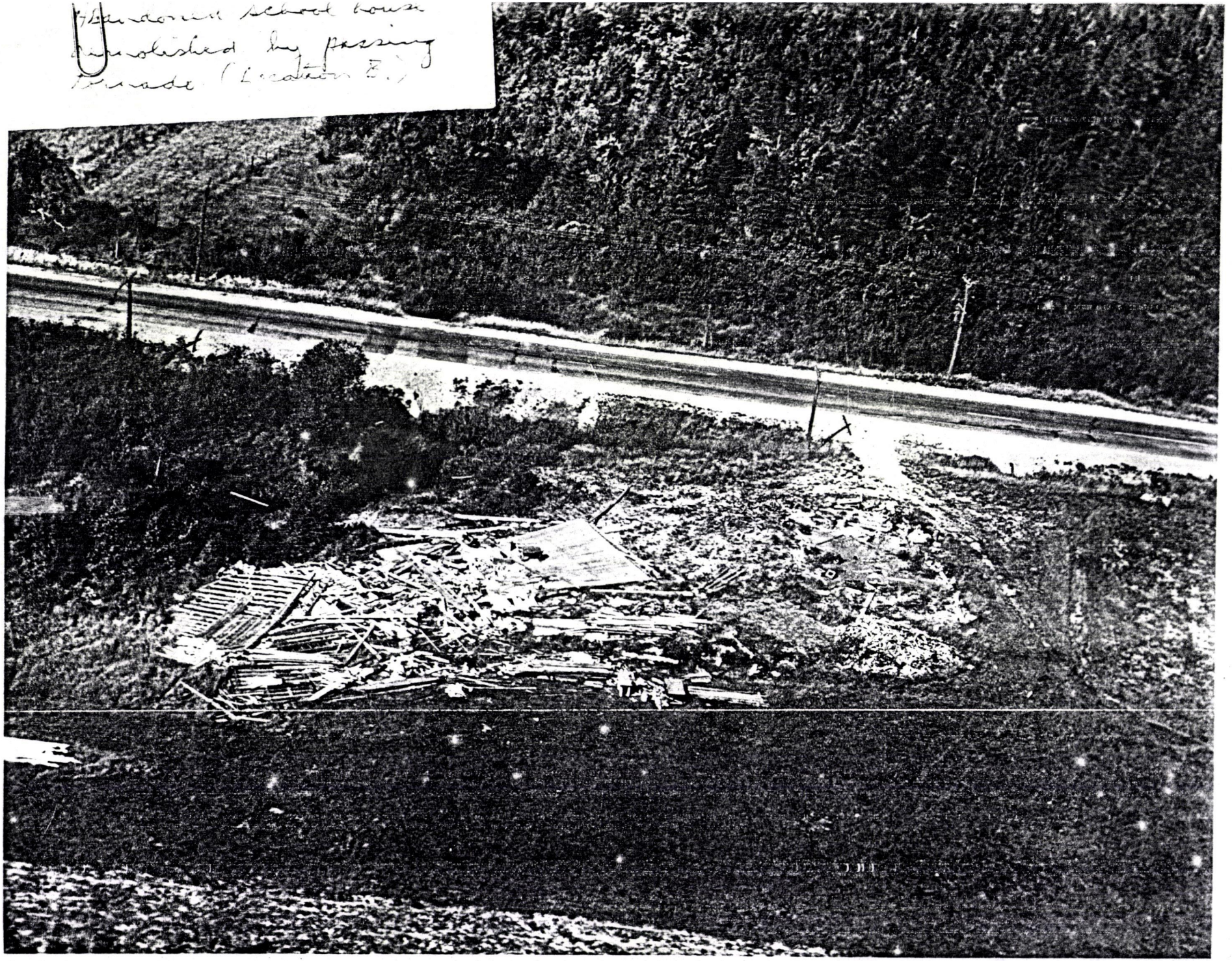
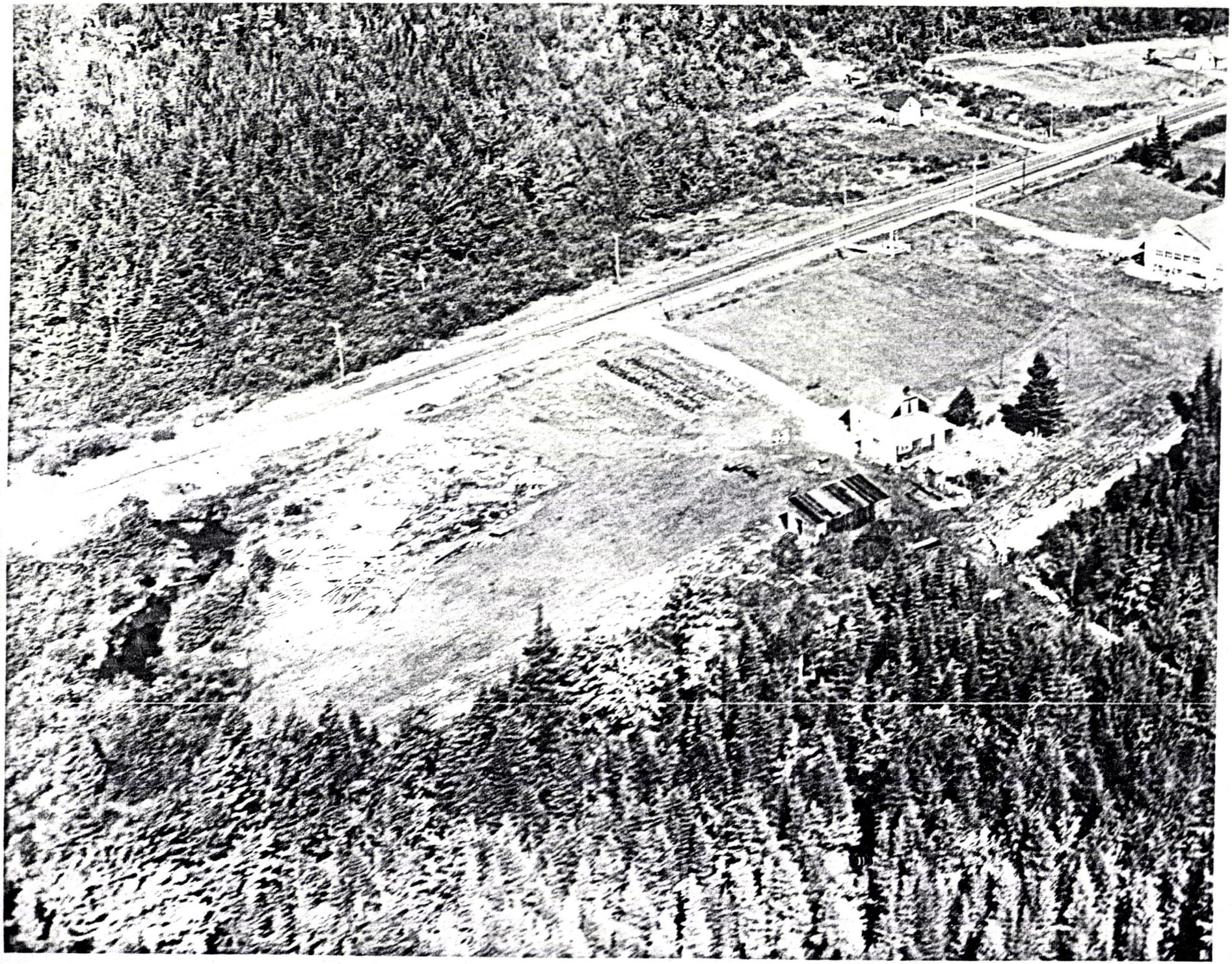
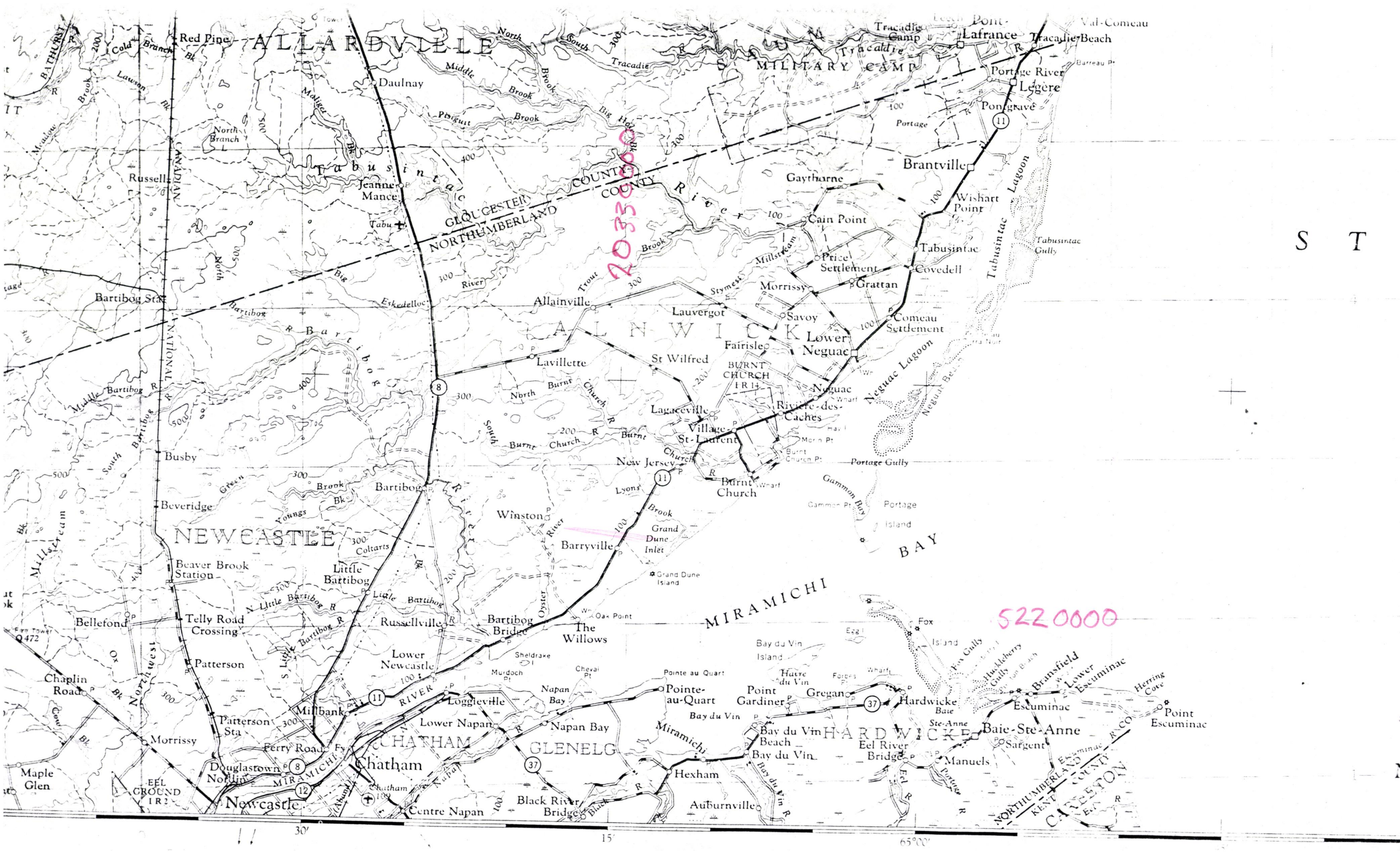
Henderson school house demolished by passing tornado (Location E.)





Swath of uprooted trees caused by tornado passage. (Between A and B on photograph of map.)





ALLARDVILLE
Red Pine
Daulnay
Tabusintac
Jeanne Mance
Russell
GLOUCESTER COUNTY
NORTHUMBERLAND COUNTY
Bartibog Sta
Allainville
Lavillette
ALNWICK
Lauvergot
Fairisle
St Wilfred
Lower Neguac
Savoy
Morrissy
Grattan
Price Settlement
Cain Point
Gaythorne
Brantville
Wishart Point
Tabusintac
Covedell
Comeau Settlement
Neguac
Rivière-des-Caches
Lagaceville
Village-St-Laurent
Burnt Church
New Jersey
Busby
Bartibog
Beveridge
Winston
Barryville
NEWCASTLE
Beaver Brook Station
Little Bartibog
Bellefond
Telly Road Crossing
Russellville
Bartibog Bridge
The Willows
Patterson
Lower Newcastle
Chaplin Road
Millbank
Loggieville
Lower Napan
Napan Bay
Pointe-au-Quart
Patterson Sta
Morrissy
Ferry Road
CHATHAM
Chatham
GLENELG
Hexham
Maple Glen
Douglastown
Nordin
Newcastle
Centre Napan
Black River Bridge
Auburnville
Bay du Vin
Point Gardiner
Gregan
Hardwicke
Bay du Vin Beach
HARDWICKE
Eel River Bridge
Manuels
Baie-Ste-Anne
Sargent
Escuminac
Bransfield
Lower Escuminac
Point Escuminac
