

**ENVIRONMENTAL ATLAS**  
**OF**  
**COASTAL LABRADOR**

**SECTION I**

**Square Island to  
Blanc - Sablon**

**ENVIRONMENTAL EMERGENCY DIVISION**

**ENVIRONMENTAL PROTECTION SERVICE**

**ATLANTIC REGION**

**MARCH 1978**

THIS ENVIRONMENTAL ATLAS OF COASTAL LABRADOR HAS BEEN PREPARED BY B. E. MCGUIRE FOR THE ENVIRONMENTAL EMERGENCIES BRANCH OF THE ENVIRONMENTAL PROTECTION SERVICE, ATLANTIC REGION. THE MAIN PURPOSE OF THE ATLAS IS TO PROVIDE A DOCUMENT WHICH CAN BE USED IN PLANNING FOR AND RESPONDING TO OIL SPILLS ALONG THE COAST OF LABRADOR. BIOLOGICAL, OCEANOGRAPHIC, METEOROLOGICAL AND SOCIO-ECONOMIC DATA HAVE BEEN COMPILED FROM EXISTING SOURCES FOR THE ENTIRE COAST. HOWEVER, SOME EMPHASIS HAS BEEN PLACED ON AREAS CONSIDERED VULNERABLE TO OIL SPILLS. DR. F. C. DUERDEN AND MR. R.J. PERCY WERE SCIENTIFIC ADVISORS FOR THE STUDY. THIS DOCUMENT WAS COMPLETED UNDER DSS CONTRACT NO. OSS77-07006.

EACH SECTION OF THE ATLAS CONTAINS TWO BASE MAPS AND SIX TRANSPARENT ACRYLIC OVERLAYS. THESE OVERLAYS MAY BE USED INDIVIDUALLY OR IN ANY COMBINATION.

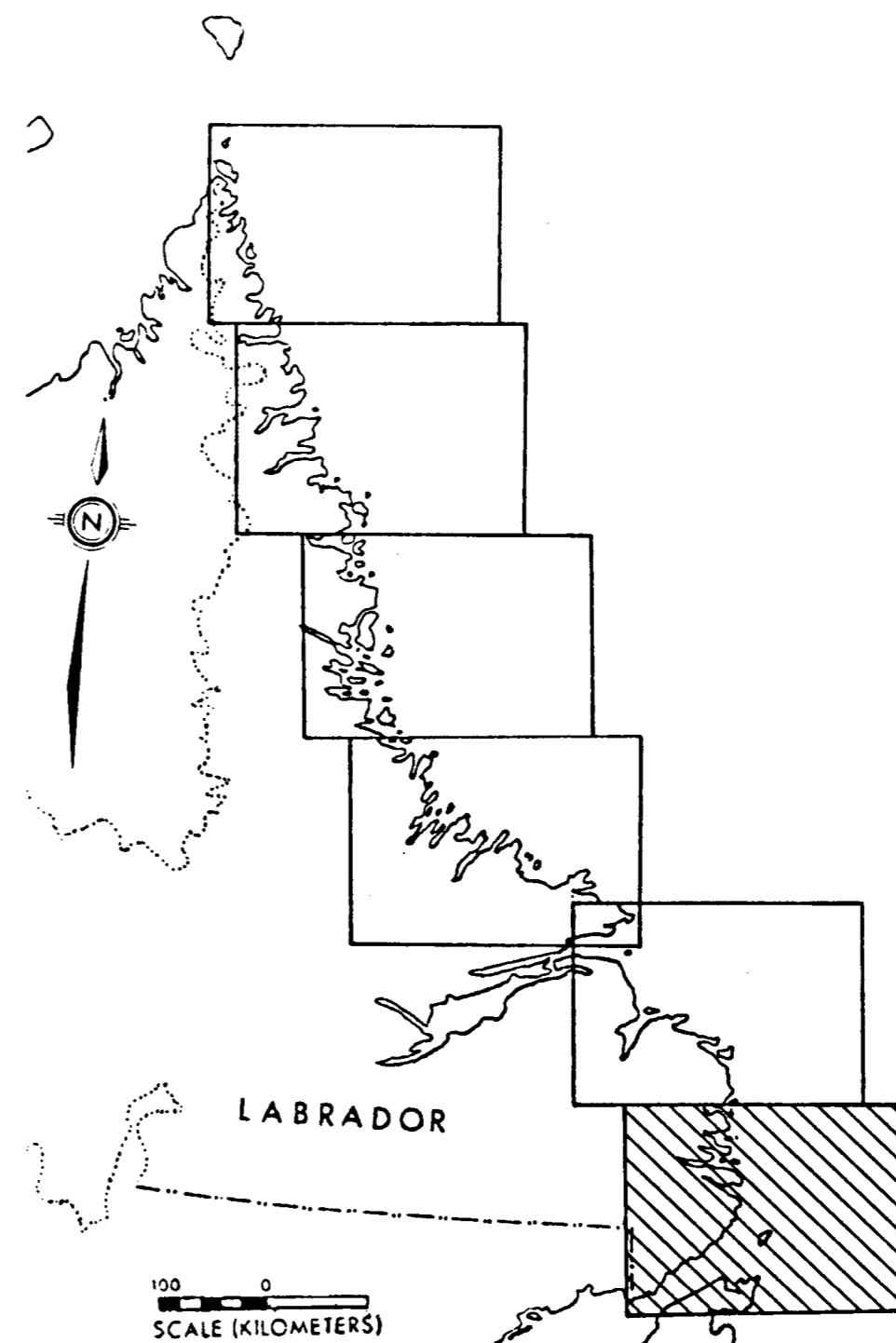
AN APPENDIX CONTAINS WIND AND VISIBILITY DATA, BY MONTH, PRESENTED IN A SERIES OF 12 TABLES. THE INFORMATION IS FOR ONE COASTAL COMMUNITY (HOPEDALE) AND AN OFFSHORE STATION (OSV BRAVO). IN ADDITION, TABLES GIVING TIDAL RANGES, DRAFTS OF MAJOR PORTS, AND FISH PROCESSING PLANTS ARE PROVIDED. A LIST OF REFERENCES UTILIZED HAS ALSO BEEN INCLUDED, HOWEVER, PERSONAL COMMUNICATIONS AND PERSONAL OBSERVATIONS COULD NOT BE CITED.

THE AUTHOR EXPRESSES HIS APPRECIATION FOR THE COOPERATION PROVIDED BY THE FOLLOWING GROUPS: ATLANTIC OCEANOGRAPHIC LABORATORY, CANADIAN WILDLIFE SERVICE, C-CORE, FISHERIES AND MARINE SERVICE AND THE LABRADOR RESOURCES ADVISORY COUNCIL WITHOUT WHOSE ASSISTANCE THIS REPORT COULD NOT HAVE BEEN PREPARED.

THE LABRADOR COAST HAS BEEN SUBDIVIDED INTO SIX SECTIONS:

- I BLANC-SABLON TO SQUARE ISLAND
- II GROSWATER BAY TO HAWKE HARBOUR
- III DAVIS INLET TO GROSWATER BAY
- IV OKAK ISLANDS TO DAVIS INLET
- V NACHVAK BAY TO OKAK ISLANDS
- VI CAPE CHIDLEY TO NACHVAK BAY

THESE ARE INDICATED BY THE SKETCH MAP BELOW (THE SHADED PORTION SHOWS THE AREA COVERED IN THIS SECTION).



IN RECENT YEARS THE COAST OF LABRADOR HAS BECOME AN IMPORTANT NEW FRONTIER FOR PETROLEUM EXPLORATION. AS A RESULT, THE POTENTIAL RISK OF OIL SPILLS HAS BECOME A MAJOR CONCERN. THIS ATLAS IS AN ATTEMPT TO COMPILE EXISTING BASELINE INFORMATION FOR THE LABRADOR REGION. A BRIEF DESCRIPTION OF THE MAIN PHYSICAL AND BIOLOGICAL PARAMETERS ARE GIVEN BELOW.

THE TOPOGRAPHY OF THE SOUTHERN LABRADOR COAST IS CHARACTERIZED BY A LOW LYING PLAIN CONTAINING MANY ROCKY ISLETS AND BARREN HEADLANDS. A MAJOR ESTUARY, THE HAMILTON INLET - LAKE MELVILLE SYSTEM, RECEIVES THE WATERS OF THE CHURCHILL RIVER.

THE NORTHERN COASTLINE IS DOMINATED BY SEVERAL MOUNTAIN RANGES, INCLUDING THE SPECTACULAR TORNGAT MOUNTAINS. A NUMBER OF DEEP FIORDS INDENT THE COAST; THE NAIN AND HEBRON FIORDS ARE THE MOST IMPORTANT OF THESE.

THE COASTAL BATHYMETRY IS CHARACTERIZED BY SEVEN OFFSHORE BANKS SEPARATED FROM THE COAST BY THE LABRADOR MARGINAL TROUGH. SEVERAL SADDLES OR DEPRESSIONS BETWEEN THE BANKS, CONNECT THE TROUGH WITH THE LABRADOR SEA.

THE CLIMATE IS INFLUENCED IN WINTER BY TWO MAIN STORM TRACKS ORIGINATING IN THE GREAT LAKES BASIN AND CAPE HATTERAS - CAPE COD AREAS. AN AVERAGE OF EIGHT LOWS PER MONTH AFFECT THE REGION AT THIS TIME OF YEAR. IN SUMMER THESE STORM TRACKS MOVE FURTHER NORTH AND, THEREFORE, HAVE LESS INFLUENCE ON LABRADOR.

THE CLIMATE IS ALSO STRONGLY INFLUENCED BY THE COLD LABRADOR CURRENT WHICH IS COMPRISED OF THREE DISTINCT SEGMENTS. TWO OF THESE RECEIVE INPUT FROM THE COLD POLAR CANADIAN AND HUDSON BAY WATERS ( $-1^{\circ}\text{C}$ ) WHILE THE THIRD BRANCH ORIGINATES NEAR WESTERN GREENLAND AND IS RELATIVELY WARM ( $+4^{\circ}\text{C}$ ). THERE IS VERY LITTLE MIXING BETWEEN THESE THREE WATER MASSES. VELOCITIES RANGE FROM 15 TO 40 CM. PER SECOND OFFSHORE; CURRENTS APPROACHING 3.5 M. PER SECOND FLOW INTO SOME FIORDS. SEA SURFACE TEMPERATURE CAN RANGE FROM  $-1^{\circ}\text{C}$  IN WINTER TO  $+7^{\circ}\text{C}$  IN SUMMER.

WAVE CONDITIONS OFF LABRADOR ARE SEVERE. YEARLY MAXIMUM WAVE HEIGHTS EXCEED 18 M. AND SIGNIFICANT WAVE HEIGHTS MAY RANGE FROM 6 TO 8 M.

SEA ICE, ALSO REFERRED TO AS PACK ICE, COVERS NEAR-SHORE WATERS BY EARLY DECEMBER. OVER THE WINTER MONTHS, THE ICE PACK GROWS IN EXTENT AND THICKNESS, OFTEN REACHING MORE THAN 300 KM FROM SHORE BY THE END OF APRIL. ICE IS NORMALLY 1 TO 2 M. THICK, HOWEVER, RAFTING CAN INCREASE THIS TO 5 M. THE LONG-TERM AVERAGE MOTION OF SEA ICE OFF LABRADOR HAS BEEN MEASURED; IT APPEARS TO MOVE 9 TO 11 KM. PER DAY SOUTHWARD IN A SPIRAL FASHION.

THE SEA ICE MELTS SLOWLY IN THE SPRING, COMMENCING IN THE SOUTH. THE BREAKUP PERIOD LASTS FROM MID-JUNE TO MID-JULY. THE ENTIRE COAST IS USUALLY ICE-FREE FROM LATE JULY TO EARLY DECEMBER.

ICEBERGS, CALVED FROM GLACIERS IN WESTERN GREENLAND, ARE MOST ABUNDANT OFF LABRADOR DURING THE SPRING AND WINTER MONTHS. ABOUT 2000 MOVE THROUGH THE REGION ANNUALLY. THE MAJORITY PASS OVER THE CONTINENTAL SHELF, ALTHOUGH A SMALL NUMBER OF ICEBERGS CAN BE FOUND UP TO 560 KM. FROM SHORE. AVERAGE DRIFT RATES RANGE FROM 18 TO 22 KM. PER DAY.

WATERFOWL - PRIMARILY EIDERS, BLACK DUCKS, AND CANADA GEESE - PASS THROUGH THE REGION ON SPRING (NORTHWARD) AND FALL (SOUTHWARD) MIGRATION. SEVERAL BREEDING SITES FOR EIDERS HAVE BEEN LOCATED ON COASTAL ISLETS. IN SPRING, LARGE NUMBERS OF DUCKS AND GEESE FREQUENT THE BAYS NEAR NAIN FOR MOULTING.

THICK-BILLED AND COMMON MURRES ALSO MIGRATE ALONG THE COAST DURING SPRING AND FALL. COMMON MURRES GATHER OFF SOUTHERN LABRADOR FROM SEPTEMBER TO NOVEMBER BEFORE MOVING TO WINTERING AREAS FURTHER SOUTH.

A NUMBER OF SEABIRD BREEDING COLONIES ARE FOUND ON THE NEAR SHORE ISLANDS. SPECIES PRESENT DURING THE BREEDING SEASON MAY INCLUDE ATLANTIC PUFFINS, BLACK-LEGGED KITTIWAKES, COMMON AND THICK-BILLED MURRES, NORTHERN FULMARS, RAZORBILLS, AS WELL AS GLAUCOUS, RINGED-BILLED, GREAT BLACK-BACKED, AND HERRING GULLS.

ATLANTIC SALMON SPAWN IN NUMEROUS RIVERS OF SOUTHERN LABRADOR. THEY MIGRATE TO WATERS OFF WESTERN GREENLAND AND UNGAVA BAY TO FEED. IN SUMMER, SALMON ARE CAUGHT COMMERCIALY IN COASTAL WATERS, PRIMARILY SOUTH OF HAMILTON INLET. THE SANDWICH BAY AREA IS THE CENTER OF THE GILLNET SALMON FISHERY. THERE IS ALSO A LARGE SPORT FISHERY FOR SALMON IN MANY OF THE RIVERS SOUTH OF DAVIS INLET DURING JULY AND AUGUST.

ARCTIC CHAR INHABIT MOST RIVERS NORTH OF DAVIS INLET. CHAR MOVE DOWNSTREAM TO COASTAL BAYS NEAR THEIR PARENT RIVERS IN JUNE AND REMAIN THERE UNTIL RETURNING UPRIVER DURING AUGUST AND SEPTEMBER. SPAWNING OCCURS IN SEPTEMBER AND OCTOBER. CHAR, HARVESTED BY LOCAL RESIDENTS DURING JULY AND AUGUST, ARE EXTREMELY IMPORTANT AS A DOMESTIC RESOURCE. SOME BAYS IN THE VICINITY OF NAIN APPEAR TO HAVE BEEN OVERFISHED IN RECENT YEARS.

POTENTIAL COMMERCIAL FISHERIES FOR ICELANDIC SCALLOPS EXIST NEAR NAIN AND IN THE PORCUPINE STRAND REGION.

OFFSHORE FISHING TAKES PLACE PRIMARILY ON HAMILTON AND BELLE ISLE BANKS. THE MAIN SPECIES HARVESTED ARE ATLANTIC COD, REDFISH, AMERICAN PLAICE, AND GREENLAND HALIBUT. COD MIGRATE TO INSHORE FEEDING AREAS DURING JUNE AND JULY AND SUPPORT A SMALL COD TRAP FISHERY DURING THE SUMMER.

MAJOR COD AND REDFISH SPAWNING GROUNDS ARE LOCATED ON HAMILTON AND BELLE ISLE BANKS DURING APRIL AND MAY. COD ALSO SPAWN ON SAGLEK BANK. IN JULY, CAPELIN MOVE TO INSHORE SPAWNING AREAS IN SOUTHERN LABRADOR AS FAR NORTH AS CAPE HARRISON.

