

1022

O. H. M. S.

**GEODETTIC SERVICE OF CANADA
DEPARTMENT OF MINES AND RESOURCES
OTTAWA, CANADA**

Astronomic Control Points
Ungava and East Coast Hudson Bay

1946

T.H. Manning

[v.2]



Technical Report
Astronomic Control Points
T.H. Manning 1946

#3	Gilmour Island	N.W.T.
10	Kikkerteluk River	P.Q.
68	Farmer Island	N.W.T.
	Cambridge Bay Victoria Island	N.W.T.
10	Cape Weggs	P.Q.
12	Korak Bay	P.Q.
13	Kovik River	P.Q.
14	Swaffield Hbr. Mansel Is.	N.W.T.
15	Cape Acadia Mansel Is.	N.W.T.
17	Kinglet Lake	P.Q.



1944 - POINT 3 - GILMOUR ISLAND

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:) Tent:)	59°48'32".7	80°05'43".2
Tablet:) Beacon:)	59 48 32.3	80 05 42.6

This station was near the head of a long, winding bay on the south side of one of the northern Ottawa Islands, believed to be Gilmour Island. The islands are high and rocky, and the highest point on Gilmour Island may well be 1,800 feet, as given by Robert Bell and A.R. Gordon.

The observation position is marked by the tent in the photograph.

A Geodetic Service bronze tablet was cemented in solid rock 2 feet north of a 5-foot beacon on a small rock knoll. It was 49 feet on azimuth 139° from the observation station.

From the beacon to the end of the point to the northeast is about 200 feet. Three painted white stripes radiate from the beacon.

The R.O. was at the head of a small brook at the head of the main bay. It was distant 2,575 feet on azimuth 38°57'.

The magnetic station was distant 96 feet from the observation station in line with and away from the R.O., the azimuth of which was 38°57'.

T.H. MANNING

To accompany 1946 photographs.

1944 - Point 3 - Gilmore I.

(For description see 1944 report. Photographs 4295.1 and 4295.2 taken 9, July, 1946; remainder, 16, July. All except 4295.1 taken with 5 $\frac{1}{2}$ " focal length lens.)

○ marks position of tablet & beacon.



N.E.
3,000 ft.

4295.1

Arrow points to R.O.



S.S.W.
3,000 ft.

4295.2

1944 - Point 3 - Gilmour I.



West
4,000 ft.

4295.3

4295.3



West
4,000 ft.

4295.4

4295.4

1944 - Point 3 - Gilmour I



S.W.
4,000 ft.

4295.5

4295.5

Upper
arrow
points to
dot mark-
ing tablet;
lower to
R-6



South
4,000 ft.

4295.6

4295.6

1944 - Point 3 - Gilmaur I.

Arrow
points to
dot mark-
ing tablet.



S.E.
4,000 ft.

42957

4295.7

East
4,000 ft.



42958

1944 - Point 3 - Gilmour I.



E. N. E.
4,000 ft.

4295.9

4295.9



N. E.
4,000 ft.

4295.10

4295.10

1944 - Point 3 - Gilmour I.



N. N. E.
4,000 ft.

0511

1944 - POINT 10 - KIKKERTELUK RIVER

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	58°00'27".7	77°11'45".0
Tablet:	58 00 27.2	77 11 44.0
Tent:	58 00 27.8	77 11 45.2

This station was on a small isthmus at the west side of the bay into which flows the Kikkerteluk River. The bay is well delineated under the title LAND LOCKED HARBOUR on Robert Bell's map made from his survey of this coast in 1877. It appears to be an excellent harbour for schooners or perhaps larger vessels. There was an Eskimo camp on the opposite side of the bay. Hills in the immediate vicinity of the fix rise to 650 feet, and higher hills can be seen close by.

The tent shown in photographs 68 and 77 was 12 feet from the observation station on azimuth 315°. In photograph 75, the position of the tent is shown on a conspicuous grass patch.

A Geodetic Service bronze tablet was cemented in solid rock 73 feet from the observation station on an azimuth of 130°.

A 6-foot beacon was built 3 feet past the tablet and is shown in photographs 73, 74.

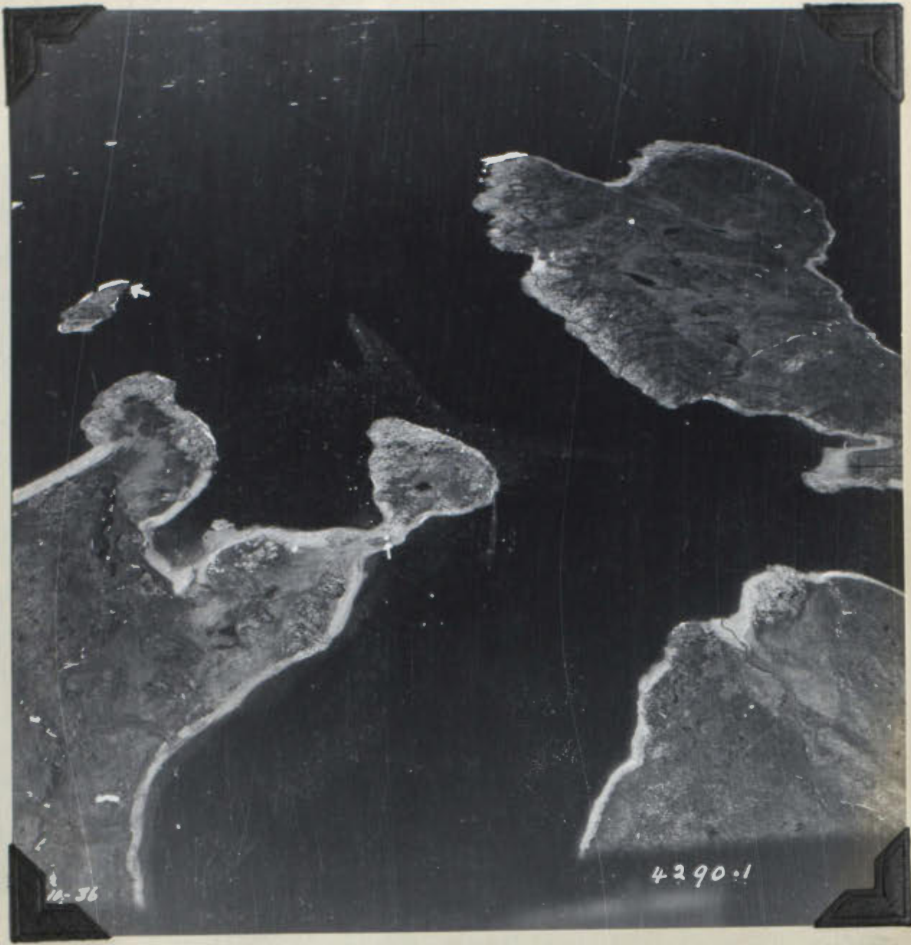
The R.O. was at the extreme north point of a small island at a moderate tide such as in photograph 74. The azimuth of the R.O. was 228° 00' and it was distant 5,416 feet.

The magnetic station was distant 100 feet from the observation station, and in line and towards the R.O., the azimuth of which was 226° 58'. Bell gives the variation here as 31° 30' W (Geol. Survey 1879).

1944 - Point 10 - Kikkerteluk River

(For description see 1944 report. Photographs taken 9, July 1946, with 5" focal length lens.)

Lower arrow points to dot marking beacon and tablet; upper arrow to R.O.



West
4,000 ft.

4290.1



N.W.
4,000 ft.

4290.2

1944 - Point 10 - Kikkerteluk River



W.N.W.
4,000 ft.

4290.3

4290.3



Lower
arrow
pointsto
dot mark-
ing beacon;
upper to
R.C.

4290.4

S.W.
4,000 ft.

4290.4

1944 - Point 10 - Kikkorteluk River



South
4,000 ft.