CARAQUET
MIRAMICHI BAY
Portage Island
Grand Dune Inlet
Grand Dune Island
Fox Island
Val-Comeau
Tracadie Beach
Portage River
Légère
Pointe-Lafrance
Tracadie Camp
MILITARY CAMP
Tabusintac Lagoon
Neguac Lagoon
Portage Gully
Gammon Bay
Miramichi River
Oyster River
Millstream
Trout Brook
Big Hole Brook
Middle Brook
North Branch
Bartibog River
Eskedeloc River
Pisiguit Brook
Maliget Bk
Lawson Bk
Cold Branch
Meadow Brook
Green Brook
Youngs Bk
Coltarts
Little Bartibog
Lyons Brook
Burnt Church
Sheldrake I
Murdoch Pt
Cheval Pt
Oak Point
Napan Bay
Pointe au Quart
Miramichi
Black River Bridge
Bay du Vin Island
Hardwicke Baie
Ste-Anne
Eel River Bridge
Herring Cove
Escuminac
Bransfield
Lower Escuminac
Point Escuminac
Huckleberry Gully
Fox Gully
Eel Ground IR 2
Burnt Church IR 14
Tabusintac Gully
Portage
Barreau Pt
Gammon Pt
Burnt Church Pt
Morin Pt
Hay I
Wharf
Oak Point
Sheldrake I
Murdoch Pt
Cheval Pt
Napan Bay
Pointe au Quart
Bay du Vin
Miramichi
Eel R
Portage
Escuminac R
Kent County
Northumberland County
Canadian National
Northwest
Bathurst
Fire Tower
Millstream
South Bartibog R
Middle Bartibog R
Little Bartibog R
N Little Bartibog R
S Little Bartibog R
Bartibog R
Eskedeloc R
Big River
Pisiguit Brook
Middle Brook
North Branch
Tabusintac R
Portage
Tracadie
Tracadie R