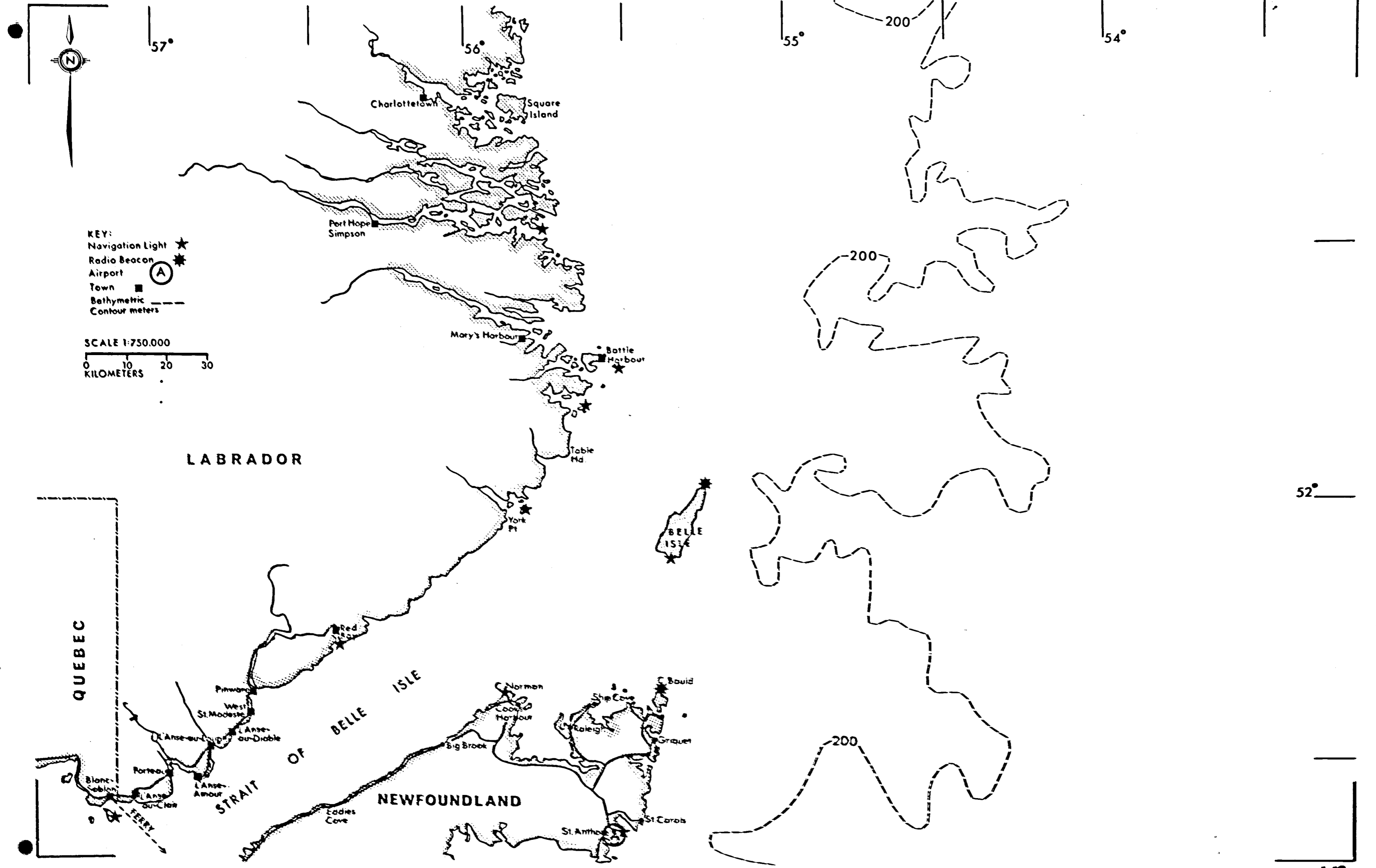
POTENTIAL FISHING AREAS FOR TURBOT AND SHRIMP HAVE RECENTLY BEEN LOCATED IN THE VICINITY OF HAWKE CHANNEL. SHRIMP ARE CAUGHT COMMERCIALY IN WATERS NEAR NAIN. MINOR FISHERIES FOR HERRING AND SQUID ALSO EXIST IN SOUTHERN LABRADOR WATERS.

HARP SEALS AND TO A LESSER DEGREE, HOODED SEALS MIGRATE ALONG THE COAST DURING WINTER (SOUTHWARD) AND SPRING (NORTHWARD) TO AND FROM WATERS OFF SOUTHERN LABRADOR FOR WHELPING AND BREEDING. WHELPING TAKES PLACE IN MID-MARCH AND BREEDING FOLLOWS IN APRIL-MAY. NORTHWARD MIGRATION OCCURS IN LATE MAY-EARLY JUNE. IN RECENT YEARS THE HARP SEAL HERD HAS MIGRATED FURTHER FROM SHORE AND IS, THEREFORE, LESS ACCESSIBLE TO LOCAL RESIDENTS.

RINGED SEALS ARE FOUND FROM NOVEMBER TO JUNE IN COASTAL WATERS OF NORTHERN LABRADOR AS FAR SOUTH AS CAPE HARRISON. NORTHWARD MIGRATION OCCURS AFTER WHELPING IN APRIL. LARGE NUMBERS ARE ALSO FOUND IN LAKE MELVILLE ALL YEAR ROUND.

HARBOUR SEALS GENERALLY OCCUR IN SCATTERED POPULATIONS ALONG THE COAST; LARGE NUMBERS HAVE BEEN REPORTED IN SOME ESTUARIES NORTH OF NAIN.

DURING SUMMER WHALES ARE FREQUENT VISITORS TO LABRADOR COASTAL WATERS. THE MOST COMMON CETACEAN SPECIES INCLUDE SEI, PILOT, HUMPBACK, MINKE AND FIN.



KEY:  
 Navigation Light ★  
 Radio Beacon ★  
 Airport (A)  
 Town ■  
 Bathymetric ---  
 Contour meters ---

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

LABRADOR

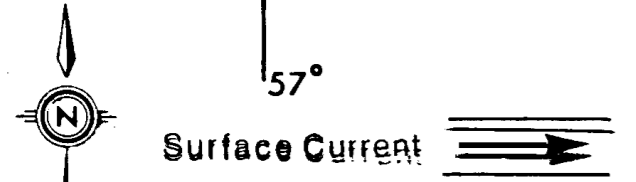
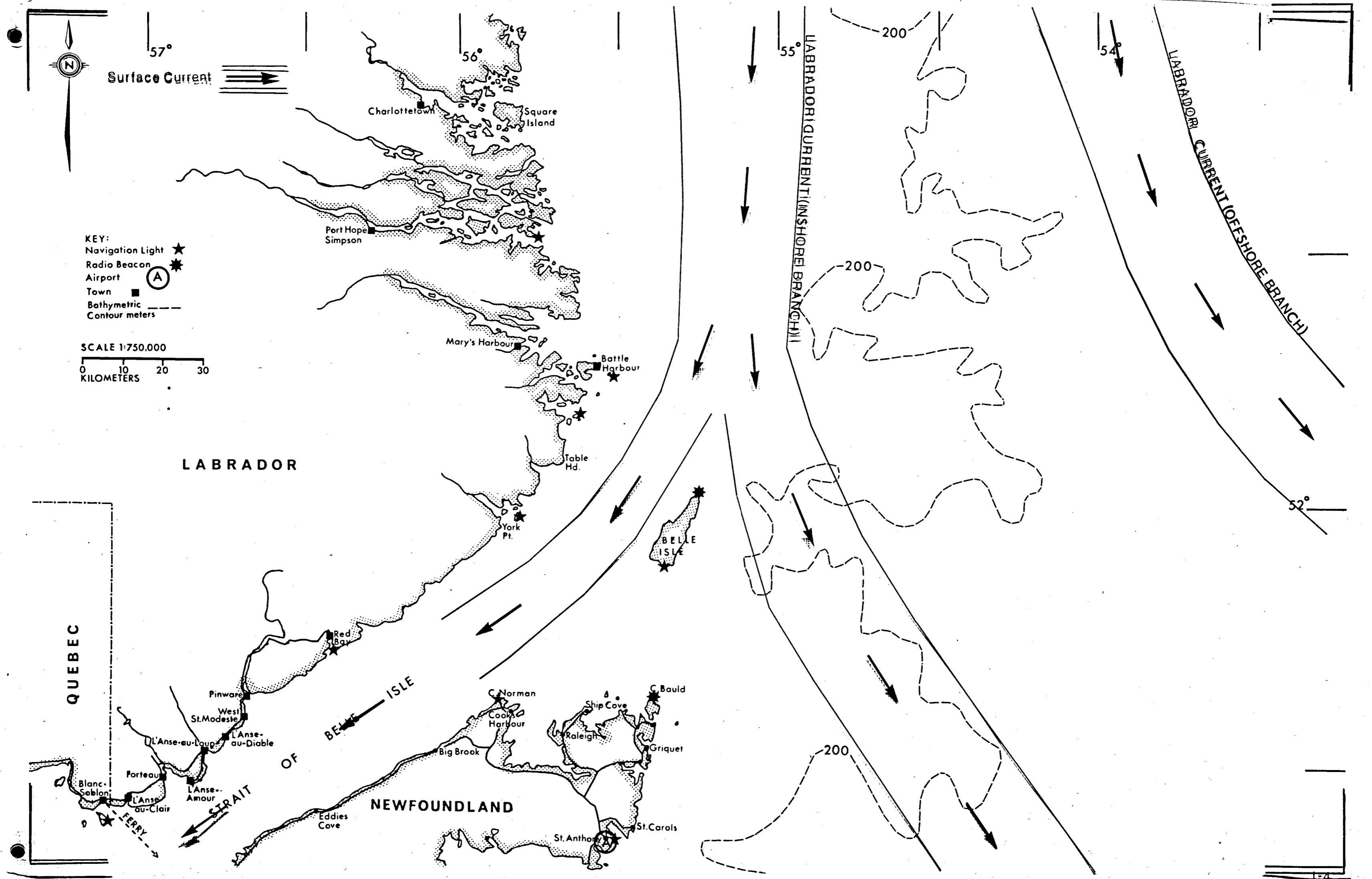
QUEBEC

STRAIT OF BELLE ISLE

NEWFOUNDLAND

BELLE ISLE

52°



- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airport (A)
  - Town ■
  - Bathymetric Contour meters - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

LABRADOR

QUEBEC

BELLE ISLE

STRAIT OF BELLE ISLE

NEWFOUNDLAND

LABRADOR CURRENT (INSHORE BRANCH)

LABRADOR CURRENT (OFFSHORE BRANCH)

56°

55°

54°

52°

Charlottetown

Square Island

Port Hope Simpson

Mary's Harbour

Battle Harbour

Table Hd.

York Pt.

BELLE ISLE

Red Bay

Pinware

West St. Modeste

L'Anse-au-Loup

L'Anse-au-Diable

L'Anse-Amour

L'Anse-au-Clair

Blanc-Sablon

Porteau

Eddies Cove

Big Brook

C. Norman

Cook's Harbour

Raleigh

Ship Cove

Griquet

C. Bauld

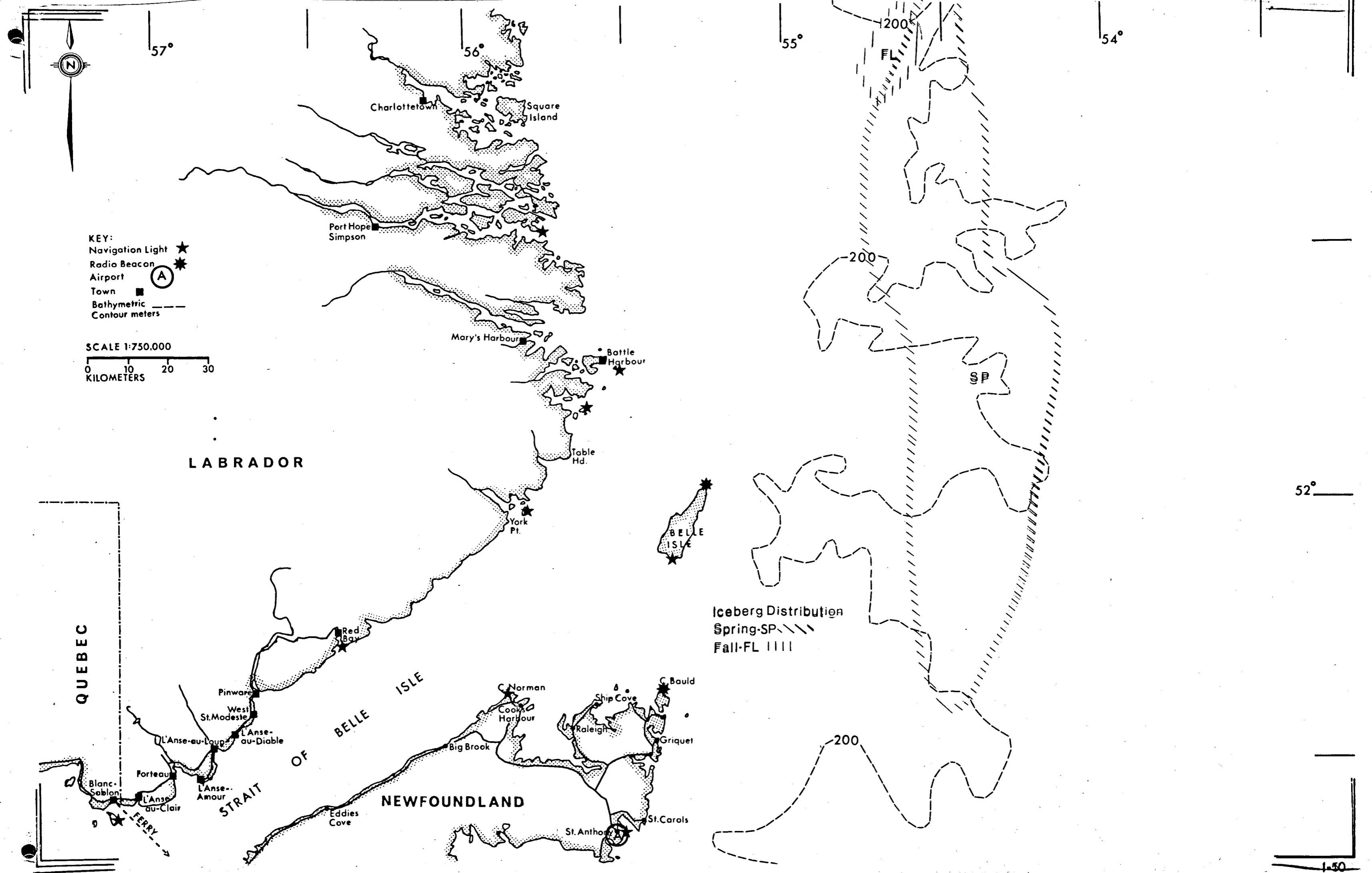
St. Carols

St. Anthony

200

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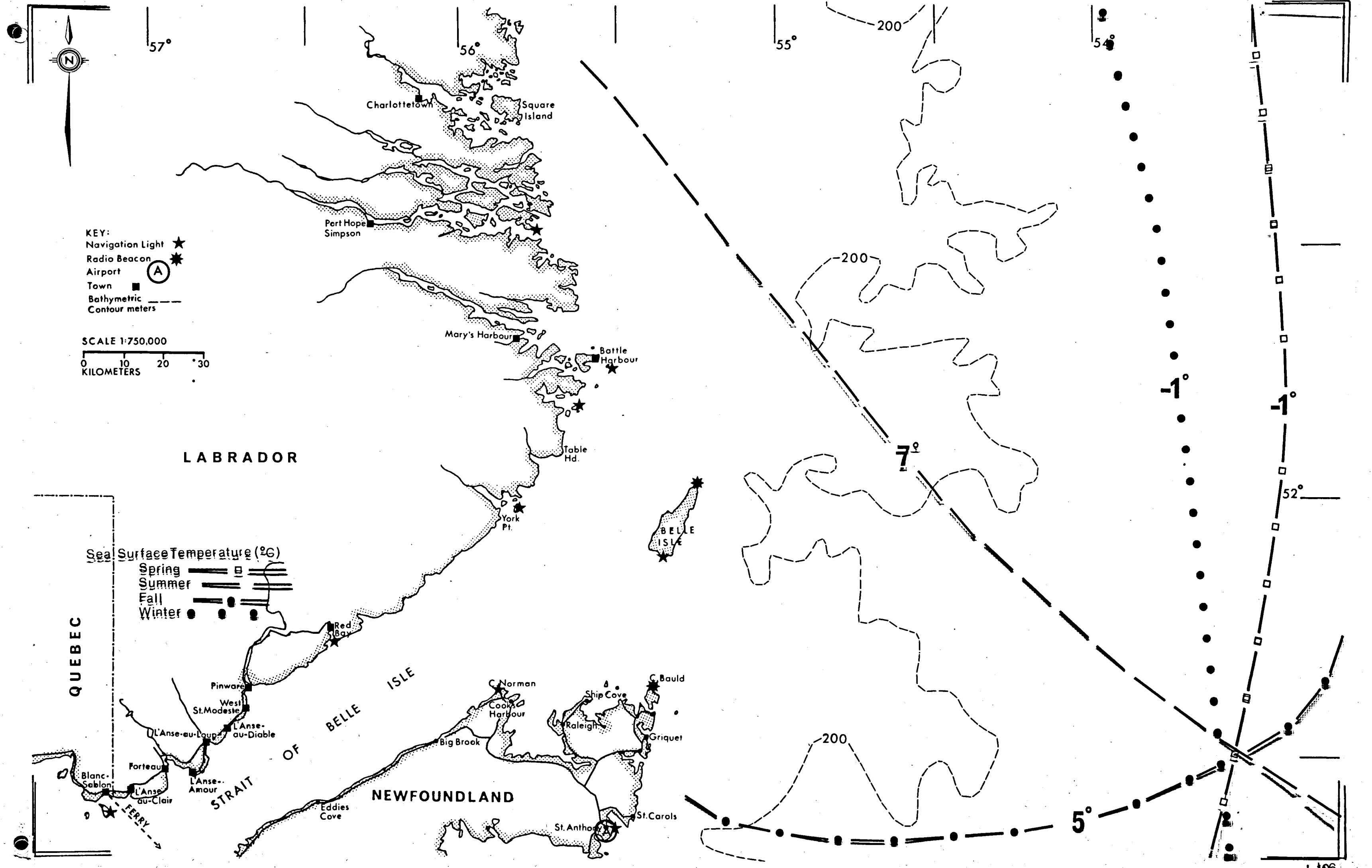
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KEY:  
 Navigation Light ★  
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 Airport (A)  
 Town ■  
 Bathymetric Contour meters