4290.5

4290.5



S. S. E.
4,000 ft.

4290.5a

4290.5a

1944 - Point 10 - Kikkerteluk River



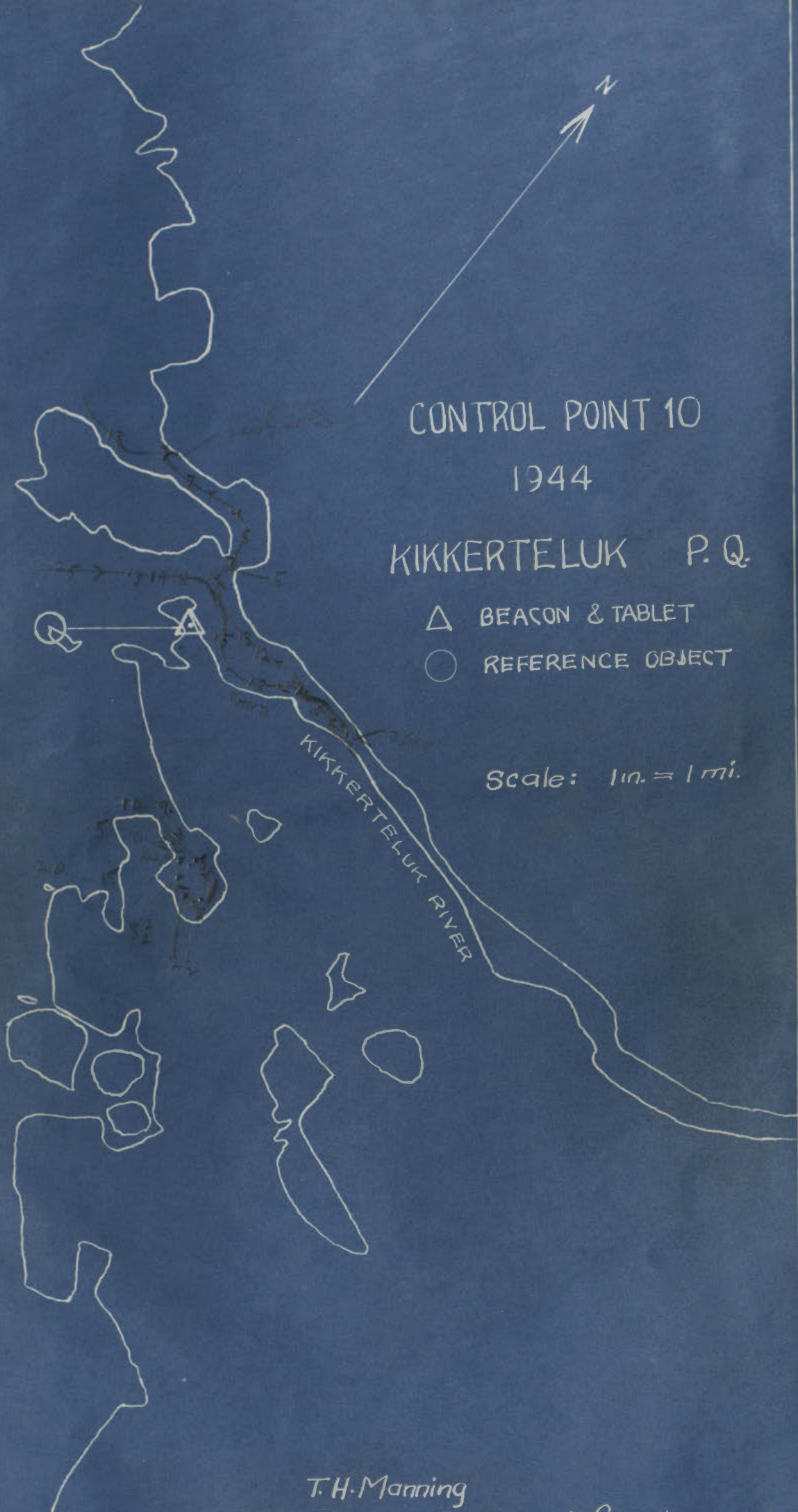
S. F.
4,000 ft.

4290.6

4890.6



4290.7



T.H. Manning
Geodetic Service of Canada

1944 - POINT 68 - FARMER ISLAND

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	58°24'57".9	80°47'05".6
Tablet:)	58 24 58.4	80 47 05.6
White Mark:)		

This station was at the north end of a small uncharted island which has been named Farmer Island. The highest point in the island was near the observation station and was about 45 feet.

From the top, the only land visible was a small rock-like island about 10 miles to the south. The observation was taken on a small pebble beach facing east below the hill.

A Geodetic Service bronze tablet was cemented into a small vertical rock face comprising the S.E. side of the hill, being in azimuth 360° from the instrument and 50 feet distant. The tablet was marked by a white Y painted on the rock. In the accompanying photographs this shows as a V.

The R.O. was the right hand point of the left hand island guarding the harbour. Its azimuth was 41°50', but no time was taken to obtain the distance as this was an extra fix of unknown use.

The accompanying sketch is without assistance of measured distances or angles.

T.H. MANNING

To accompany 1946 photographs.

1946 - Farmer Island

(For description see 1944 report.
Photographs taken 16, July 1946
with 5" focal length lens.)

S.E.
4,000 ft.



4294.1

4294.1

Tablet
marked by
△
Circle
surrounds
second
island.



South
4,000 ft.

R9-46

4294.2

4294.2



East
4,000 ft.

4294.3
A7-48

4294.3



Arrow
points
to R.O.

N.E.
4,000 ft.

4294.4
A7-49

4294.4

1944 - Farmer Island

Tablet
marked by

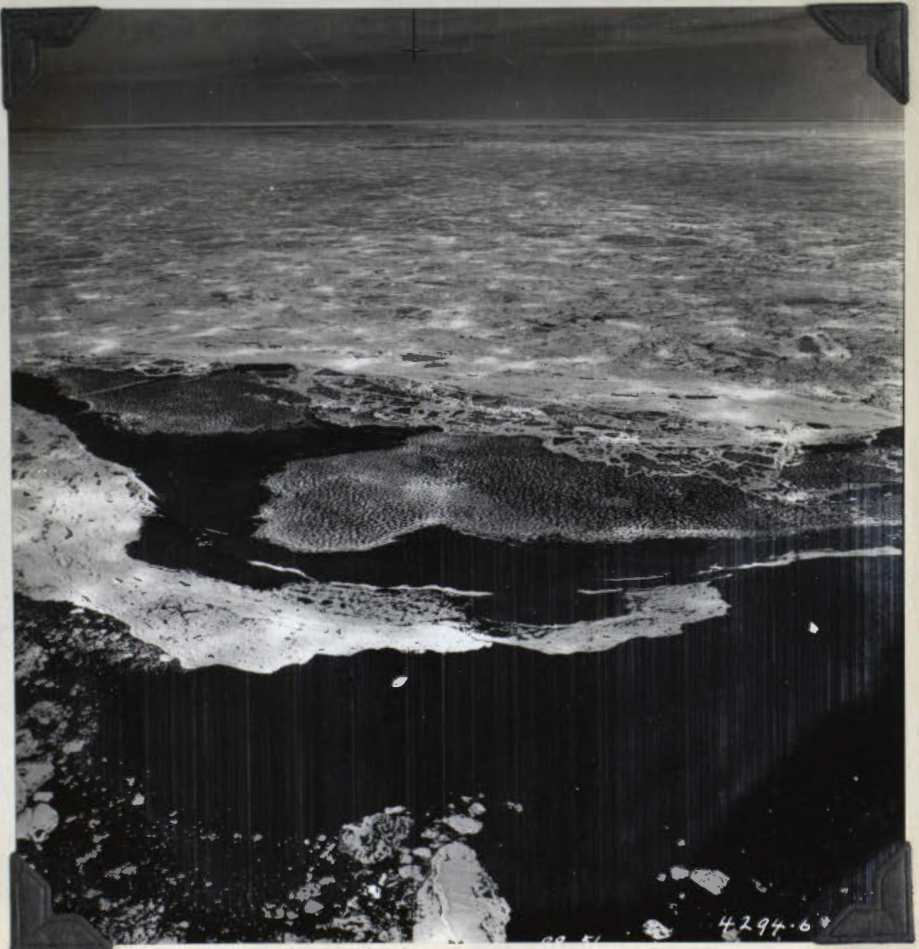
Lower
arrow
points to
R.O.;
upper to
Ottawa I. (?)

North
4,000 ft.



4294.5

N.W.
~~xxxx~~
4,000 ft.



4294.6

1944 - Farmer Island



West
4,000 ft.

R9-52

4294.7

4294.7



West
4,000 ft.

R9-53

4294.8

1944 - Farmer Island



4294.9
R9.54

S.W.
4,000 ft.

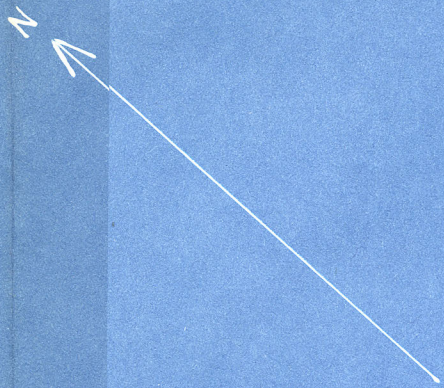
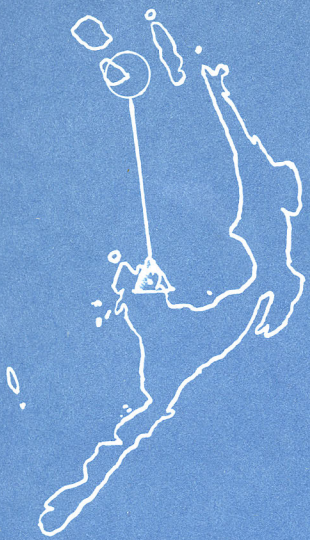
4294.9



4294.10

S.S.W.
4,000 ft.

