B

TORNADO PROJECT SUMMARY SHEET

F=0

1. DATE AND TIME — Sat July 2 or Sun July 3rd '60

2. LOCATION OR PATH (attach map) — New Market NB

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

4. PATH 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;

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

10. TOTAL DAMAGE ESTIMATE $

11. TOTAL DEATHS

12. TOTAL INJURED

13. TOTAL HOMELESS

14. LIST ALL REFERENCES

Fredricton Gleaner Sat July 9 '60

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

- a small but damaging tornado exploded a woodshed at New Market N.B. and tore roofs

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.

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.

WORKSHEET

IDTO 04960-01

① ORIGIN x 1966 2000

y 5076000

⑤ Standard Error S_x

0 = 1000

② LIFT-OFF x_1

y_1

⑥ Standard Error S_y

③ $(x_1 - x) =$

④ $(y - y_1) =$

⑦ DAMAGE LENGTH

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

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

③+④ $\boxed{\rightarrow r, \theta}$ =

$\boxed{x \leftrightarrow y}$ =

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

⑤+⑥ $\boxed{\rightarrow r, \theta}$ =

⑩ $\beta = \dfrac{\tan^{-1} S_L}{L}$

⑦+⑨ $\boxed{\rightarrow r, \theta}$

$\boxed{x \leftrightarrow y}$ =

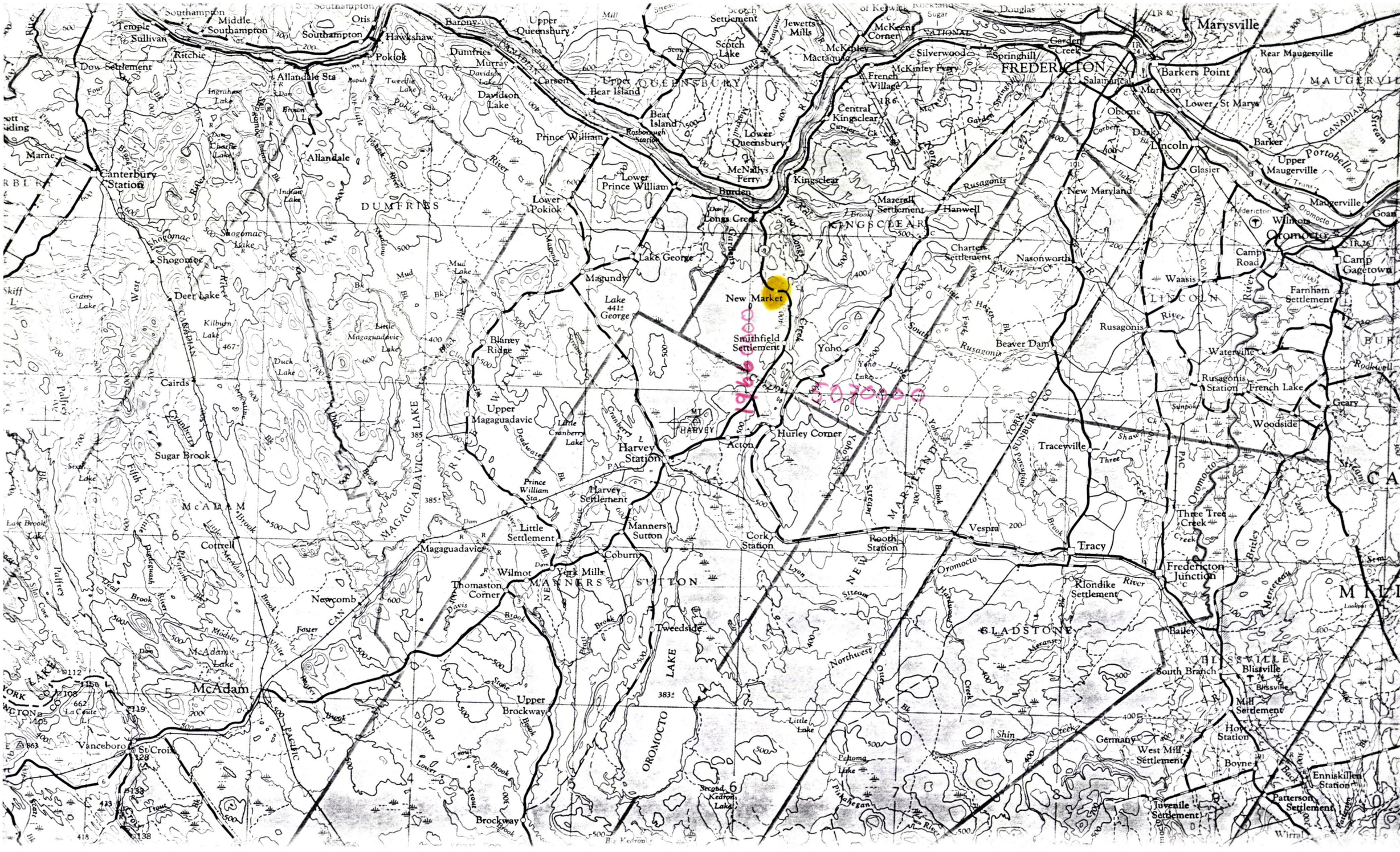
NE quad $\phi = 90 - \alpha$

NW quad $\phi = 270 + \alpha$

SW quad $\phi = 270 - \alpha$

SE quad $\phi = 90 +$

⑪ $\phi =$


New Market
Lake George
Lake
Forest
Southampton
Middle Southampton
Temple
Sullivan
Otis
Hawkshaw
Pokiok
Ritchie
Dow Settlement
Allandale Sta
Allandale
Canterbury Station
Marne
Barony
Upper Queensbury
Dumfries
Murray
Davidson Lake
Carsons
Upper Bear Island
Bear Island
Roxborough Station
Prince William
Lower Queensbury
Scotch Settlement
Scotch Lake
Jewetts Mills
McKeens Corner
McKinley
Mactaquac
Silverwood
Springhill