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

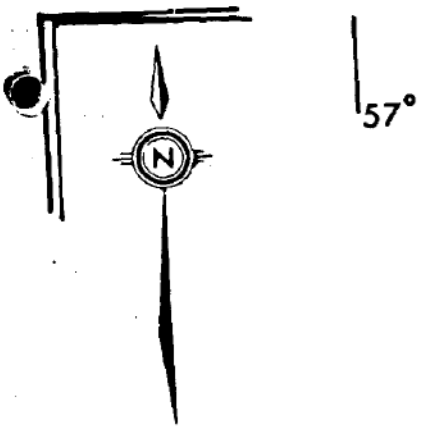
Iceberg Distribution  
 Spring-SP - - -  
 Fall-FL |||



**KEY:**  
 Navigation Light ★  
 Radio Beacon ★  
 Airport (A)  
 Town ■  
 Bathymetric Contour meters - - -

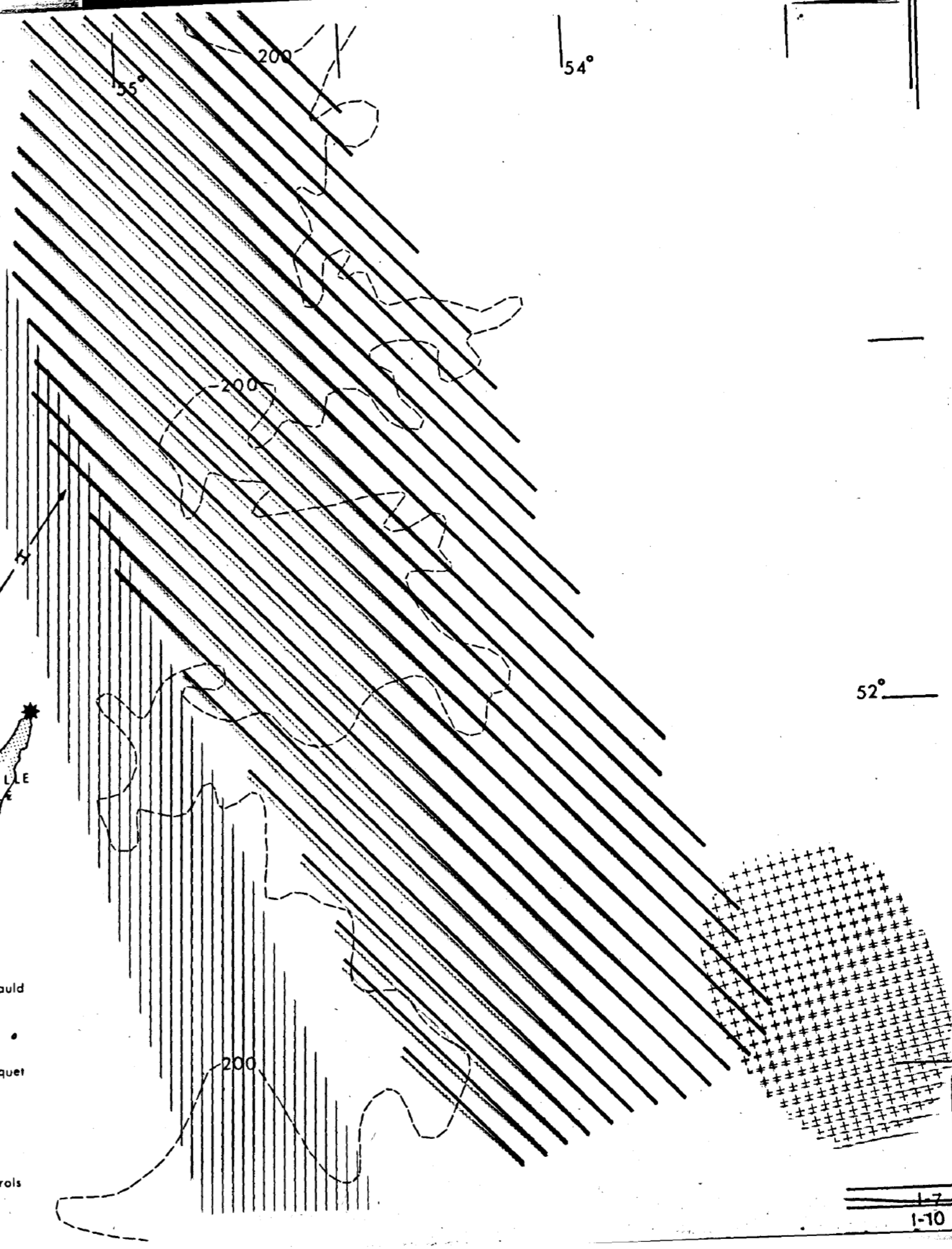
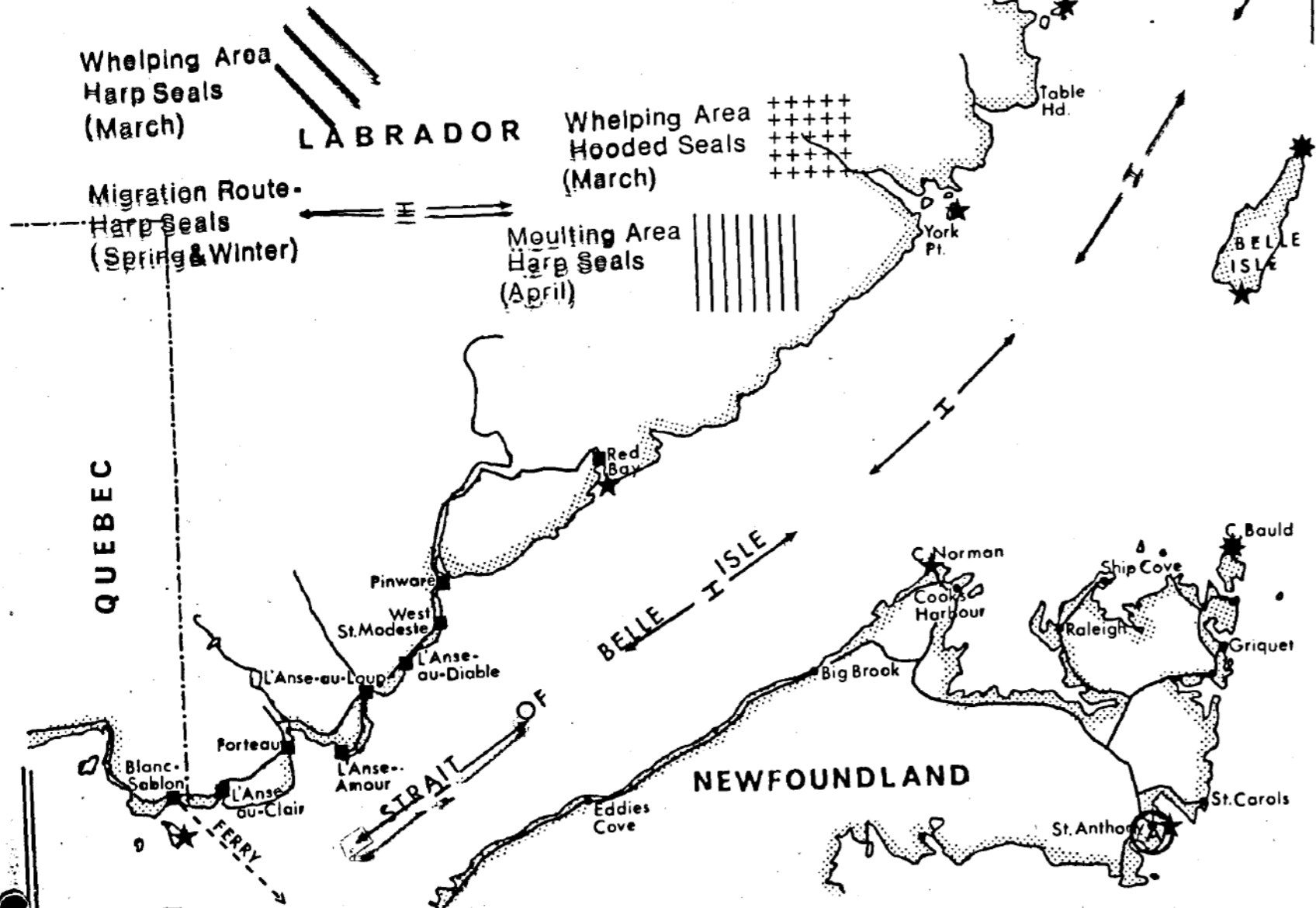
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 0 10 20 30  
 KILOMETERS

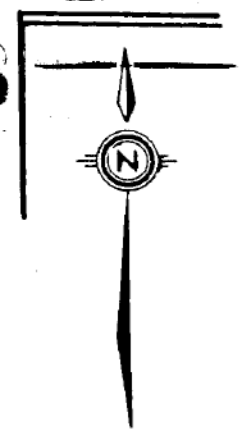
**Sea Surface Temperature (°C)**  
 Spring ————  
 Summer ————  
 Fall ————  
 Winter ●●●●



- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airport (A)
  - Town ■
  - Bathymetric Contour meters - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS





57°

56°

54°

- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airport (A)
  - Town (■)

Capeworth Inshore Migration to Spawning Area (July)

SCALE 1:750,000

0 10 20 30  
KILOMETERS

Major Salmon Spawning River (S)

Migration Route - Salmon (Spring & Fall)

Offshore Bank - (Fishing & Spawning Area)

LABRADOR

Quebec Cod - Inshore Migration

QUEBEC

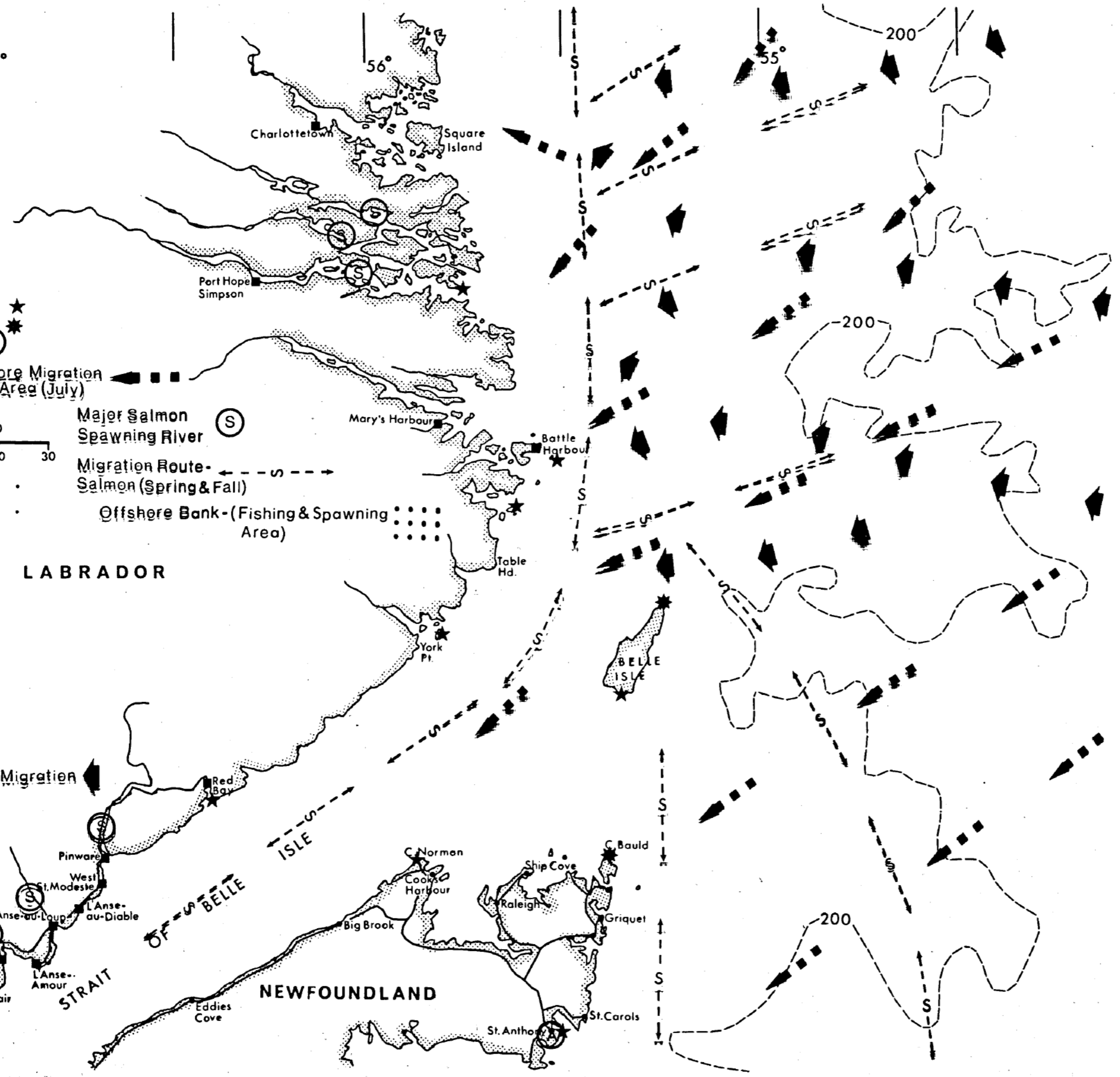
STRAIT OF BELLE ISLE

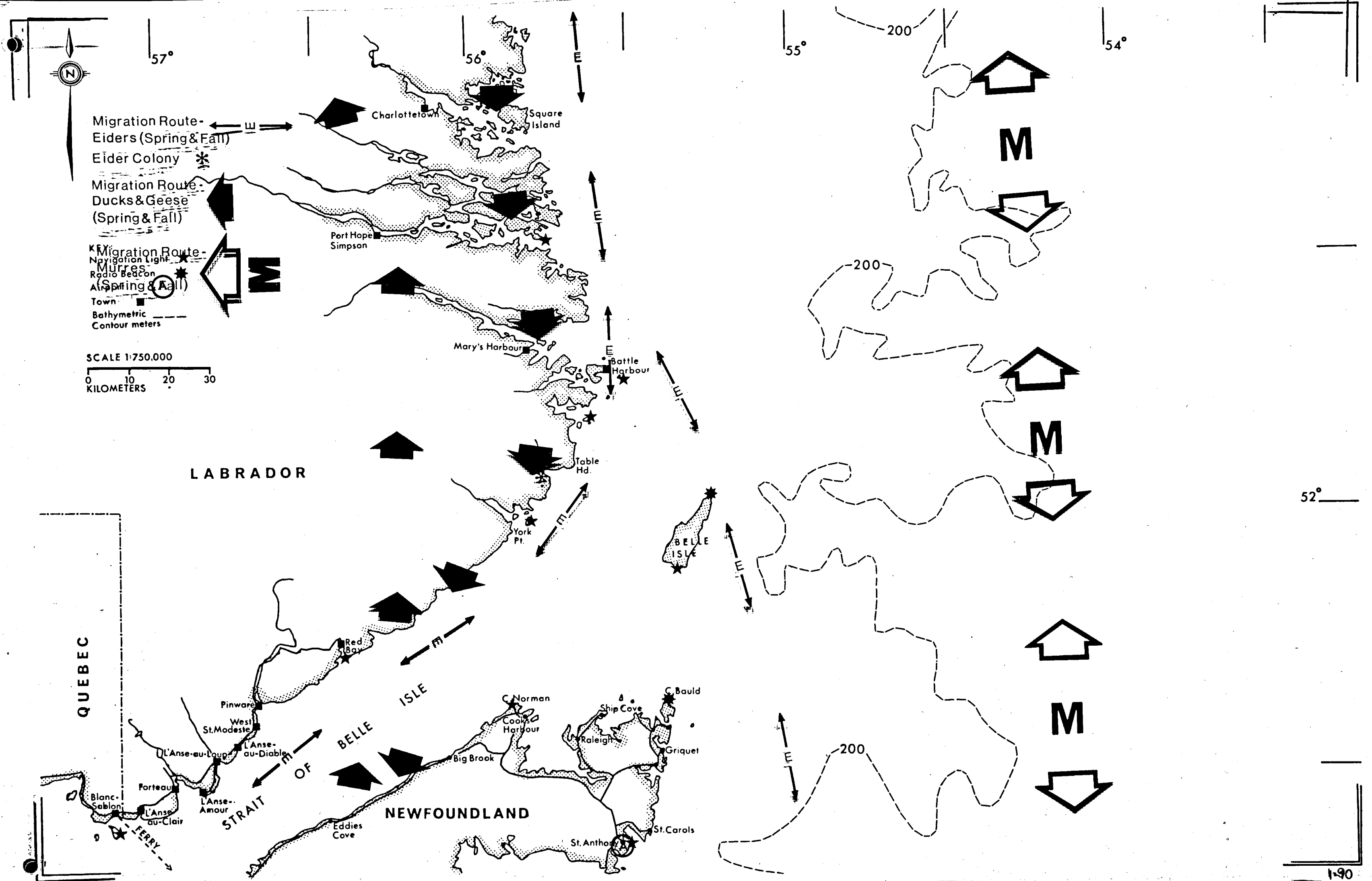
NEWFOUNDLAND

BELLE ISLE

BELLE ISLE BANK

52°





Migration Route-  
Eiders (Spring & Fall)

Migration Route-  
Ducks & Geese  
(Spring & Fall)

Migration Route-  
Murres  
(Spring & Fall)

Navigation Light

Radio Beacon

Town

Bathymetric  
Contour meters

SCALE 1:750,000

0 10 20 30  
KILOMETERS

LABRADOR

BELLE ISLE

NEWFOUNDLAND

QUEBEC

FERRY

52°



57°

56°

55°

54°

Charlottetown Square Island

Port Hope Simpson

Mary's Harbour

Battle Harbour

Table Hd.

York Pt.