4294.10

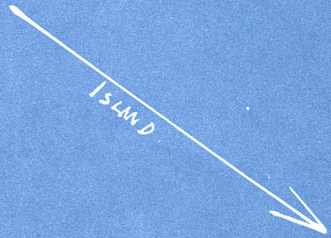
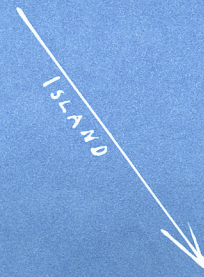


FARMER ISLAND N.W.T.

△ TABLET

○ REFERENCE OBJECT

Scale: 1 inch = 1 mile



T.H. Manning
Geodetic Service of Canada

CAMBRIDGE BAY, VICTORIA ISLAND

1946

Observed Position: Latitude: $69^{\circ}07'15''.64$
Longitude: 105 00 43.80

Tablet Position: Latitude: $69^{\circ}07'15''.38$)
Longitude: 105 00 43.14)

Map: National Topographic Series. Cambridge Bay sheet.

Monument: A Geodetic Service bronze tablet was wedged into a large, almost buried, igneous boulder about 25 feet southeast of the southeast corner of the R.C.M. Police barracks. The tablet was 35 feet distant on azimuth $140^{\circ}30'$ from the observing instrument.

Date: March 22-23; 24-25.

Identification is given here and on the accompanying sheets of photographs.

Equipment: Tavistock Theodolite No. 360. Chronometer No. 13609. Stop Watch T.S. No. 2660.

Observation Data: Ball's Method: 12 sets of stars.
WWV time signal.

Description of Observation Station: The observation station was 10 feet from the southwest corner of the R.C.M. Police barracks which bore $351^{\circ}30'$ from the instrument.

Reference Objects: (1) The nearest corner of the Hudson's Bay Company's dwelling bore $244^{\circ}19'$ from the instrument. (2) The mast of the R.C.N. St. Roch bore $219^{\circ}45'$ from the instrument.

Surrounding Country: The surrounding country consists of low ridges of disintegrated limestone above which Mount Pelly rises conspicuously.

Photographs: The photographs were taken with an R.C.A.F. type F24 camera with a focal length of lens 5.0 inches.

T.H. Manning
Geodetic Service of Canada
Ottawa

Cambridge Bay 1946 Observation Station



Arrow points to tablet.



Cambridge Bay 1946



Left arrow points to observation station.

Right arrow points to the R.O.(2).



Cambridge Bay 1946



R.C.M. Police barracks.



Arrow points to tablet.

POINT 10 - CAPE WEGGS, P.Q. - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	62°23'29".91	73°33'25".50
Tablet Position:	62 23 28.51	73 33 24.48
Beacon Position:	62 23 29.68	73 33 24.95
Magnetic Station:	62 23 28.70	73 33 27.33

Map: National Topographic Series. Hudson Strait West.

Monument: A Geodetic Service bronze tablet was cemented into solid rock. The tablet was 150 feet distant on azimuth $161^{\circ}16'$ from the observing instrument. A 6-foot beacon was built 35 feet from the observing instrument on azimuth 132° . The beacon and 3 rays extending from it were white-washed.

Date: August 28 - 29.

Identification: is given here and on the accompanying sketch map and sheets of photographs.

Sketch Map: The sketch map was plotted from photographs by the perspective grid method.

Equipment: Tavistock Theodolite No. 380.

Observation Data: Ball's Method. Eight sets of stars. WWV time signals were taken before, during and after the observation.

Description of Observation Station: The observation station was in a bay about 6 miles southeast of Cape Weggs. It was on a sand beach about 30 feet above high tide limit. The right (east) end of a small island shown on the National Topographic map bore $70^{\circ}21''$ true. Mud flats extend to this island at low water.

Reference Object: The reference object was the east point of the bay at high water (see photograph 4390.6). It bore $82^{\circ}37'$ true. The centre of Outer Island bore $70^{\circ}51'$.

Magnetic Observations: Six magnetic observations were taken. The azimuth of the magnetic reference object was $35^{\circ}06.7'$ from the magnetic instrument. The magnetic instrument was 150 feet distant from the observation instrument, and in line with and away from the magnetic R.O.

Surrounding Country: Off the points the water is deep, but the bays are filled with mud and large boulders which are left drying at low tide. On land there are rocky hills from 600 to 1,000 feet, separated by marshy valleys.

Photographs: The air photographs were taken with an R.C.A.F. type F24 camera with a focal length of 5 inches.

T.H. Manning
Geodetic Service of Canada
Ottawa

1946 - Point 10 - Cape Weggs, P.Q.

(Ground photographs taken Aug. 28; air photographs on Sept. 10)



4390.1

North. Tent and beacon.

4390.2

Arrow
points
to
beacon.



South
4,000 ft.

4390.3

4390.3

1946 - Point 10 - Cape Weggs.



South
4,000 ft.

4390.4

4390.4

Arrow
points to
beacon



4390.5

South

4390.5

1946 - point 10 - Cape Weggs

△ marks
beacon;
arrow
points
to R.O.



E.N.E.
4,000 ft.

4390.6

Arrow
points
to
beacon



North
4,000 ft.

4390.7

1946 - Point 10 - Cape Wegga



N.W.
4,000 ft.

4390.8

4390.8



W.N.W.
4,000 ft.

4390.9

4390.9

CAPE WEGGS



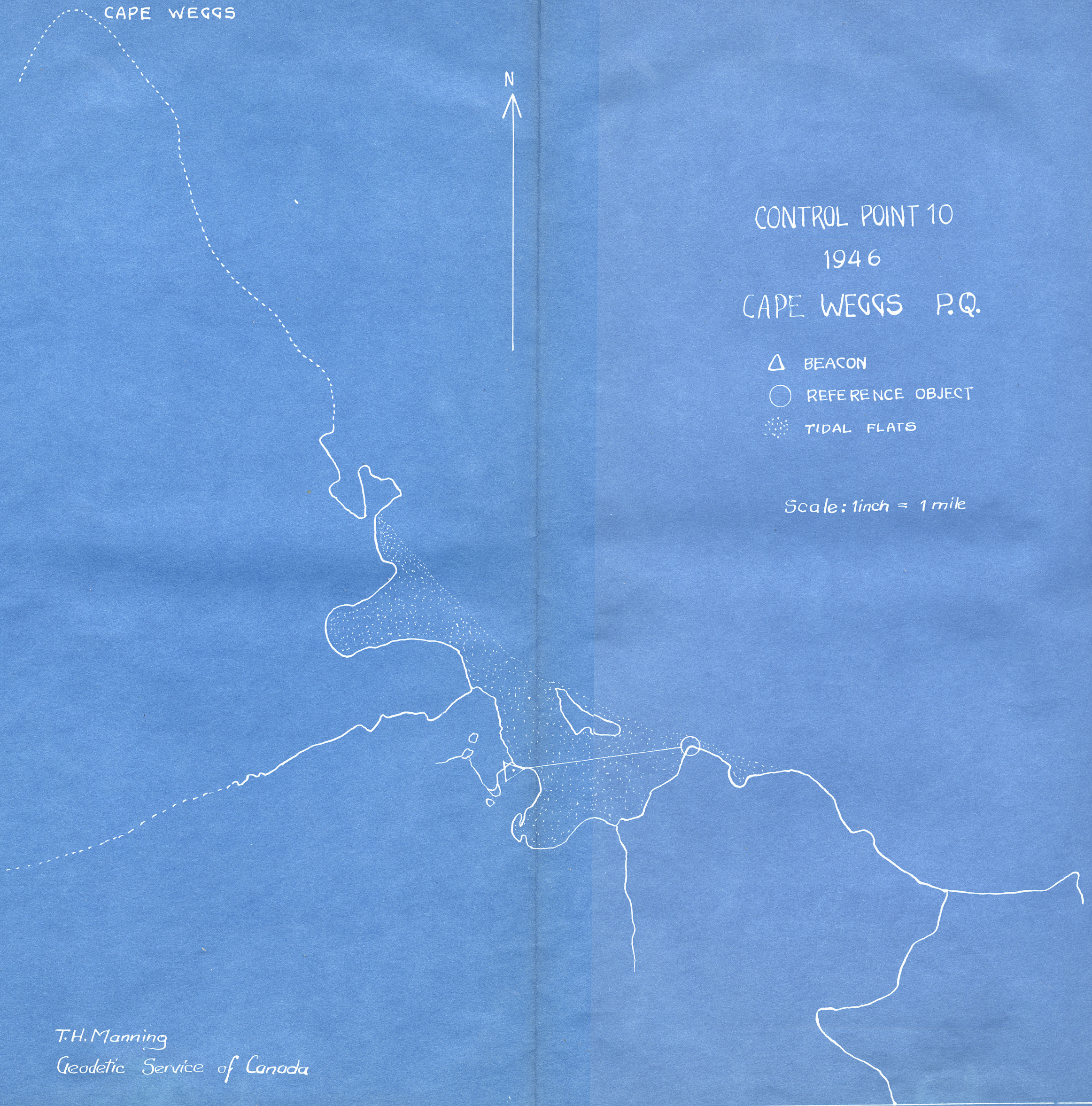
CONTROL POINT 10

1946

CAPE WEGGS P.Q.