Big Hole Brook
Trout Brook
Millstream
Stymest
Burnt Church R
North Burnt Church R
South Burnt Church R
Lyons Brook
Oyster River
Miramichi River
Napan R
Black R
Bay du Vin R
Eel R
Escuminac R
Herring Cove
Huckleberry Gully
Fox Gully
Gammon Bay
Portage Gully
Tabusintac Gully
Neguac Beach
Neguac Lagoon
Tabusintac Lagoon
Val-Comeau
Tracadie Beach
Portage River
Légère
Pointe-Lafrance
Tracadie Camp
Tracadie
Big Hole Brook
Middle Brook
North Branch
Pisiguit Brook
Maliget Bk
Lawson Bk
Cold Branch
Meadow Brook
Green Brook
Youngs Bk
Coltarts
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Lyons Brook
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Bransfield
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Point Escuminac
Huckleberry Gully
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Kent County
Northumberland County
Canadian National
Northwest
Bathurst
Fire Tower
Millstream
South Bartibog R
Middle Bartibog R
Little Bartibog R
N Little Bartibog R
S Little Bartibog R
Bartibog R
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Tabusintac R
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Tracadie R
Big Hole Brook
Trout Brook
Millstream
Stymest
Burnt Church R
North Burnt Church R
South Burnt Church R
Lyons Brook
Oyster River
Miramichi River
Napan R
Black R
Bay du Vin R
Eel R
Escuminac R
Herring Cove
Huckleberry Gully
Fox Gully
Gammon Bay
Portage Gully
Tabusintac Gully
Neguac Beach
Neguac Lagoon
Tabusintac Lagoon
2033000
5220000
30'
15'
65°00'

On July 4, 1957, a small tornado near Burnt Church in Northumberland County left a path of uprooted trees and demolished an abandoned schoolhouse, while 1 3/4-inch hailstones fell from associated thunderstorms. In the summer of 1960 roofs were ripped off several buildings by a small tornado at New Market in York County. On July 22, 1961, a hailstorm with stones up to 2 1/4-inches diameter swept through the Keswick Ridge area of York County, causing extensive injury to 75,000 bu. of apples. Earlier in the same month hailstorms on the 5th and 12th caused fruit damage in Carleton County.

In July 1963, a small tornado in eastern Carleton County uprooted and snapped off trees and demolished several abandoned farm buildings.

On September 21, 1965, a tornado in Victoria County demolished several dwellings at California Settlement, miraculously causing no serious injuries.

On May 22, 1966, a severe hail and rainstorm in Victoria County caused extensive damage to newly planted potato fields, much of it by erosion from the flash rains.