BELLE ISLE

OF BELLE ISLE

NEWFOUNDLAND

St. Anthony

St. Carols

LABRADOR

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

Bathymetric Contour meters  
 KEY (Shoreline Types):  
 Steep Slope [diagonal lines]  
 Intermediate Slope [vertical lines]  
 Gentle Slope [horizontal lines]  
 Offshore Barrier or Reef [+]  
 Extensive Beach [dotted line]

QUEBEC

STRAIT OF

C. Norman

Cook Harbour

Big Brook

Ship Cove

Raleigh

Griquet

Pinware

West St. Modeste

L'Anse-au-Loup

L'Anse-au-Diable

Forteau

L'Anse-au-Clair

L'Anse-Amour

Blanc-Sablon

FERRY

200

200

200

52°

**ENVIRONMENTAL ATLAS**  
**OF**  
**COASTAL LABRADOR**

**SECTION II**

**Groswater Bay to  
Hawke Harbour**

ENVIRONMENTAL EMERGENCY DIVISION  
ENVIRONMENTAL PROTECTION SERVICE  
ATLANTIC REGION  
MARCH 1978

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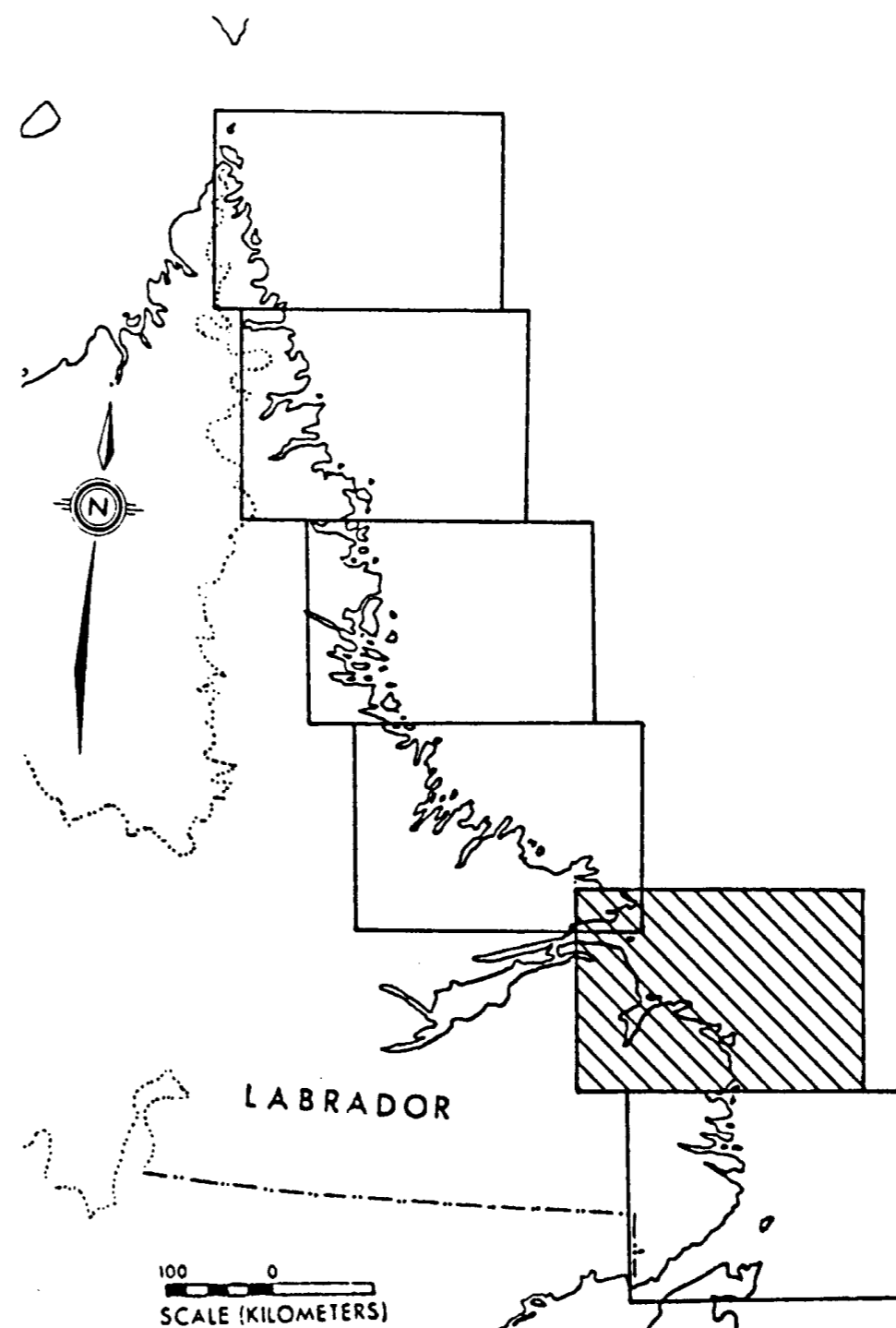
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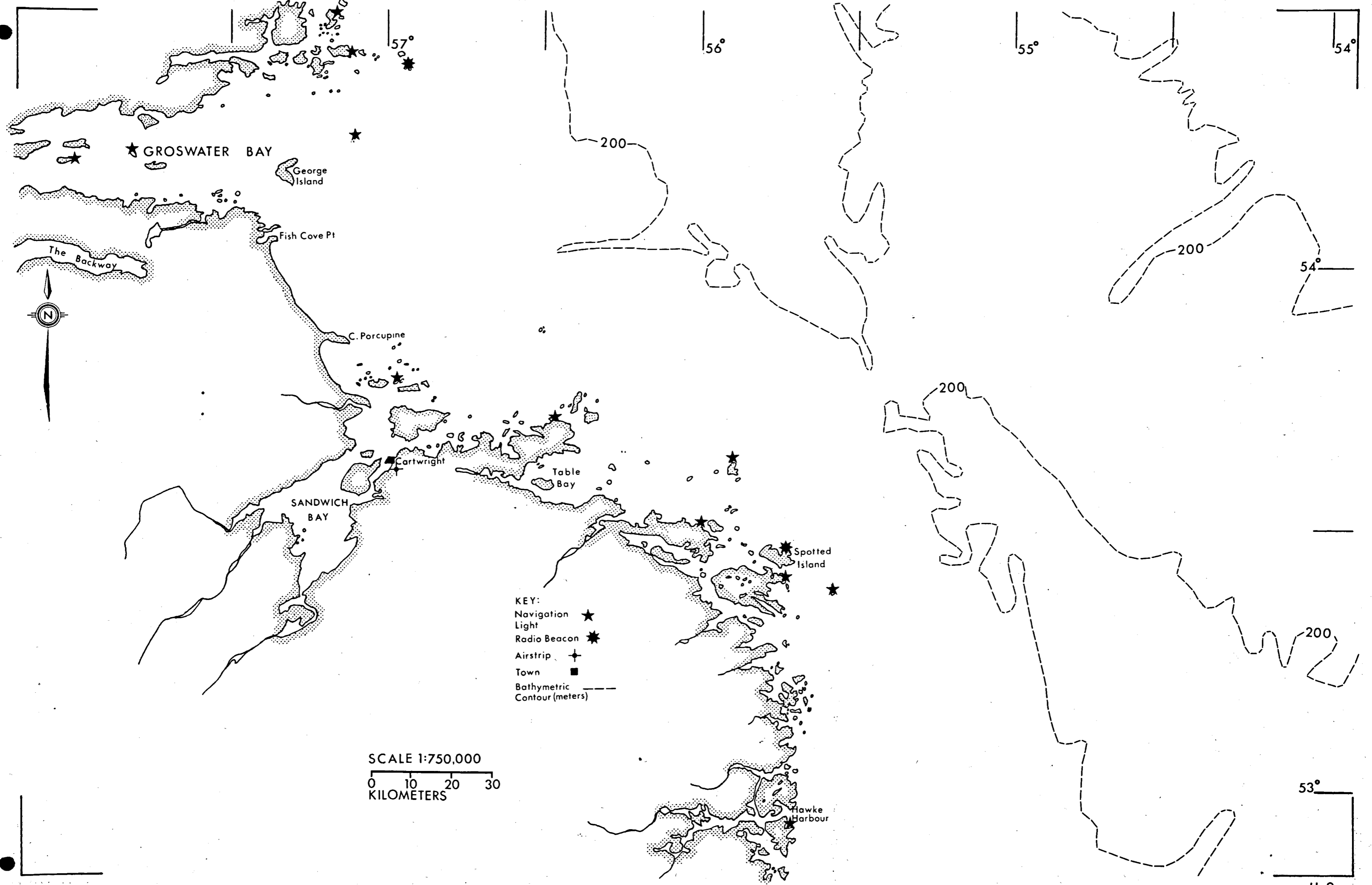
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THESE ARE INDICATED BY THE SKETCH MAP BELOW (THE SHADED PORTION SHOWS THE AREA COVERED IN THIS SECTION).

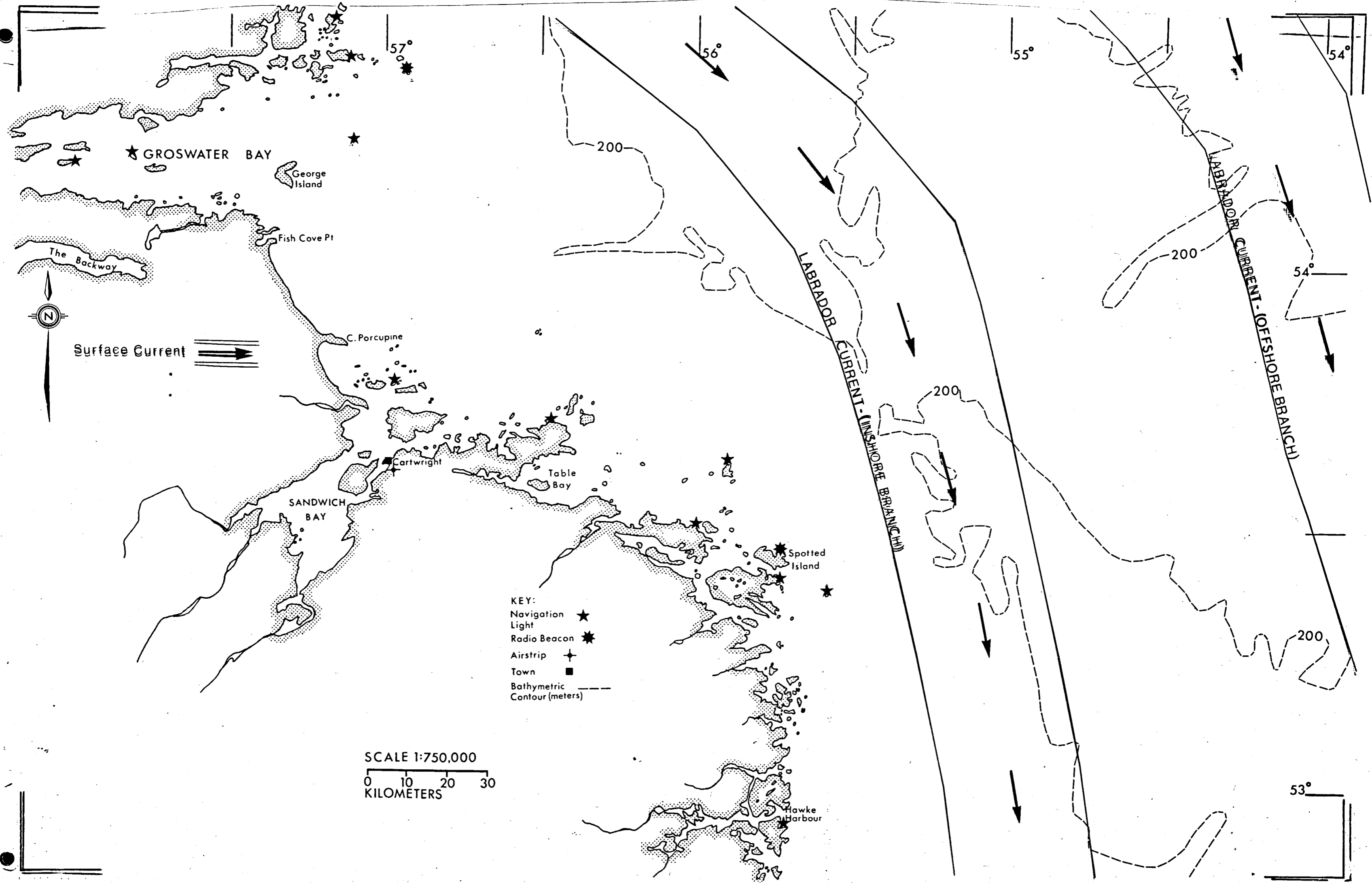




KEY:  
Navigation Light ★  
Radio Beacon ★  
Airstrip ✚  
Town ■  
Bathymetric Contour (meters) - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

53°



GROSWATER BAY

George Island

Fish Cove Pt

The Backway

C. Porcupine

Cartwright

SANDWICH BAY

Table Bay

Spotted Island

Hawke Harbour

- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

Surface Current

LABRADOR CURRENT - INSHORE BRANCH (H)

LABRADOR CURRENT - OFFSHORE BRANCH (H)

57°

56°

55°

54°

54°

53°

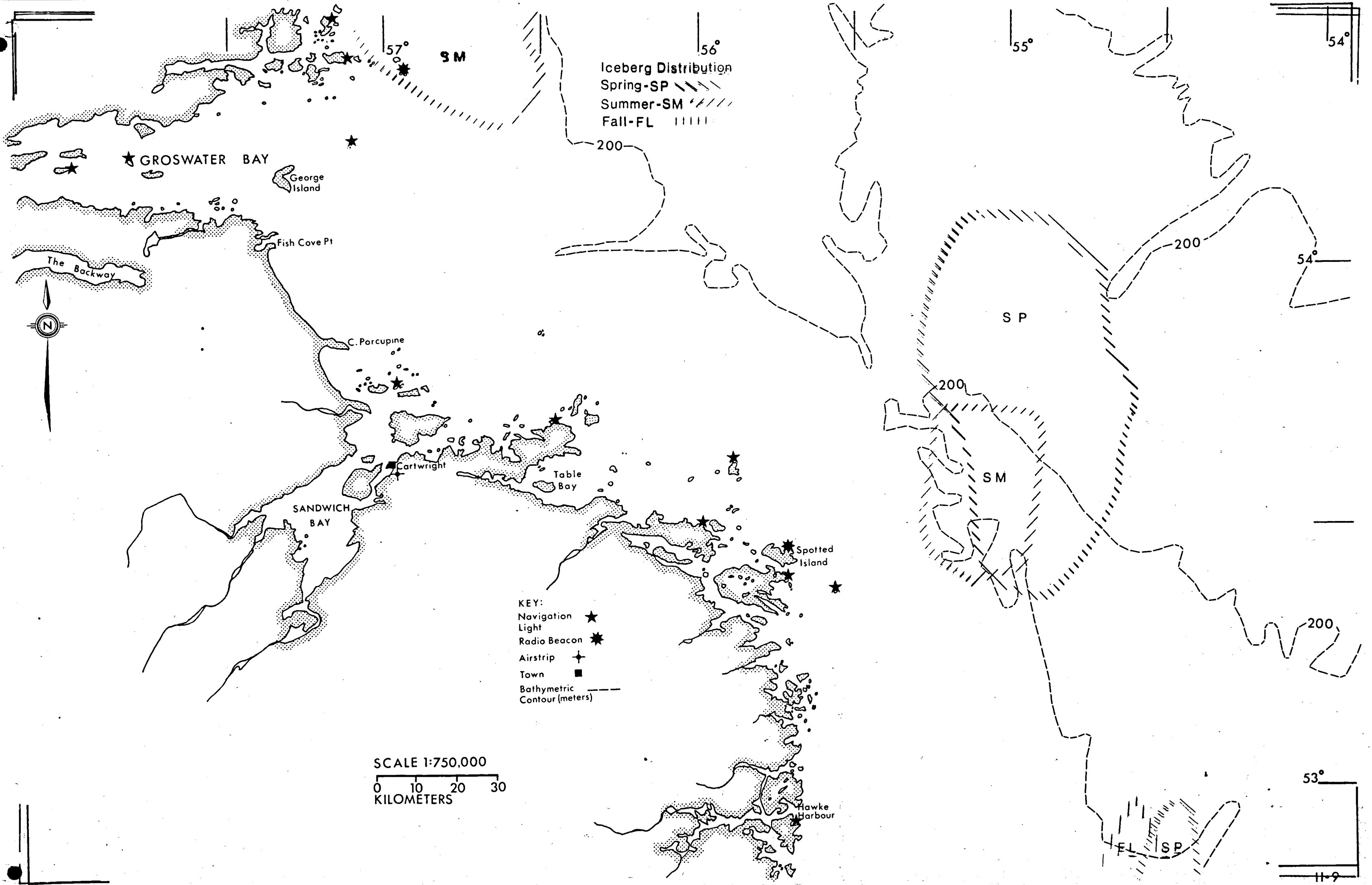
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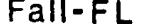
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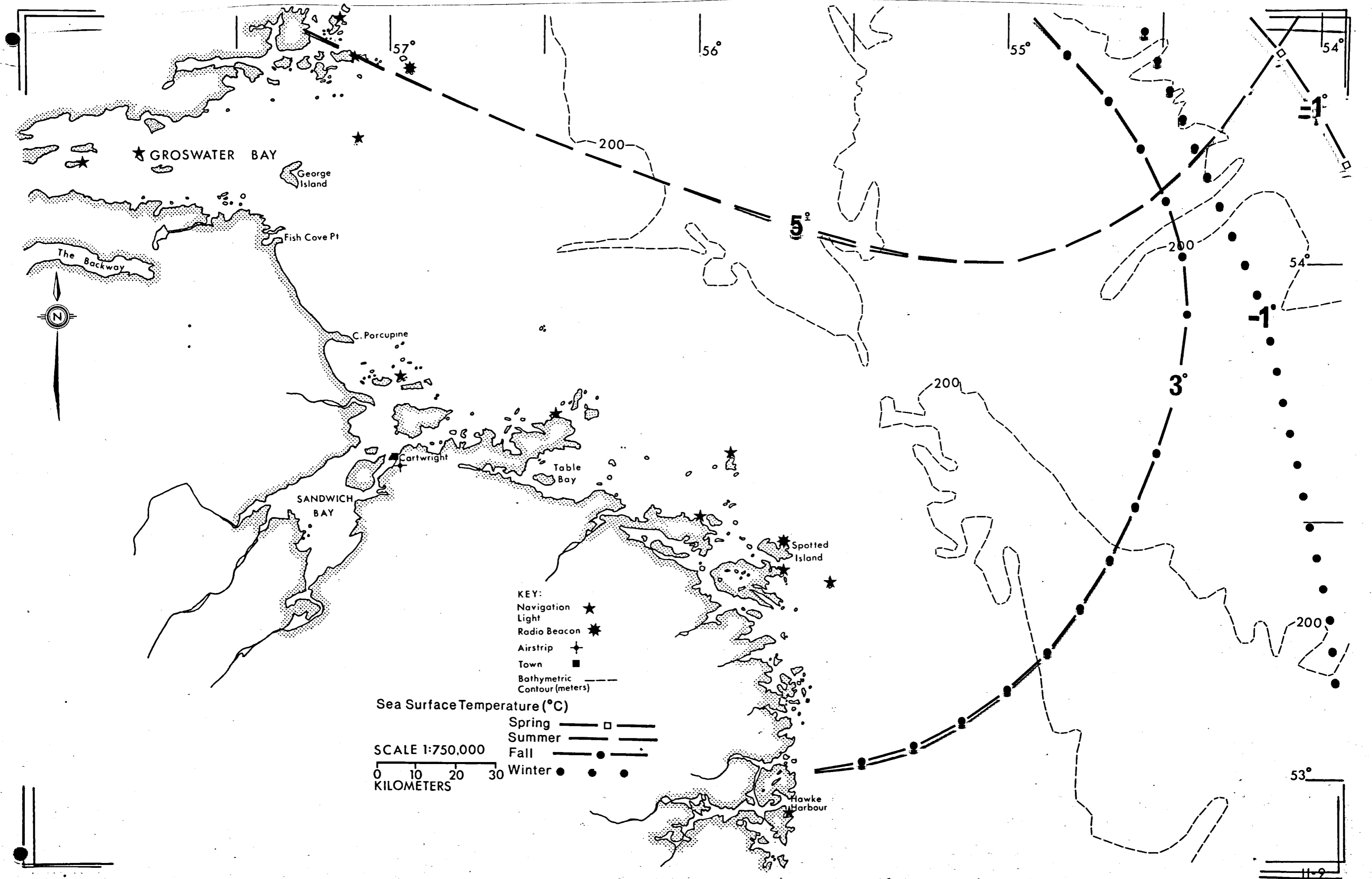