- △ BEACON
- REFERENCE OBJECT
- TIDAL FLATS

Scale: 1 inch = 1 mile



T.H. Manning
Geodetic Service of Canada

Point 12 - KORAK BAY, P.Q. - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	60°45'02".45	77°40'08".25
Tablet Position:	60 45 01.97	77 40 08.25
R.O. Position:	60 45 32.5	77 41 19.4

Map: National Topographic Series. Cape Smith Sheet.

Monument: A Geodetic Service bronze tablet was cemented into solid rock beside a 6-foot white-washed beacon with 3 white-washed rays extending from it. The tablet was 44 feet distant on azimuth 180° from the observing instrument.

Date: Night of August 8 - 9 .

Identification: is given here and on the accompanying sketch map and sheets of photographs.

Sketch Map: The sketch map was plotted from photographs by the perspective grid method.

Equipment: Tavistock Theodolite No. 380.

Observation data: Ball's Method. Seven sets of stars. WWV time signal, before, during and after observation.

Description of Observation Station: The observation station was about 1600 feet from the end of a long, narrow point, the southernmost of three similar points between Korak River and the Cape Smith Range. The coast-line from Korak Bay to Agnes Smith Point was without large indentations.

Reference Object: The reference object was a large rock on the western end of a small island marked in photograph 4386.7. It was distant 4700 feet on azimuth 311°12'. The southern end of Cape Smith bore approximately 265° true.

Magnetic Observations: No magnetic observations were taken.

Altitude of Station above Sea Level: About 15 feet.

Surrounding Country: To the southwest the land is low and flat. Korak Bay is the southernmost of three inlets separated by long, narrow points. These inlets are continued on the land as well-marked valleys separated by rather abrupt and narrow ridges which, near the coast, rise to about 150 feet. To the north they become higher, and the Cape Smith Range could be plainly seen.

Photographs: The photographs were taken with an R.C.A.F. type F24 camera, focal length 5 inches.

T.H. Manning
Geodetic Service of Canada
Ottawa

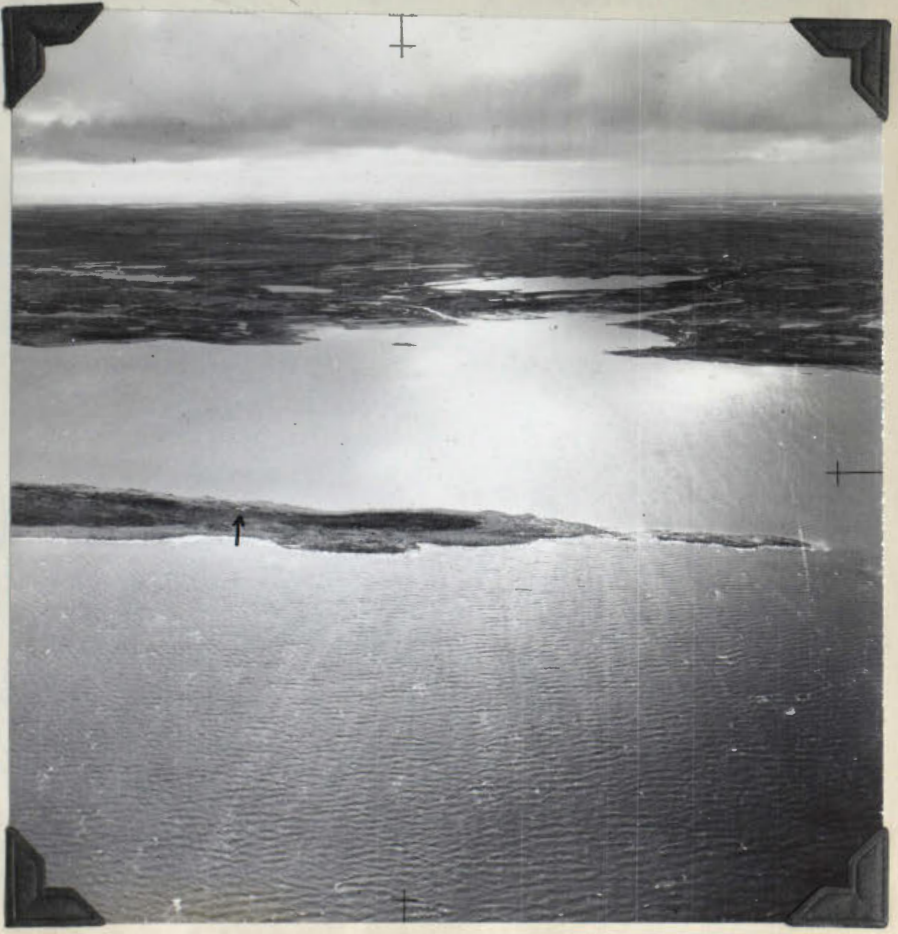
1946 - Point 12 - Korak Bay
(Photographs taken 12, Sept.)



South
1,000 ft.

4386.1

Arrow
points
to beacon
and tablet



S.E.
1,000 ft

4386.2

1946- Point 12 -- Korak Bay



N.E.
1,000 ft.

4386.3



East
1,000 ft.

4386.4

1946 - point 12 - Korak Bay



N.W.
1,000 ft.

4386.5

UPPER
arrow
points to
R.O.;
lower to
beacon.



N.W.
1,000 ft.

4386.6

1946 - Point 12 - Korak Bay



N.W.
1,000 ft.

4386.5



UPPER
ARROW
points to
R.O.;
lower to
beacon.

N.W.
1,000 ft.

4386.6

Left
arrow
points to
beacon;
right to
R.O.



West
1,000 ft.

4386.7



S.S.W.
1,000 ft.

4386.8

1946 - Point 12 - Korak Bay

South
1,000 ft.



4386



CONTROL POINT 12
1946

KORAK BAY P.Q.

- △ BEACON & TABLET
- REFERENCE OBJECT

Scale: 4 inches = 1 mile.

T.H. Manning
Geodetic Service of Canada

POINT 13 - KOVIK RIVER, P.Q. - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	61°35'07".65	77°51'16".75
Tablet Position:	61 35 07.59	77 51 16.04
R.O. Position:	61 34 36.68	77 53 28.45
Magnetic Station:	61 35 07.3	77 51 19.3

Map: National Topographic Series. Cape Smith Sheet.

Monument: A Geodetic Service bronze tablet was cemented into a boulder about 4 feet in diameter. Beside it was built a 6-foot white-washed beacon with 3 white-washed rays extending from it. The tablet was 35 feet distant on azimuth 100° from the observing instrument.

Date: Night of August 11-12.

Identification: is given here and on the accompanying sheets of photographs including a photostat of the high altitude survey photograph 1 - 2084 L - 7823. The position of the station can be clearly seen on the Cape Smith sheet.

Equipment: Tavistock Theodolite No. 380.

Observation Data: Ball's Method. Eight sets of stars. WWV time signal before, during and after observation.

Description of Observation Station: The observation station was on the isthmus of a point jutting westwards on the south side of the mouth of Kovik River. This point is clearly shown on the National Topographic map.

Reference Object: The reference object was the extremity of the point shown on photograph 4387.4. It was distant 7120 feet on azimuth 253°47'.

Magnetic Observations: Three magnetic observations were taken. The azimuth of the magnetic reference object was 253°40'.2 from the magnetic instrument. The magnetic instrument was 130 feet distant from the observation instrument and in line with and towards the magnetic R.O.

Surrounding Country: Hills in the immediate vicinity do not rise more than about 100 feet above the sea. They are rounded and inconspicuous in outline. There are no well-marked valleys. Some of the hills are probably morainic, and boulders cover the country, but rock in situ shows in places.