FREDERICTON
Marysville
Rear Maugerville
Barkers Point
Salamanca
Morrison
Lower St Marys
MAUGERVILLE
French Village
McKinley Ferry
Central Kingsclear
Kingsclear
McNallys Ferry
Lower Prince William
Burden
Lower Pokiok
DUMFRIES
Longs Creek
KINGSCLEAR
Mazerall Settlement
Hanwell
New Maryland
Lincoln
Glasier
Barker
Upper Maugerville
Maugerville
Oromocto
Camp Road
Camp Gagetown
Nasonworth
Charters Settlement
Lake George
Magundy
Lake 441
Deer Lake
Grassy Lake
Kilburn Lake
Shogomoc
Shogomoc Lake
Waasis
LINCOLN
Farnham Settlement
Rusagonis
Beaver Dam
Waterville
Rusagonis Station
French Lake
Geary
Woodside
Rockwell
Blaney Ridge
Smithfield Settlement
Yoho
Yoho Lake
Cairds
Duck Lake
Little Magaguadavic Lake
Upper Magaguadavic
Little Cranberry Lake
Harvey Station
MT HARVEY
Acton
Hurley Corner
Tracyville
YORK
SUNBURY
Sugar Brook
McADAM
Cottrell
Prince William Sta
Harvey Settlement
Manners Sutton
Little Settlement
Magaguadavic
Coburn
Cork Station
Rooth Station
Vespra
Tracy
Three Tree Creek
Wilmot
York Mills
MANNERS SUTTON
Thomaston Corner
Newcomb
Tweedside
Klondike Settlement
Fredericton Junction
SLADSTONE
Bailey
Blissville
South Branch
Mill Settlement
Hoyt Station
Germany
West Mill Settlement
Boyne
Enniskillen Station
Patterson Settlement
Juvenile Settlement
McAdam
Vanceboro
St Croix
Upper Brockway
Brockway
Lower Trout Brook
OROMOCTO LAKE
Second Kedron Lake
Little Lake
Ichtoma Lake
Pishagan
Shin Creek
Northwest
Otter
Meduxnekeag
Oromocto
Maguaguadavic
Magaguadavic Lake
Cranberry L
Deadwater
Lyon Stream
Hardwood
Mersereau
Birtley
Pacific
Canadian
Portobello Stream
Saint John
Trans-Canada
Fifth Lake
Sixth Lake
Little McAdam Brook
Dead Brook
Pleasant River
Pugwash
Silver Cove
Lake Brook
Modsley L
McAdam Lake
White
Fowler
Stone
Davis Brook
Trout Brook
Pisarinco
Wirral
Bk
Brook
Creek
River
Stream
Lake
Dam
Ch
Ck
Mt
L
R
Sta
Jct
IR 24
IR 26
IR 40
IR 6
IR 10
Pac
Can