Iceberg Distribution  
 Spring-SP   
 Summer-SM   
 Fall-FL 

KEY:  
 Navigation Light ★  
 Radio Beacon ★  
 Airstrip +  
 Town ■  
 Bathymetric Contour (meters) —

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

53°  
 11-9



GROSWATER BAY

George Island

Fish Cove Pt

The Backway

C. Porcupine

Cartwright

SANDWICH BAY

Table Bay

Spotted Island

Hawke Harbour

- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

Sea Surface Temperature (°C)

- Spring — □ —
- Summer — — —
- Fall — ● —
- Winter ● ● ●

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

200

50

200

200

200

57°

56°

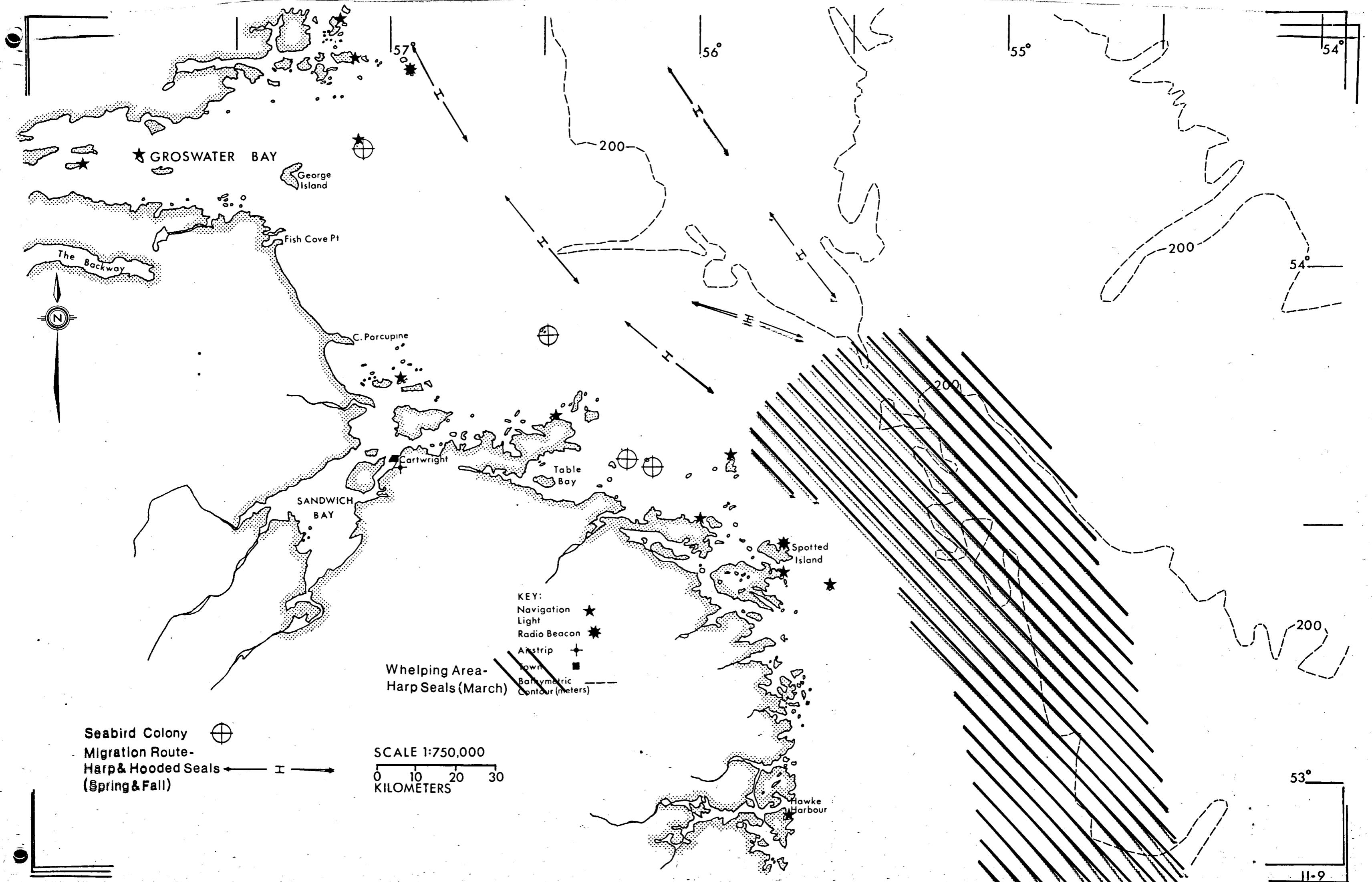
55°

54°

54°

53°

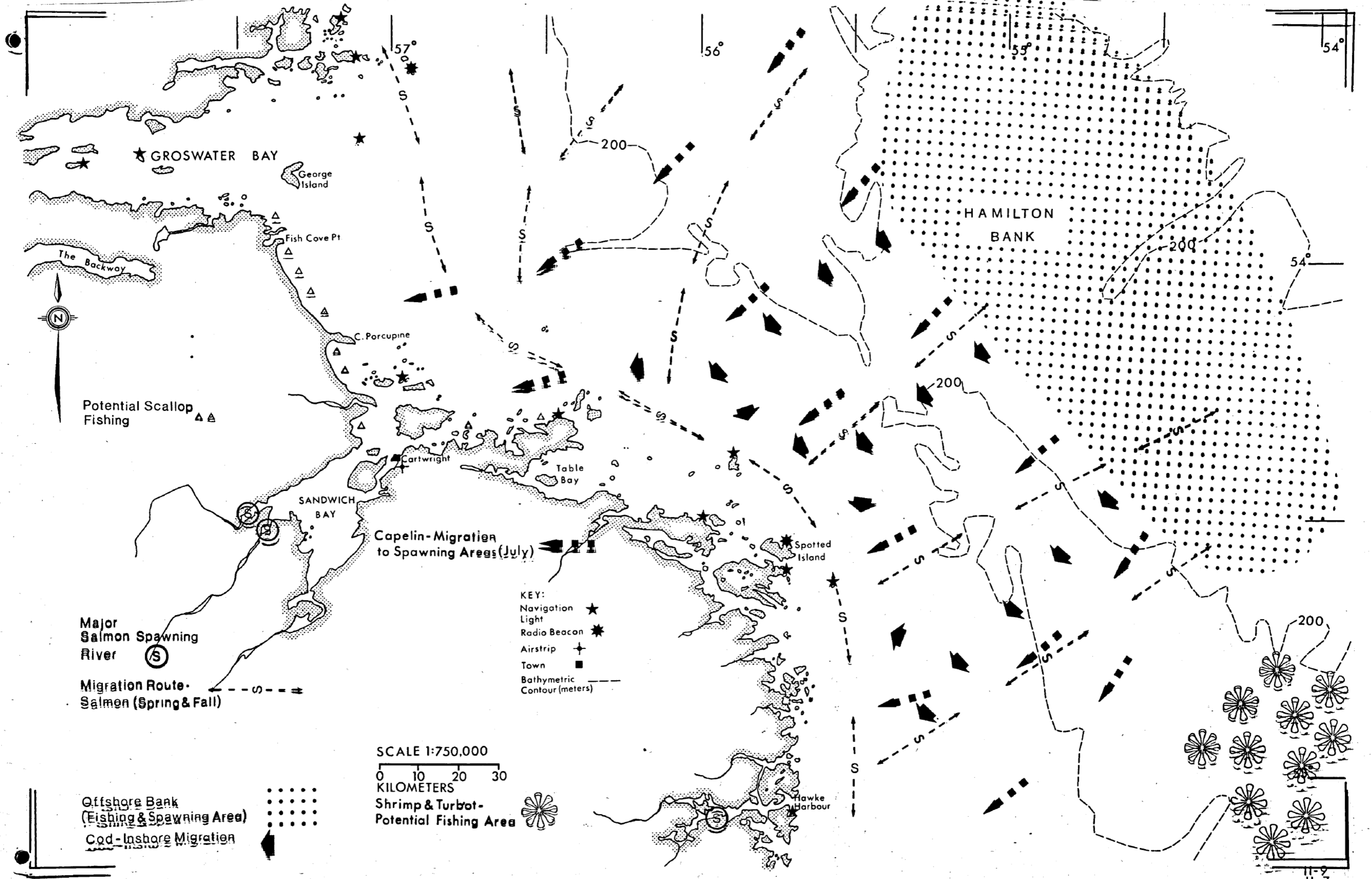
N



KEY:  
 Navigation Light ★  
 Radio Beacon ★  
 Anstrip +  
 Town ■  
 Whelping Area - Harp Seals (March) [Hatched Area]  
 Bathymetric Contour (meters) - - -

Seabird Colony ⊕  
 Migration Route - Harp & Hooded Seals (Spring & Fall) ⇄

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

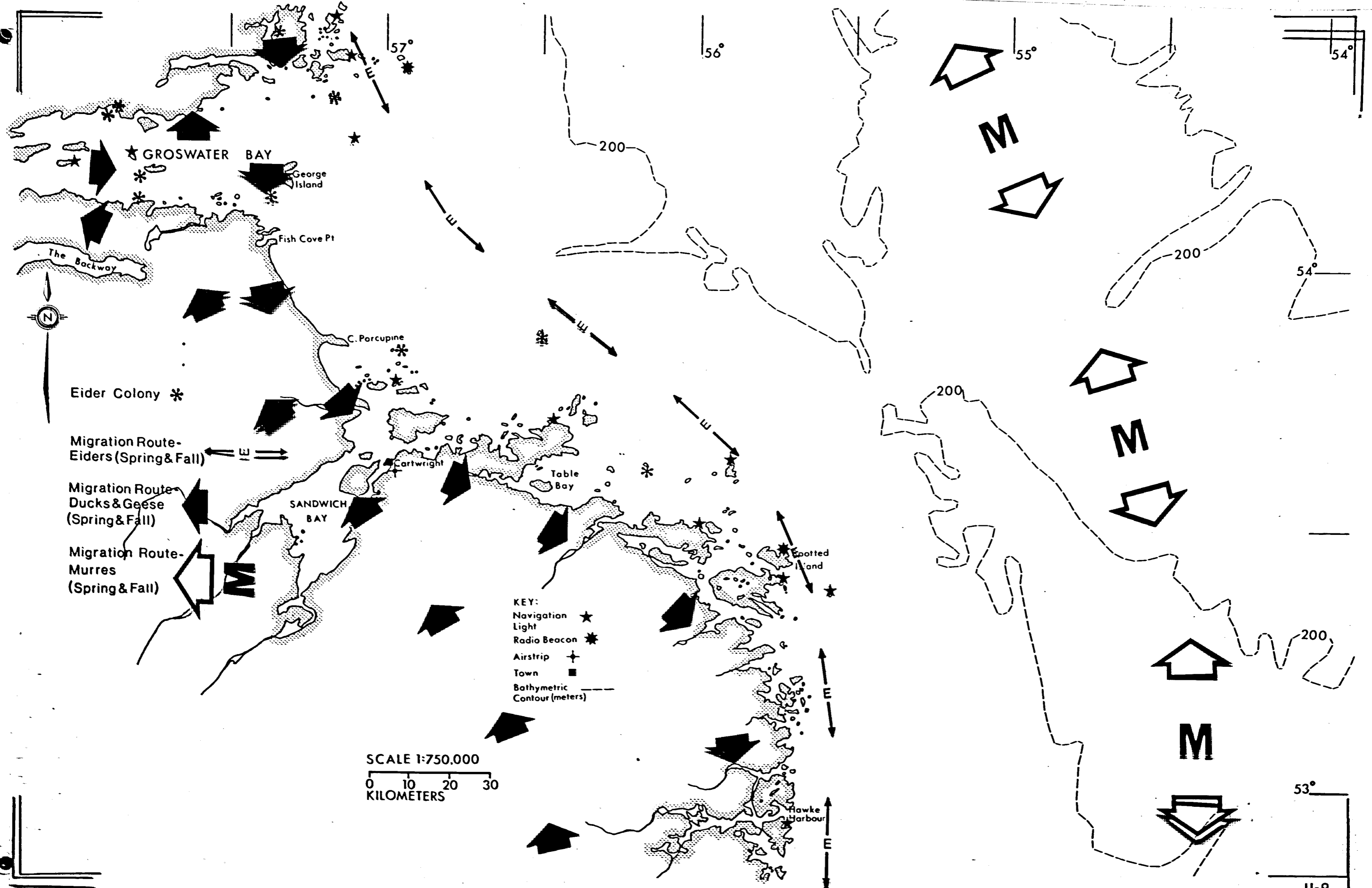


KEY:  
 Navigation Light ★  
 Radio Beacon ★  
 Airstrip +  
 Town ■  
 Bathymetric Contour (meters) - - -

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS  
 Shrimp & Turbot - Potential Fishing Area

Offshore Bank (Fishing & Spawning Area) [Dotted Pattern]  
 Cod - Inshore Migration [Arrow]

Major Salmon Spawning River (S)  
 Migration Route - Salmon (Spring & Fall) [Dashed Arrow]



GROSWATER BAY

George Island

Fish Cove Pt

The Backway

C. Porcupine

Cartwright

Table Bay

SANDWICH BAY

Spotted Island

Hawke Harbour

Eider Colony \*

Migration Route-  
Eiders (Spring & Fall)

Migration Route-  
Ducks & Geese  
(Spring & Fall)

Migration Route-  
Murres  
(Spring & Fall)

KEY:  
Navigation Light ★  
Radio Beacon ★  
Airstrip +  
Town ■  
Bathymetric Contour (meters) - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS