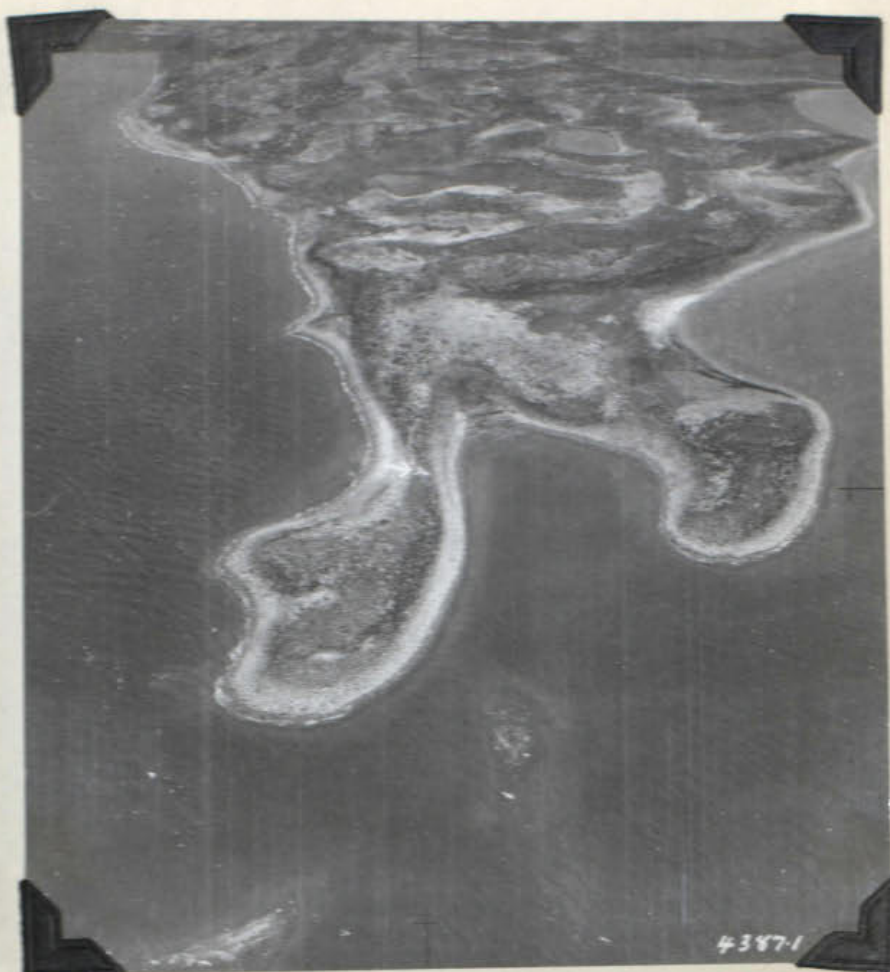
Photographs: The photographs were taken with an R.C.A.F. type F24 camera, focal length 5 inches.

T.H. Manning
Geodetic Service of Canada
Ottawa

1946 - Point 13 - Kovik River

(Photographs taken 12, Sept.)

Arrow points
to beacon
& tablet



S. East
1,000 ft.

4387.1



North

4387.2

4387.4



4387.4

S.W. 1,000 ft.

Upper arrow points to H.O.I. tower to beacon.

4387.3



4387.3

S.W. 1,000 ft.

1946 - Point 13 - Kowik River

1946 - Point 13 - Kovik River

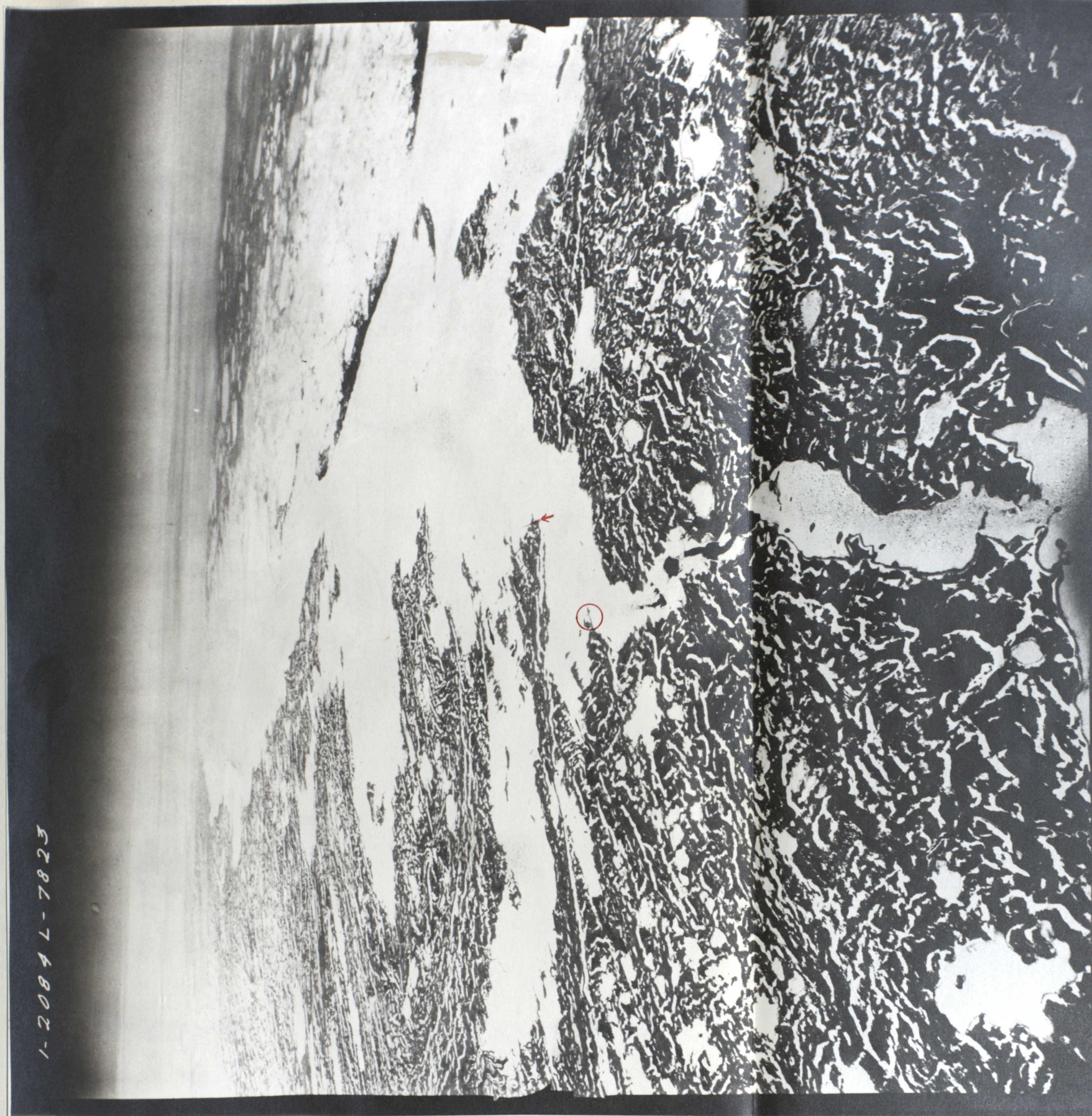


S.E.
1,000 ft.

4387.5

4387.5

point 13 - 1946 - Kovik River, P.Q.



1-2084 L-7823

Observation station is at centre of red circle.
Arrow points to reference object.

POINT 14 - SWAFFIELD HARBOUR, MANSEL ISLAND - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	62°22'49".96	79°44'09".00
Tablet Position:	62 22 50.48	79 44 09.51
Magnetic Station:	62 22 48.0	79 44 15.1

Name: Swaffield Harbour was named for Mr. A.T. Swaffield who was in charge of the Hudson's Bay Company's post there some ten years ago.

Map: National Topographic Series. Hudson Strait West.

Monument: A Geodetic Service bronze tablet was cemented into the southeast corner of the concrete foundation of the unfinished Department of Transport Radio building. The tablet was 65 feet distant on azimuth 324° from the observing instrument.

Date: Night of August 21 - 22.

Identification: is given here and on the accompanying sketch map and sheets of photographs.

Sketch Map: The sketch map was plotted from photographs by the perspective grid method.

Equipment: Tavistock Theodolite No. 380.

Observation Data: Ball's Method. 7 sets of stars. WWV time signals were taken before, during and after the observation.

Description of Observation Station: The observation station was on the west side of the harbour at the north end of Mansel Island. The south-west corner of the unfinished Department of Transport building was 65 feet distant on azimuth 324° and the north-east corner of the main Hudson's Bay Company's building 210 feet distant on azimuth 230° (see photograph 4389.3.) It bore 53°14' from the observing station.