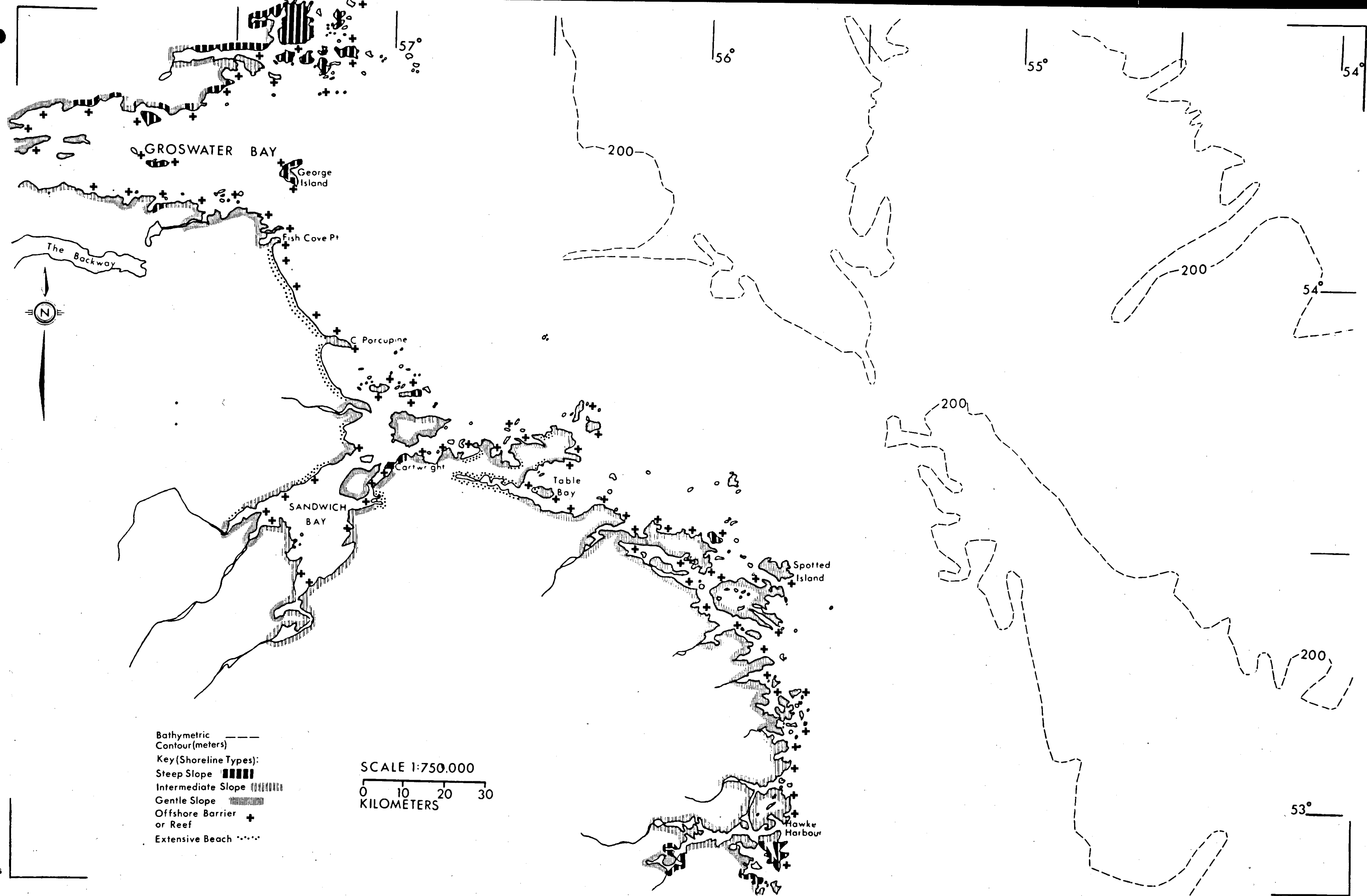
53°

54°

55°

56°

57°



Bathymetric Contour (meters) - - - - -  
 Key (Shoreline Types):  
 Steep Slope [diagonal hatching]  
 Intermediate Slope [vertical hatching]  
 Gentle Slope [horizontal hatching]  
 Offshore Barrier or Reef +  
 Extensive Beach [dotted line]

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS



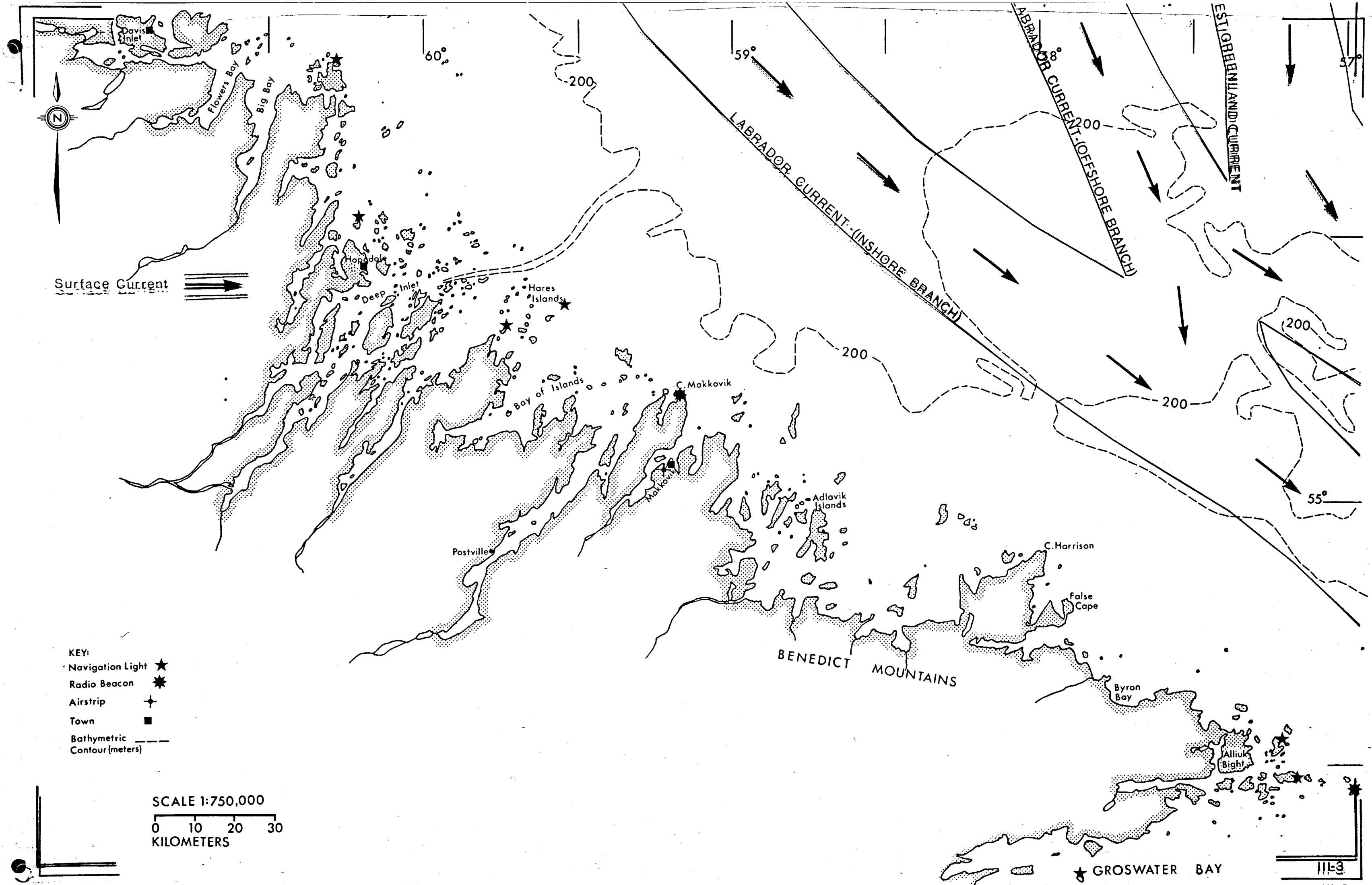
- KEY:
- Navigation Light ★
  - Radio Beacon ✱
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

SCALE 1:750,000

0 10 20 30  
KILOMETERS

BENEDICT MOUNTAINS

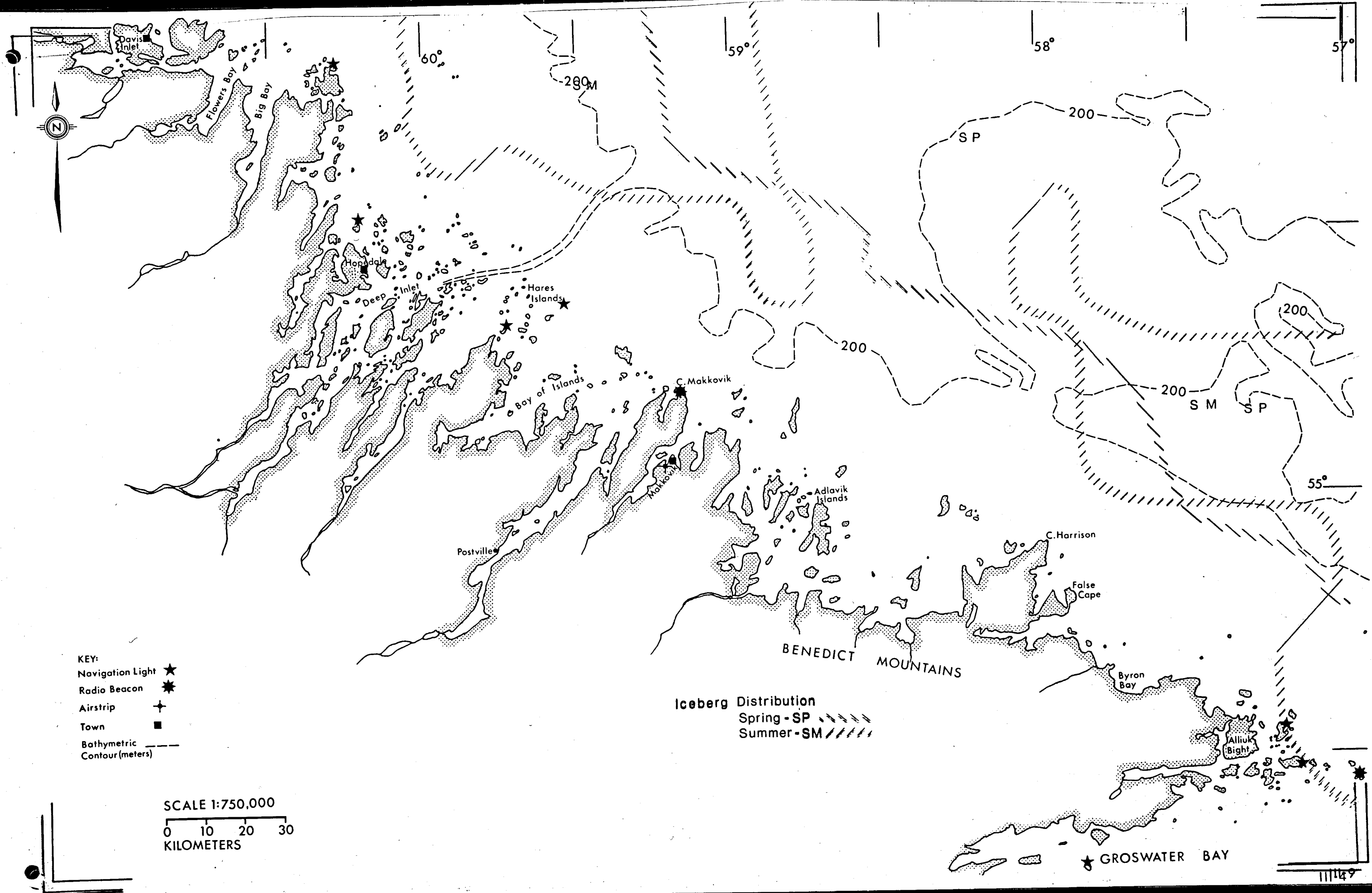
★ GROS WATER BAY



- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

★ GROSWATER BAY



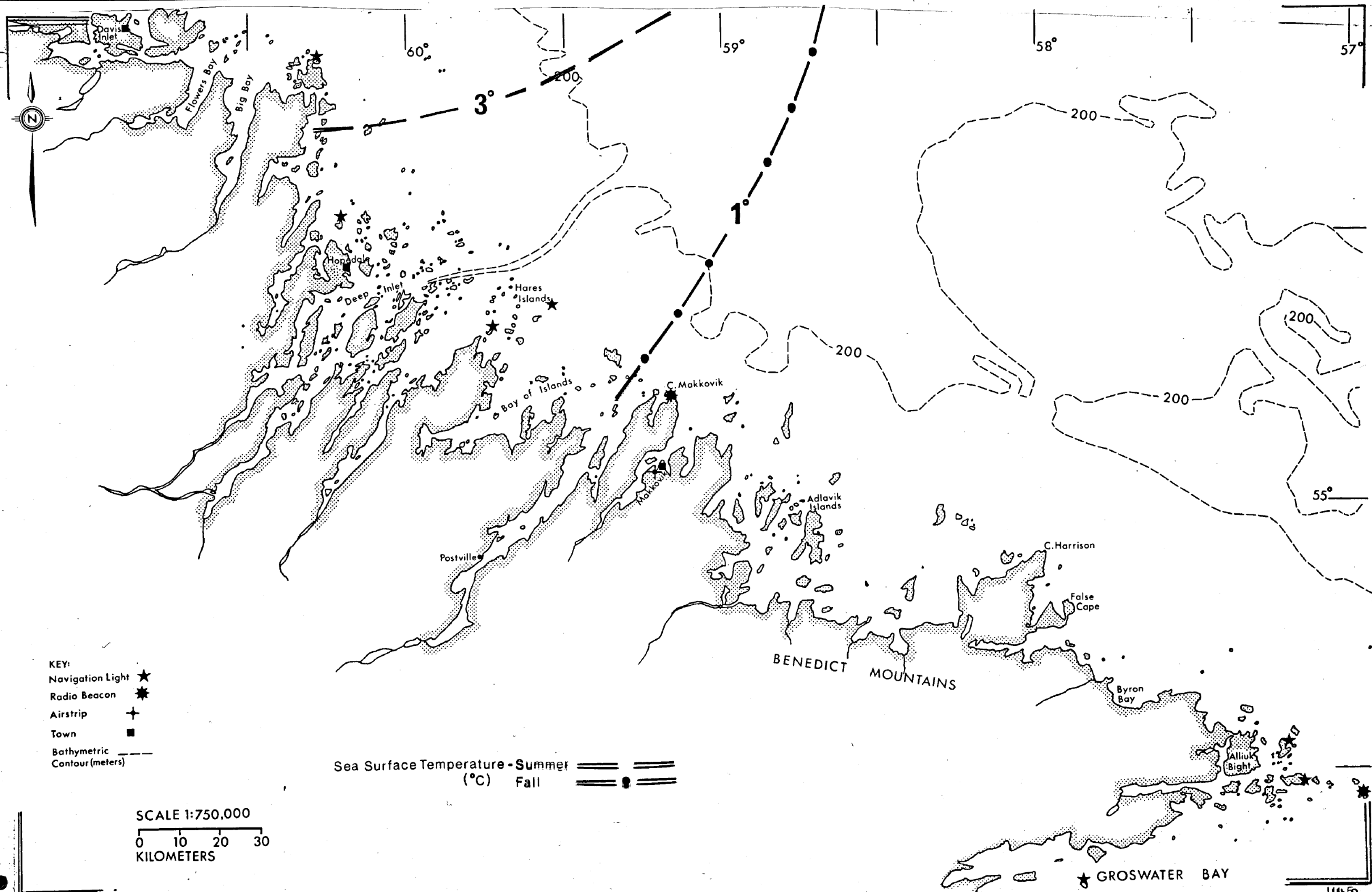
KEY:  
 Navigation Light ★  
 Radio Beacon ★  
 Airstrip +  
 Town ■  
 Bathymetric Contour (meters) ---