Magnetic Observations: Four magnetic observations were taken. The azimuth of the magnetic reference object was 55°00'.3 from the magnetic instrument. The magnetic instrument was 350 feet distant from the observation instrument, and in line with and away from the magnetic R.O.

Surrounding Country: The surrounding country consisted of raised beaches of disintegrating limestone. The highest ground within 2 miles of the harbour was not over 100 feet. Further inland it may reach 200 feet, but not more. There is a very little marshy grassland at the head of the harbour, and along the shore to the west. Otherwise the limestone is bare.

Photographs: The photographs were taken with an R.C.A.F. type F24 camera with a focal length of 5 inches.

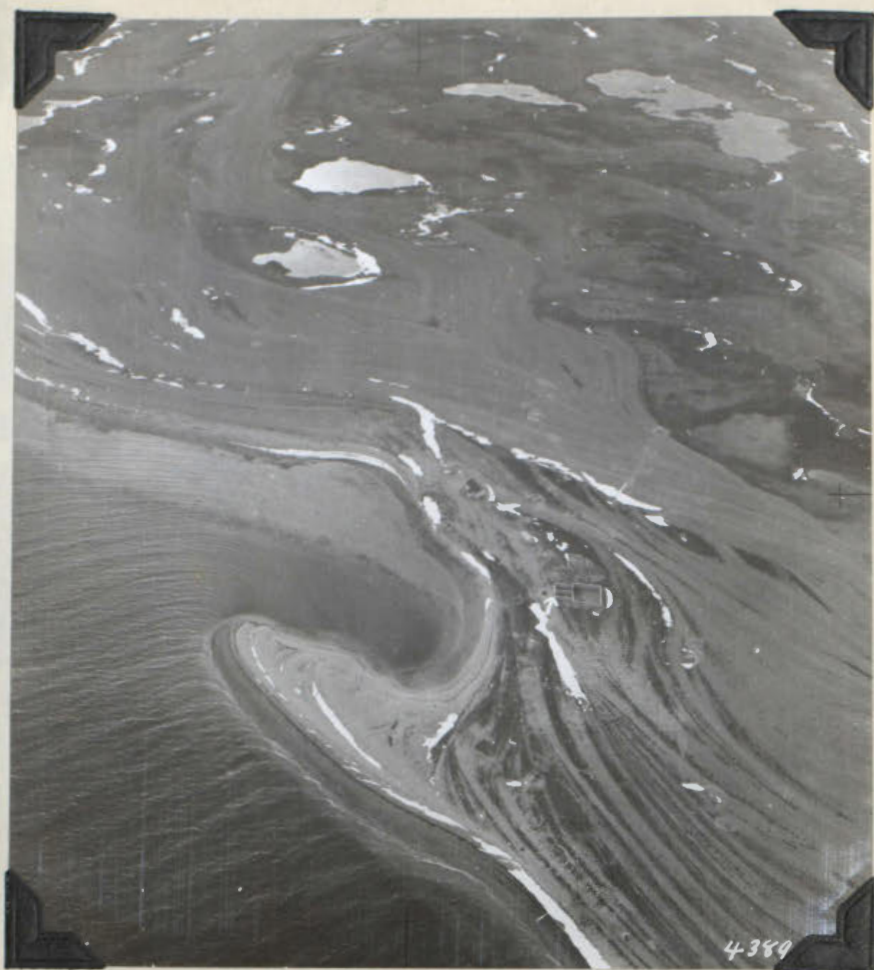
T.H. Manning
Geodetic Service of Canada
Ottawa

1946 - Point 14 - Swaffield Harbour

Neg at Geodetic

(Photographs taken 12, Sept.)

Arrow
points
to corner
of build-
ing where
tablet
placed.



South
1,000 ft.

4389

4389.1



E.S.E.
1,000 ft.

4389.2

4389.2

Upper
arrow
points to
R.O.;
Lower to
tablet.



N.E.
1,000 ft.

4389.3



North
1,000 ft.

4389.4



N.W.
1,000 ft.

4389.5

4389.5



West
1,000 ft.

4389.6

4389.6

1946 - Point 14 - Swaffield Harbour

S. 1/4
1,000 ft.



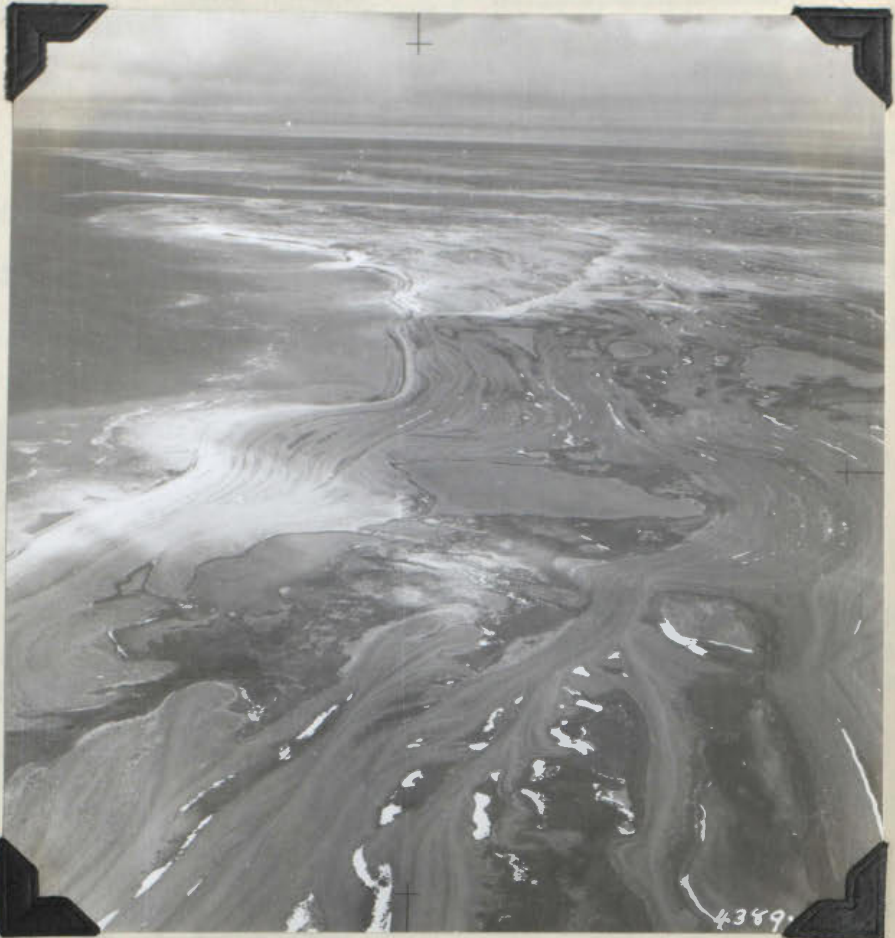
4389.7

South



4389.8

1946 - Point 14 - Swaffield Harbour



East
1,000 ft.

4389

4389.9



North
1,000 ft.

R.V. 24

4389-10

4389.10

POINT 15 - CAPE ACADIA, MANSEL ISLAND - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Position:	61°35'05".79	79°51'03".58
Tablet Position:	61 35 06.57	79 51 04.85
R.O. Position:	61 34 33.85	79 51 26.51
Magnetic Station:	61 35 06.24	79 50 59.57

The southern cape of Mansel Island has been named Cape Acadia after the C.G.S. "Acadia" from which the coast of the island was mapped in 1914 by Captain Anderson.

Map: National Topographic Series. Cape Smith Sheet.

Monument: A Geodetic Service bronze tablet was cemented into a 200-pound boulder partially buried along side a beacon made from 2 white-washed 45-gallon petrol drums filled with gravel. Three rays extending from the beacon were white-washed on the surrounding gravel. The tablet was 100 feet distant on azimuth 322° from the observing instrument.

Date: Night of August 18 - 19.

Identification: is given here and on the accompanying sheets of photographs.

Sketch Map: The sketch map was plotted from photographs by the perspective grid method.

Equipment: Tavistock Theodolite No. 380.

Observation Data: Ball's Method. Six sets of stars. WWV time signals were taken before, during and after the observation.

Description of Observation Station: The observation station was on the west coast of Mansel Island about 1 mile from the extreme south point of the island. It was about 50 feet inland from the northwest shore of a shallow cove.

Reference Object: The reference object was the southeast point of the cove (see photograph 4388.3). It was 3430 feet distant on azimuth 198°55'.