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

Iceberg Distribution  
 Spring - SP  
 Summer - SM

BENEDICT MOUNTAINS

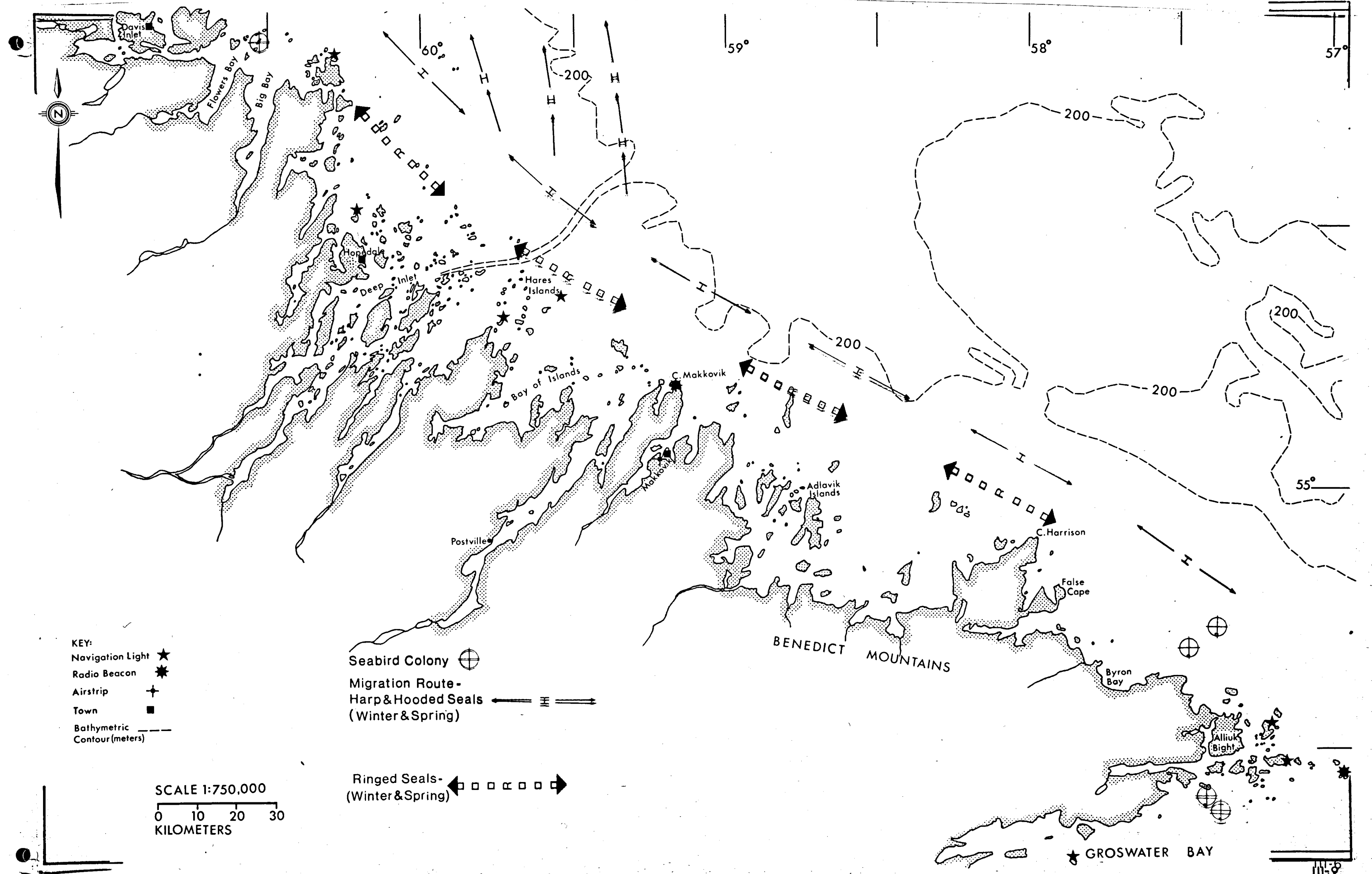
GROSWATER BAY



- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - - -

Sea Surface Temperature - Summer (°C)   
 Fall

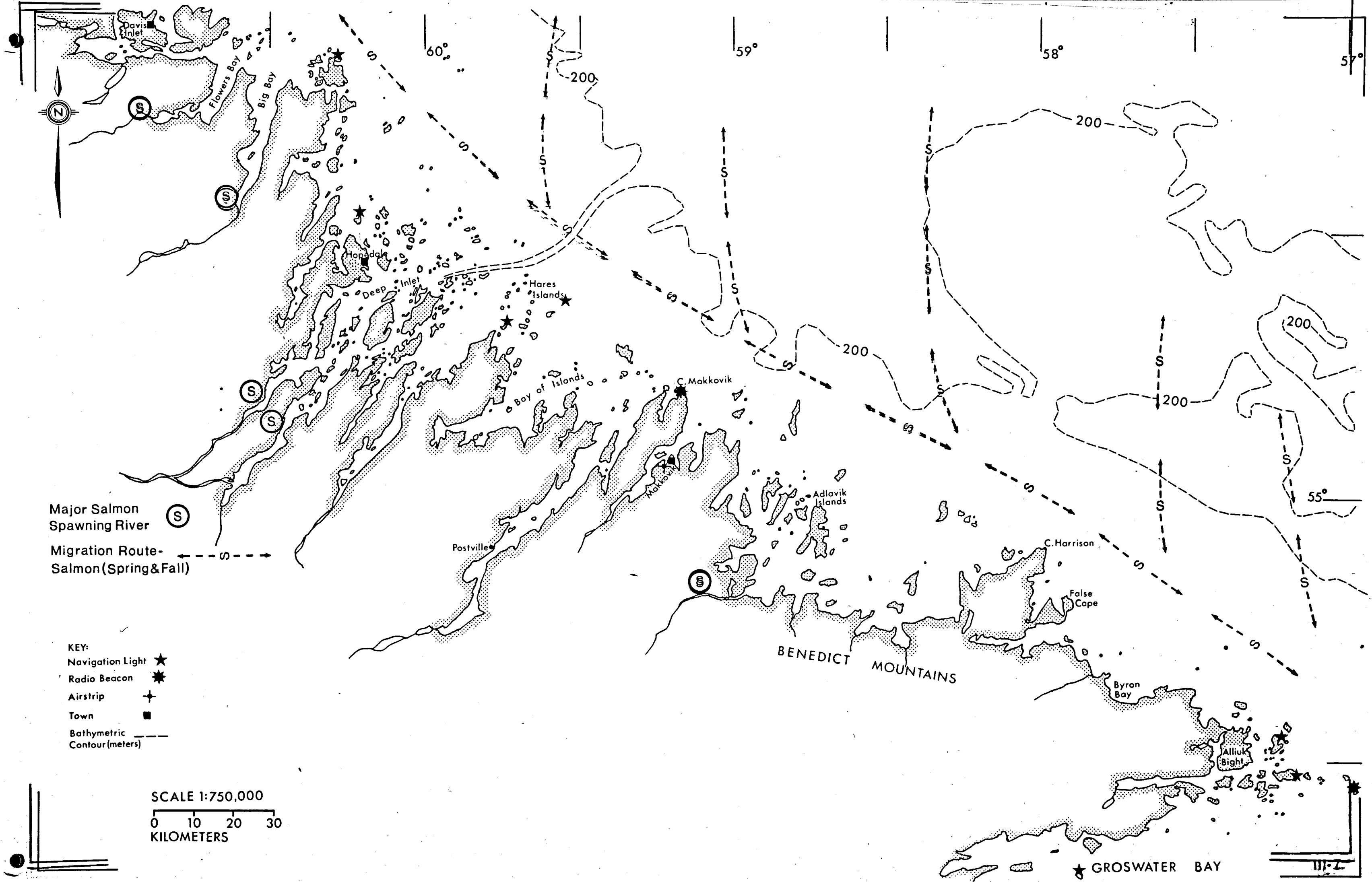
SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS



- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

- Seabird Colony ⊕
- Migration Route - Harp & Hooded Seals (Winter & Spring) ⇄
- Ringed Seals - (Winter & Spring) ◻ ◻ ◻ ◻ ◻ ◻ ◻ ◻

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS



Major Salmon Spawning River (S)

Migration Route-Salmon (Spring & Fall) (S)

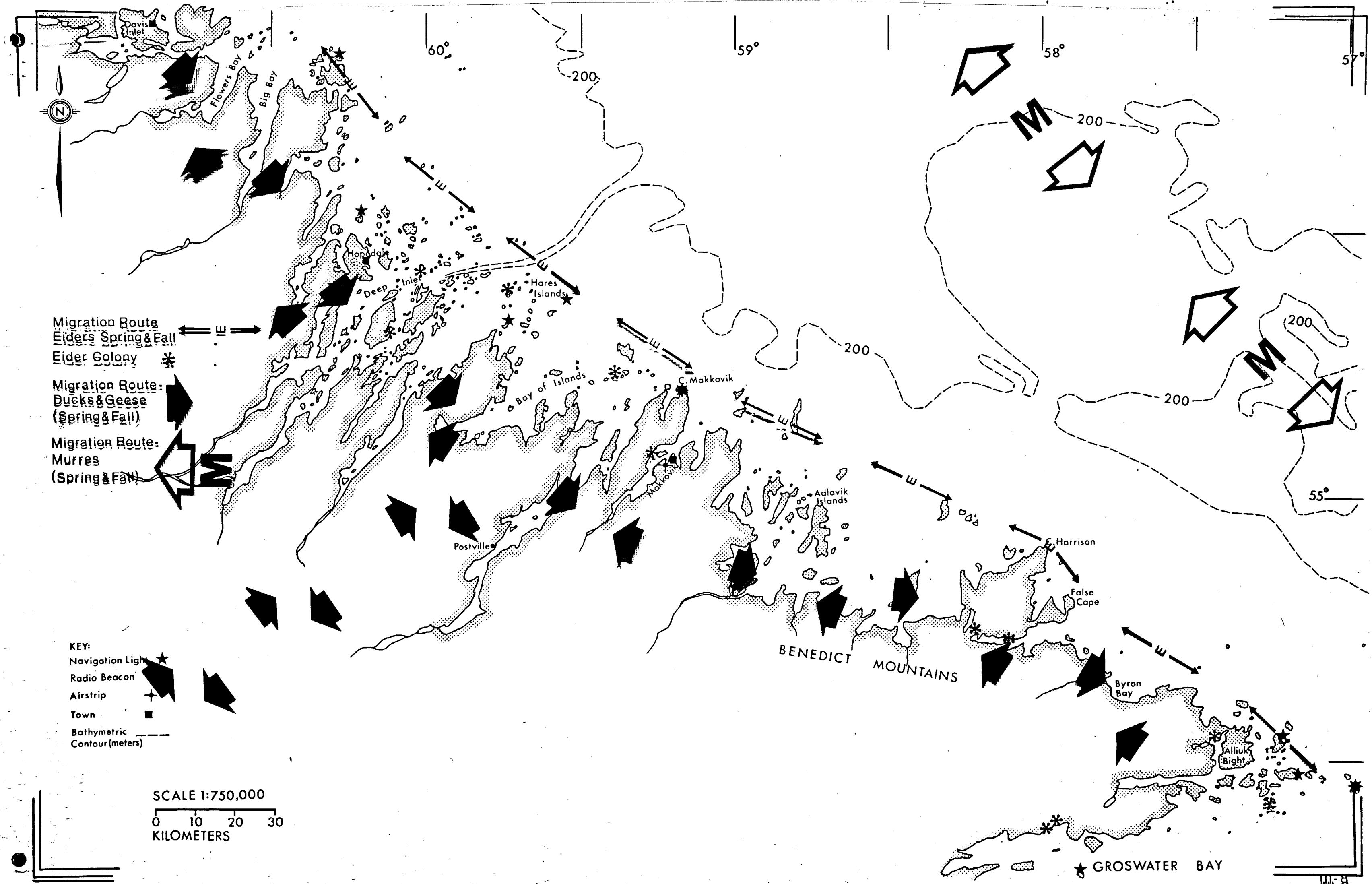
- KEY:
- Navigation Light ★
  - Radio Beacon ★
  - Airstrip +
  - Town ■
  - Bathymetric Contour (meters) - - -

SCALE 1:750,000

0 10 20 30

KILOMETERS

★ GROS WATER BAY



Migration Route  
Eiders (Spring & Fall)

Eider Colony \*

Migration Route:  
Ducks & Geese  
(Spring & Fall)

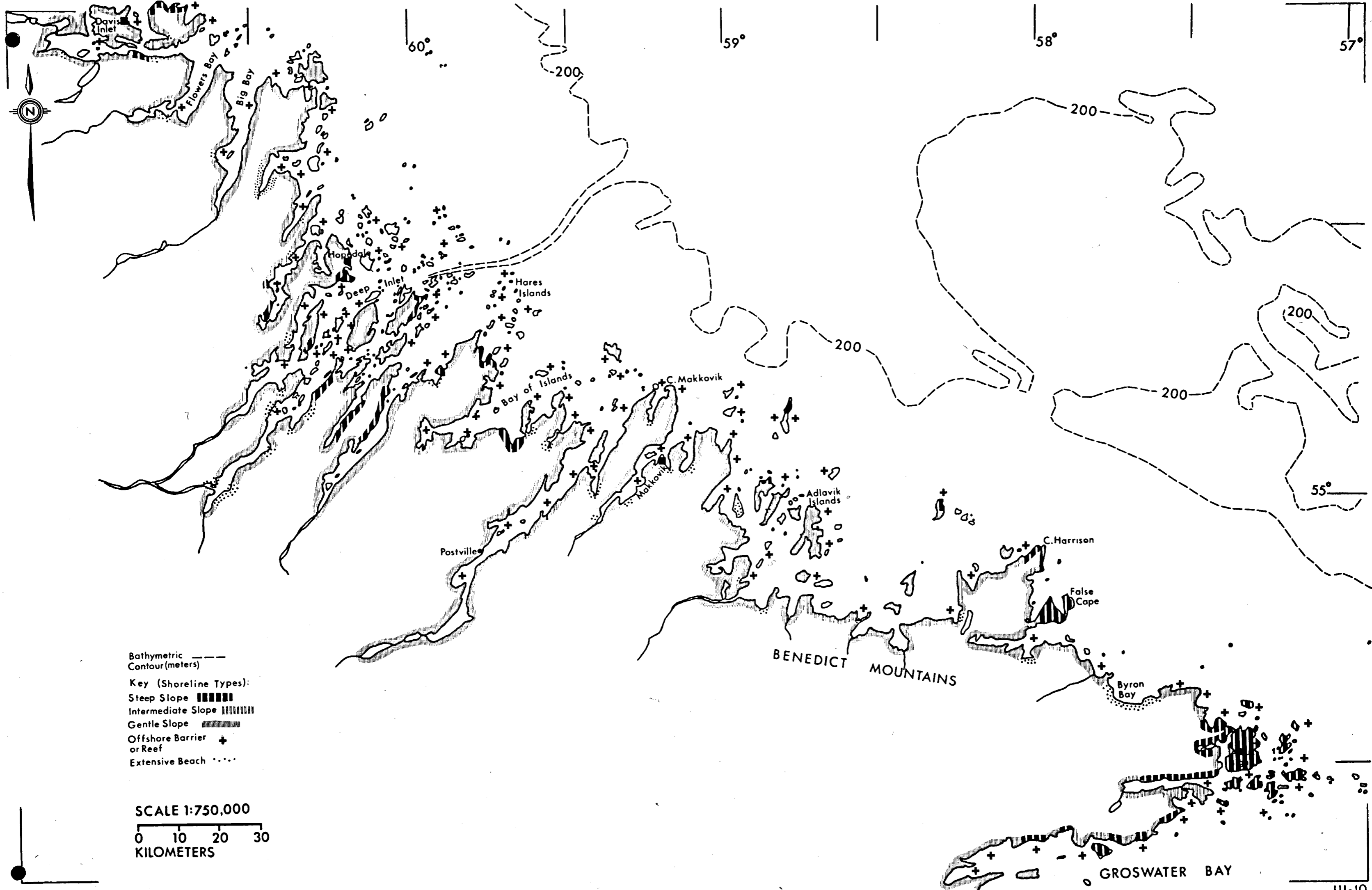
Migration Route:  
Murres  
(Spring & Fall)

KEY:

- Navigation Light \*
- Radio Beacon →
- Airstrip +
- Town ■
- Bathymetric Contour (meters) - - -

SCALE 1:750,000

0 10 20 30  
KILOMETERS



Bathymetric Contour (meters) ---

- Key (Shoreline Types):
- Steep Slope
  - Intermediate Slope
  - Gentle Slope
  - Offshore Barrier or Reef
  - Extensive Beach