Magnetic Observations: Six magnetic observations were taken. The azimuth of the magnetic reference object was 76°41'.8 from the magnetic instrument. The magnetic instrument was 200 feet distant from the observation instrument, and in line with and towards the magnetic R.O.

Surrounding Country: The surrounding country consisted of disintegrated limestone beaches among which were lakes and marsh land. The country was so flat that elevations of 10 or 15 feet were remarkable.

Photographs: The photographs were taken with an R.C.A.F. type F24 camera, with a focal length of 5 inches.

1946 - Point 15 - Cape Acadia

(Ground photographs taken 18, Aug.; air, 12 Sept.)



East

4388.1

4388.2

Beacon and tent.

Upper
arrow
points
to R.O.;
lower to
beacon &
tablet.



South
1,000 ft.

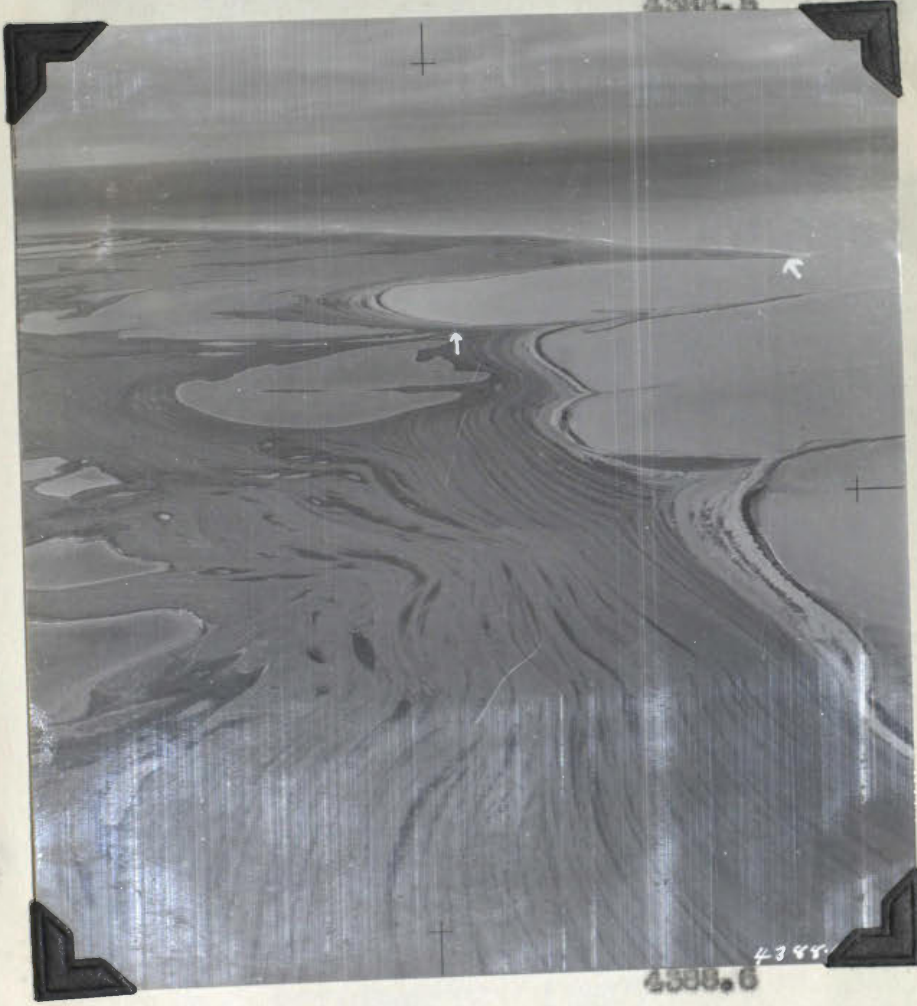
4388.3

1946 - Point 15 - Cape Acadia



S. SE
1,000 ft

4393.5



Left
arrow
points to
beacon;
right to
R.C.

E. S. E.
1,000 ft.

4394.6

1946 - Point 15 - Cape Acadia

E.N.E.
1,000 ft.



4388.7

East
1,000 ft.



4388.8

1948 - Point 15 - Cape Acadia



West
1,000 ft.

4388-9

4598.0

CONTROL POINT 15

1946

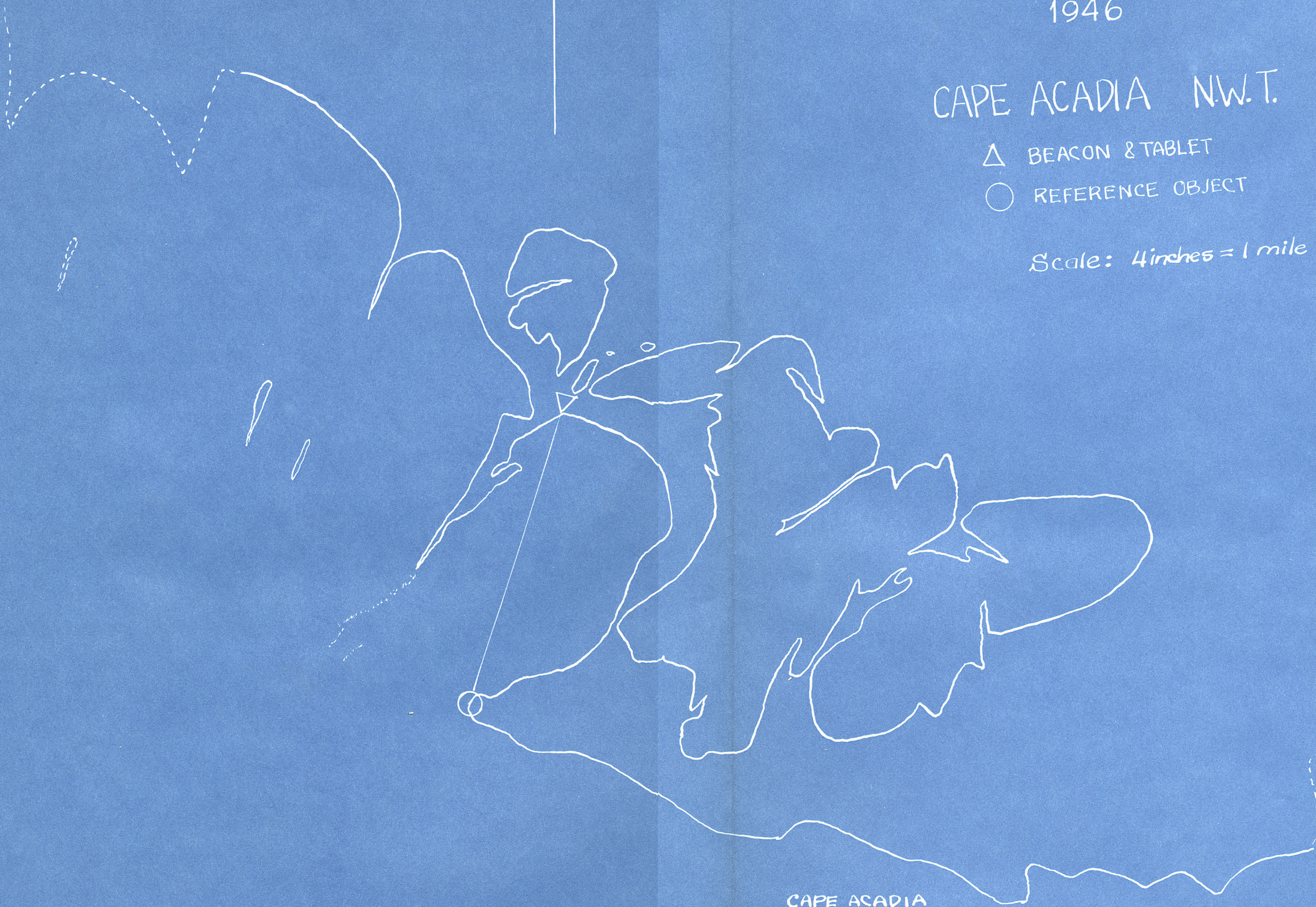
CAPE ACADIA N.W.T.

△ BEACON & TABLET

○ REFERENCE OBJECT

Scale: 4 inches = 1 mile

N



CAPE ACADIA

T.H. Manning
Geodetic Service of Canada

POINT 17 - KINGLET LAKE, P.Q. - 1946

	<u>Latitude</u>	<u>Longitude</u>
Observed Positions:	54°44'22".20	75°06'02".25
Tablet Position:	54 44 23.76	75 06 04.20
R.O.(1) Position:	54 43 47.17	75 07 03.15
Magnetic Station:	54 44 21.1	75 06 01.6

The lake on which the station is situated has been called Kinglet Lake from the number of ruby-crowned kinglets seen there.

Map: National Topographic Series. Lac Bienville sheet.

Monument: A Geodetic Service bronze tablet was cemented into a partially buried boulder. It was 195 feet distant on azimuth 324° from the observing instrument.

Dates: Night of June 28 - 29.

Identification: is given here and on the accompanying sketch map and sheets of photographs.

Sketch Map: The sketch map was plotted from photographs by the perspective grid method.

Equipment: Tavistock Theodolite No. 380.

Observation Data: Ball's Method. Eight sets of stars. WWV time signal before, after and during observation.

Description of Observation Station: The observation station was 15 feet distant from the extreme end of the southeast point of a small island. The island was separated from the north shore of the lake by a strait which at its narrowest was only about 100 feet wide and 3 feet deep.

Reference Object: Reference object (1) was the extreme end of the point shown on photograph No.4384.9. It was 5040 feet distant on azimuth 225°10'. R.O. (2) (photograph No. 4384.11) bore 82°08' from observing station.

Magnetic Observations: Eighteen magnetic observations were taken. The azimuth of the magnetic reference object was 159°51'.1 from the magnetic instrument. The magnetic instrument was 120 feet distant from the observation instrument, the latter being in line with it and between it and the R.O.

Altitude of Station above Sea Level: feet.

Surrounding Country: The surrounding country is rough and boulder-strewn. With several small cliffs and other exposures of solid rock which consists chiefly of grey granites and gneisses. About 1½ miles north-northeast of the station a hill rises 300 or 400 feet above the lake. The highest hills in the vicinity are not above 600 feet above the lake. Most of the country north of the

lake was burnt about 20 years ago. The island and the country to the south is unburnt.

Photographs: The photographs were taken with an R.C.A.F. type F24 camera, focal length, 5 inches.

E.H. Manning
Geodetic Service of Canada
Ottawa

1946 - Point 17 - Kinglet Lake

(Ground photographs taken 3 July; air, 26) June.

East



East

4384.2

4384.3

1946 - Point 17 - Kinglet Lake

△ marks
tent.

N.N.W.
4,000 ft.



N.W.

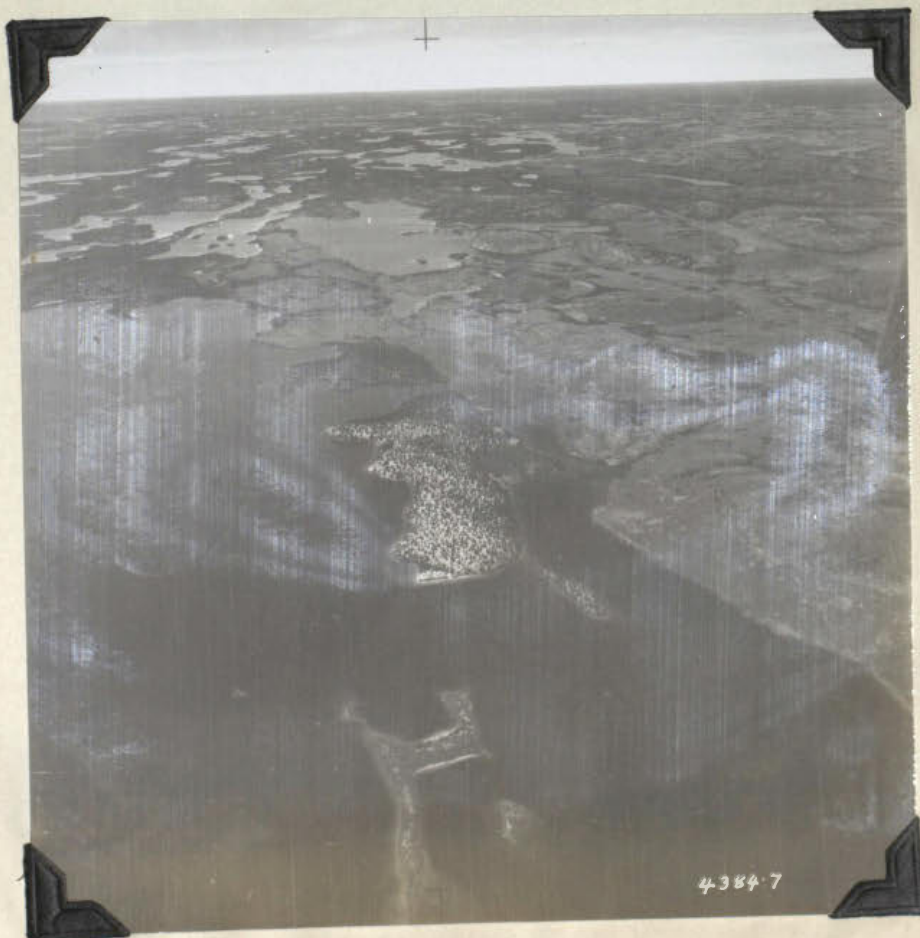


1946 - Point 17 - Kinglet Lake



N.W.
4,000 ft.

4384.6



West
4,000 ft.

4384.7

4384.7

1948 - Point 17 - Kinglet Lake

West
4,000 ft.



4384.8

4384.8

Upper
arrow
point \rightarrow to
R.O. (1);
lower, to
tent.



South
4,000 ft.

4384.9

4384.9

1946 - Point 17 - Kinglet Lake

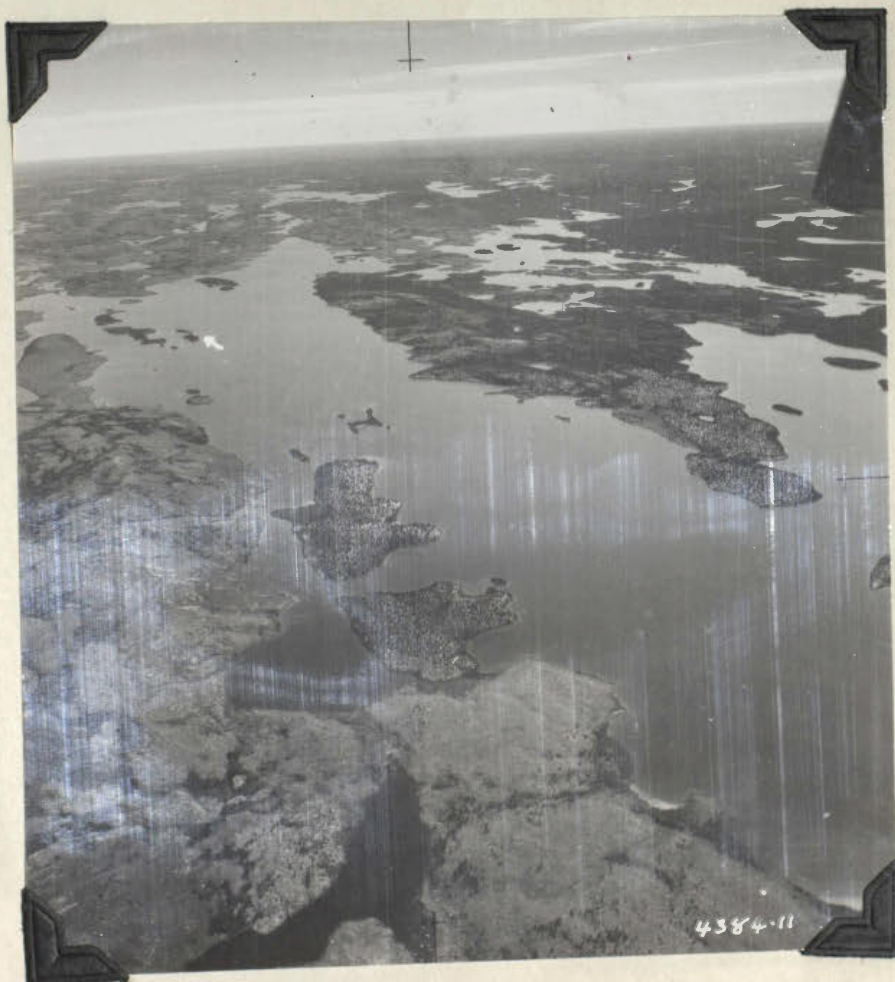


S.E.
4,000 ft.

4384.10

4384.10

Arrow
points to
R.O. (2)



East
4,000 ft.

4384.11

4384.11

1946 - Point 17 - Kinglet Lake

N.E.
4,000 ft.



4384-12

4384.18

Upper
arrow
points to
R.O. (3);
lower to
R.O. (1.)



4384-13

East
4,000 ft.

4384.18



CONTROL POINT 17
1946

KINGLET LAKE

- △ OBSERVING STATION
- REFERENCE OBJECT (1)

Scale: 1 inch = 1 mile.

T.H. Manning
Geodetic Service of Canada