SCALE 1:750,000

0 10 20 30  
KILOMETERS

**ENVIRONMENTAL ATLAS**  
**OF**  
**COASTAL LABRADOR**

**SECTION IV**

**Okak Islands to  
Davis Inlet**

ENVIRONMENTAL EMERGENCY DIVISION

ENVIRONMENTAL PROTECTION SERVICE

ATLANTIC REGION

MARCH 1978

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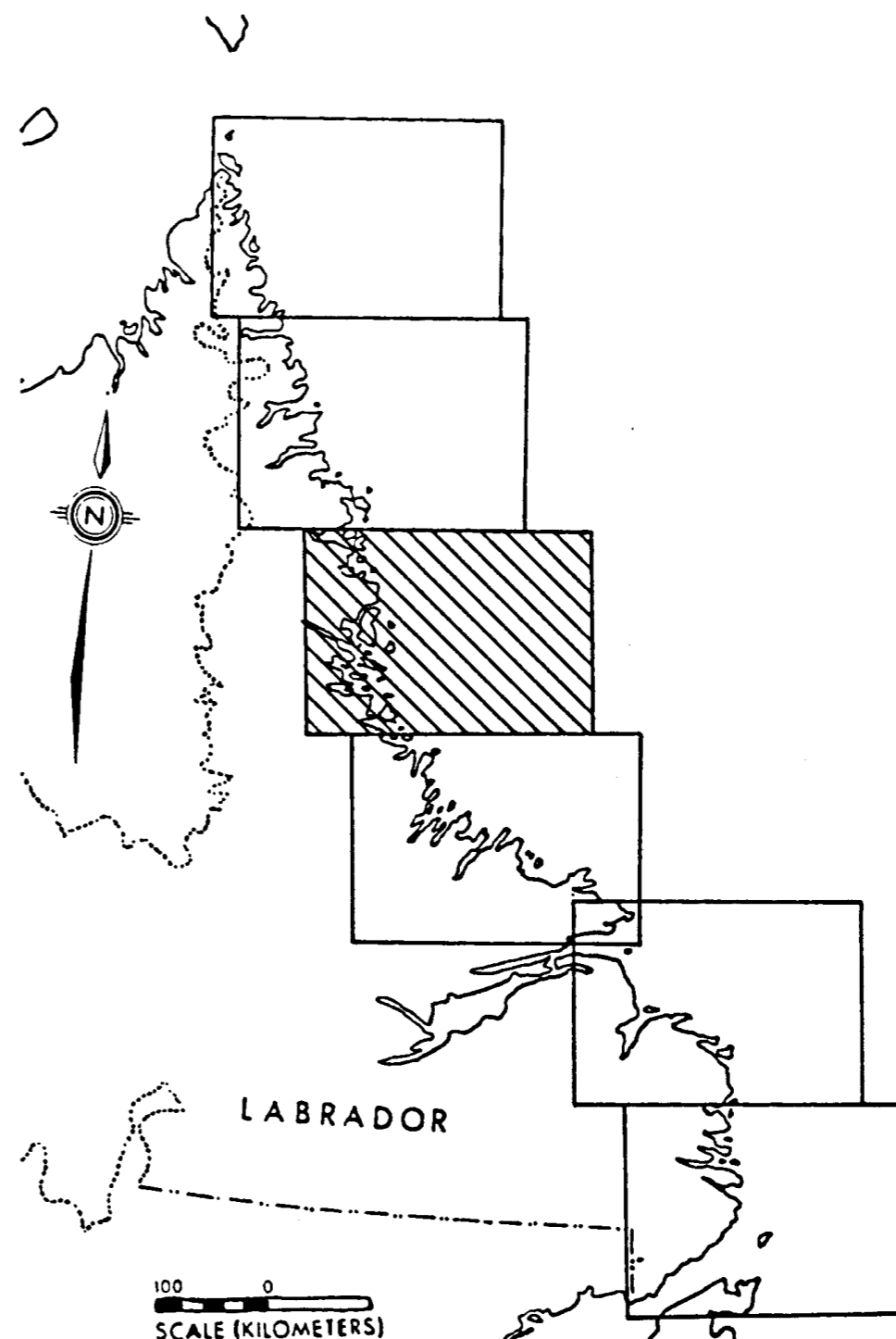
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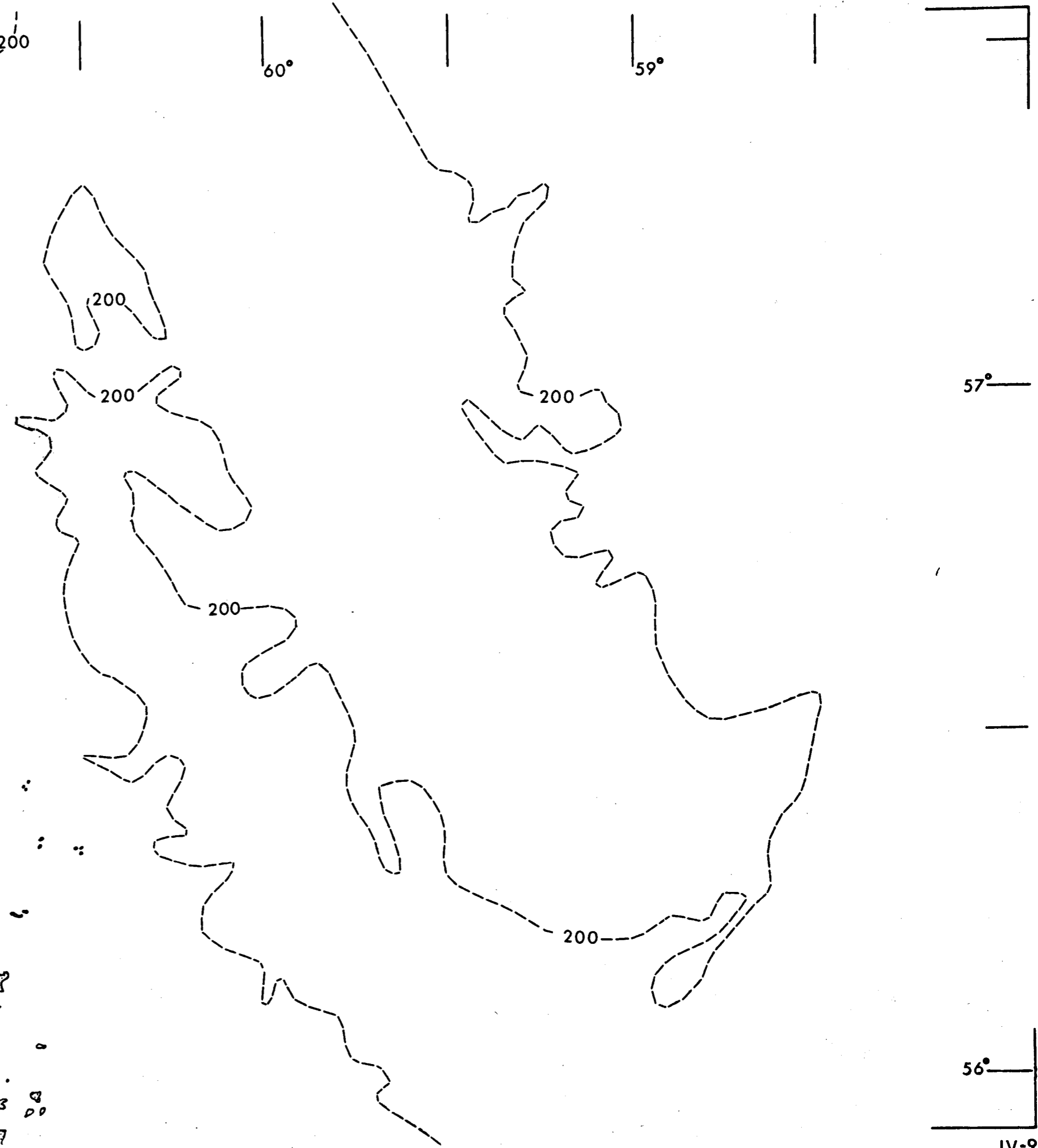
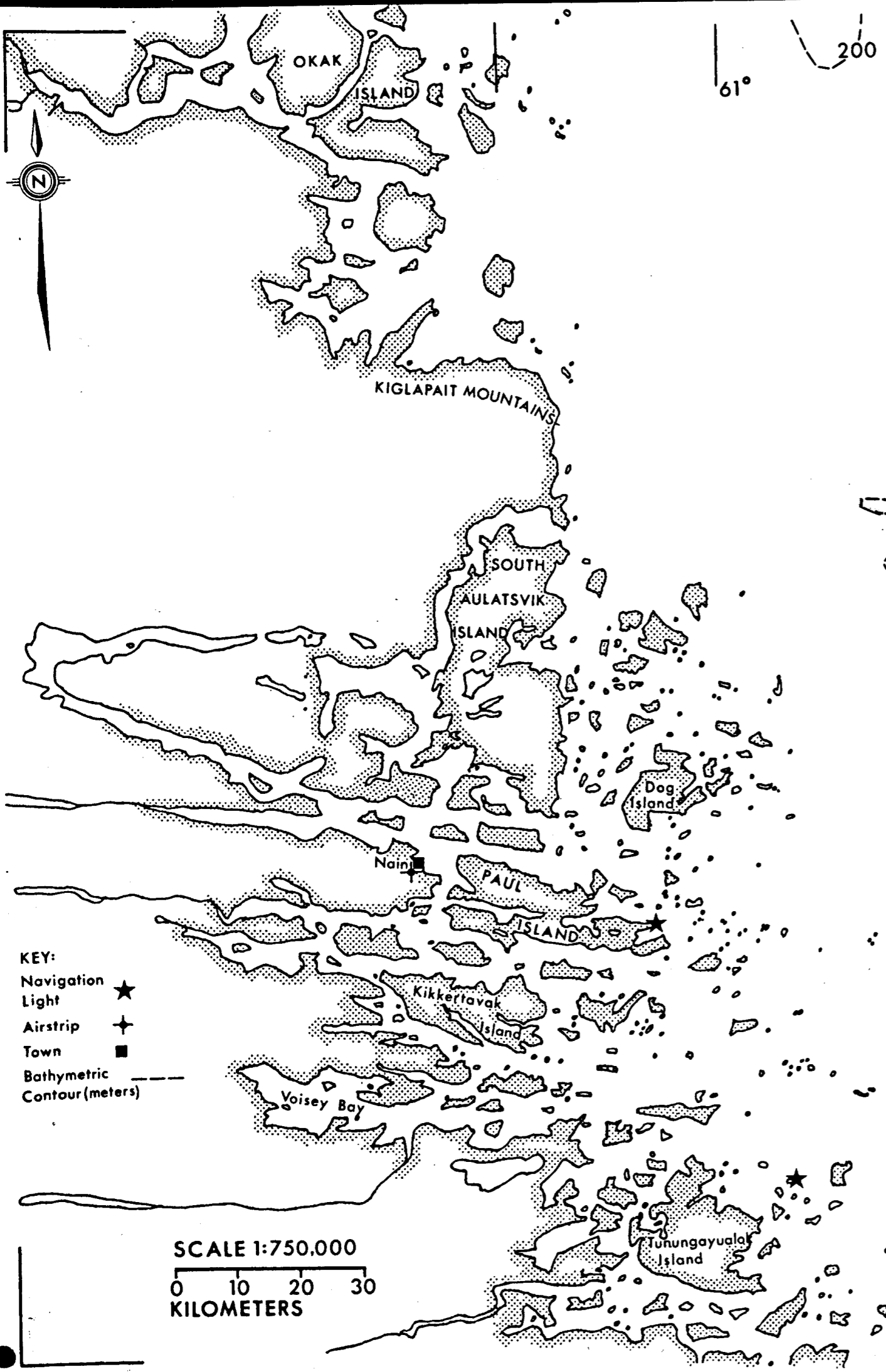
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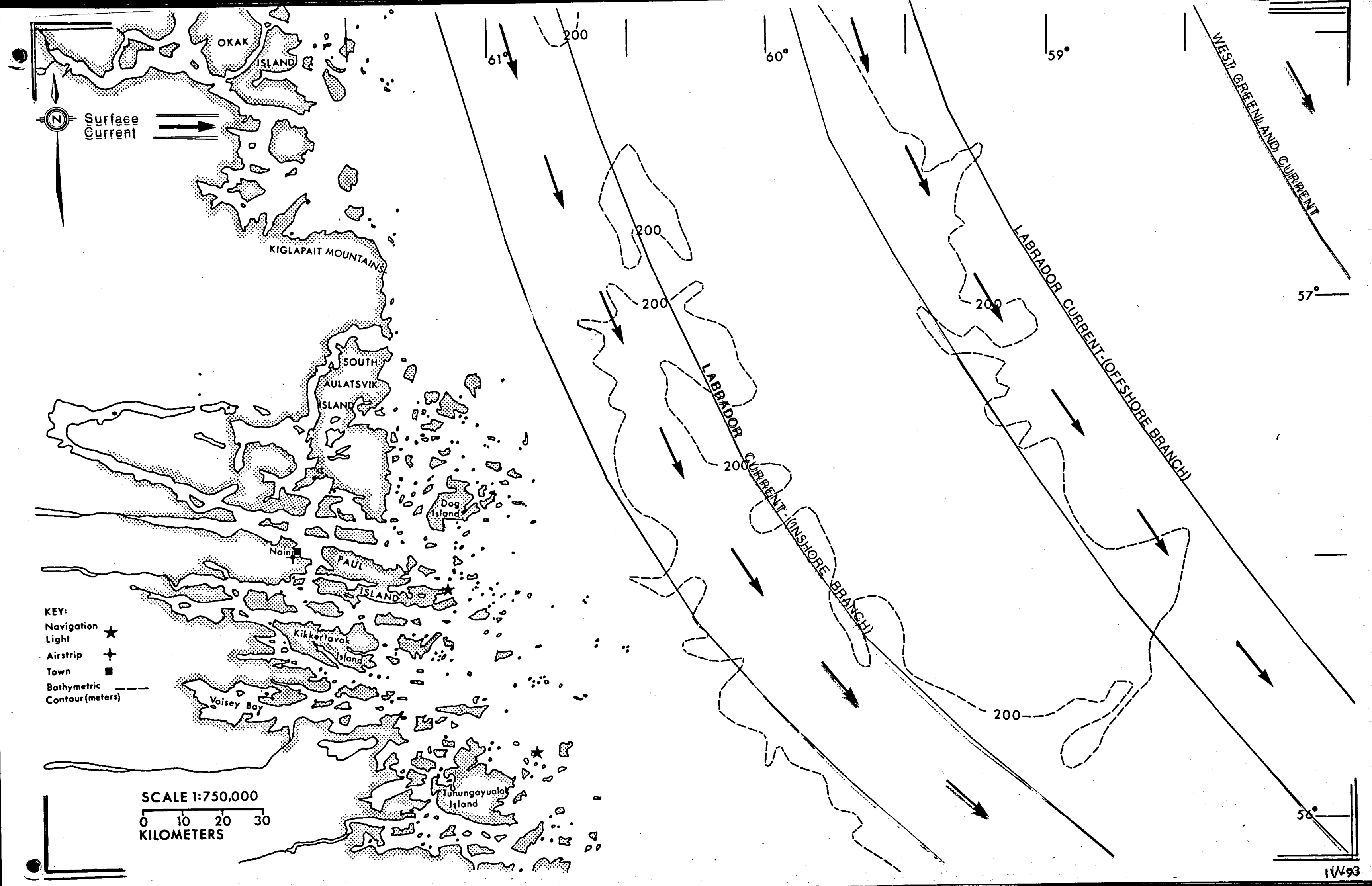
THE LABRADOR COAST HAS BEEN SUBDIVIDED INTO SIX SECTIONS:

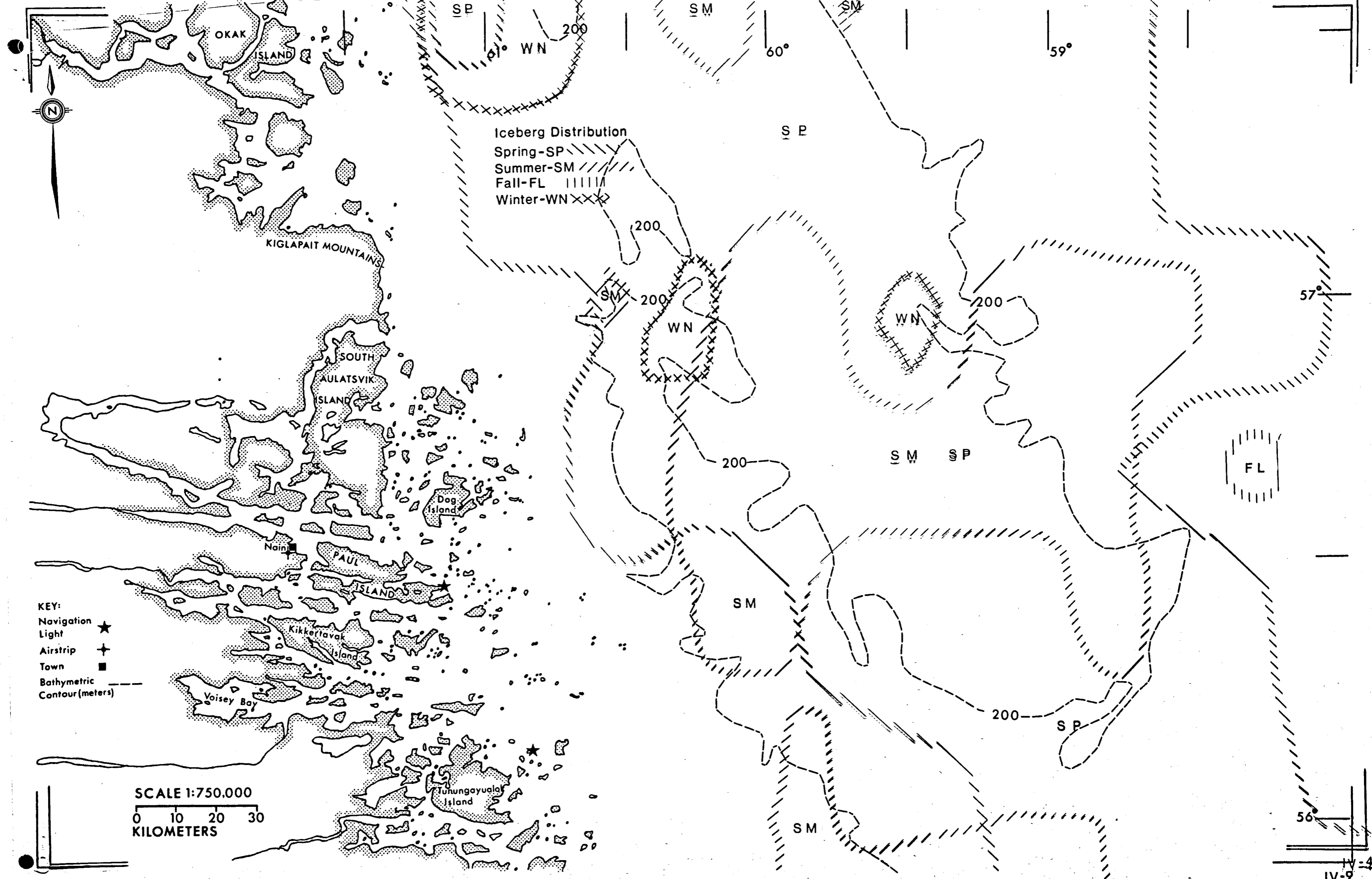
- I BLANC-SABLON TO SQUARE ISLAND
- II GROSWATER BAY TO HAWKE HARBOUR
- III DAVIS INLET TO GROSWATER BAY
- IV OKAK ISLANDS TO DAVIS INLET
- V NACHVAK BAY TO OKAK ISLANDS
- VI CAPE CHIDLEY TO NACHVAK BAY

THESE ARE INDICATED BY THE SKETCH MAP BELOW (THE SHADED PORTION SHOWS THE AREA COVERED IN THIS SECTION).











OKAK ISLAND

61°

200

60°

59°

-1°

-1°

3°

1°

57°

Sea Surface Temperature  
 Spring □  
 Summer —  
 Fall ●  
 Winter ●

KIGLAPAIT MOUNTAINS

SOUTH AULATSVIK ISLAND

Dog Island

Nain

PAUL ISLAND

Kikkertavak Island

Voisey Bay

Tunungayala Island

200

200

200

200

200

KEY:  
 Navigation Light ★  
 Airstrip ✦  
 Town ■  
 Bathymetric Contour (meters) - - -

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

56°





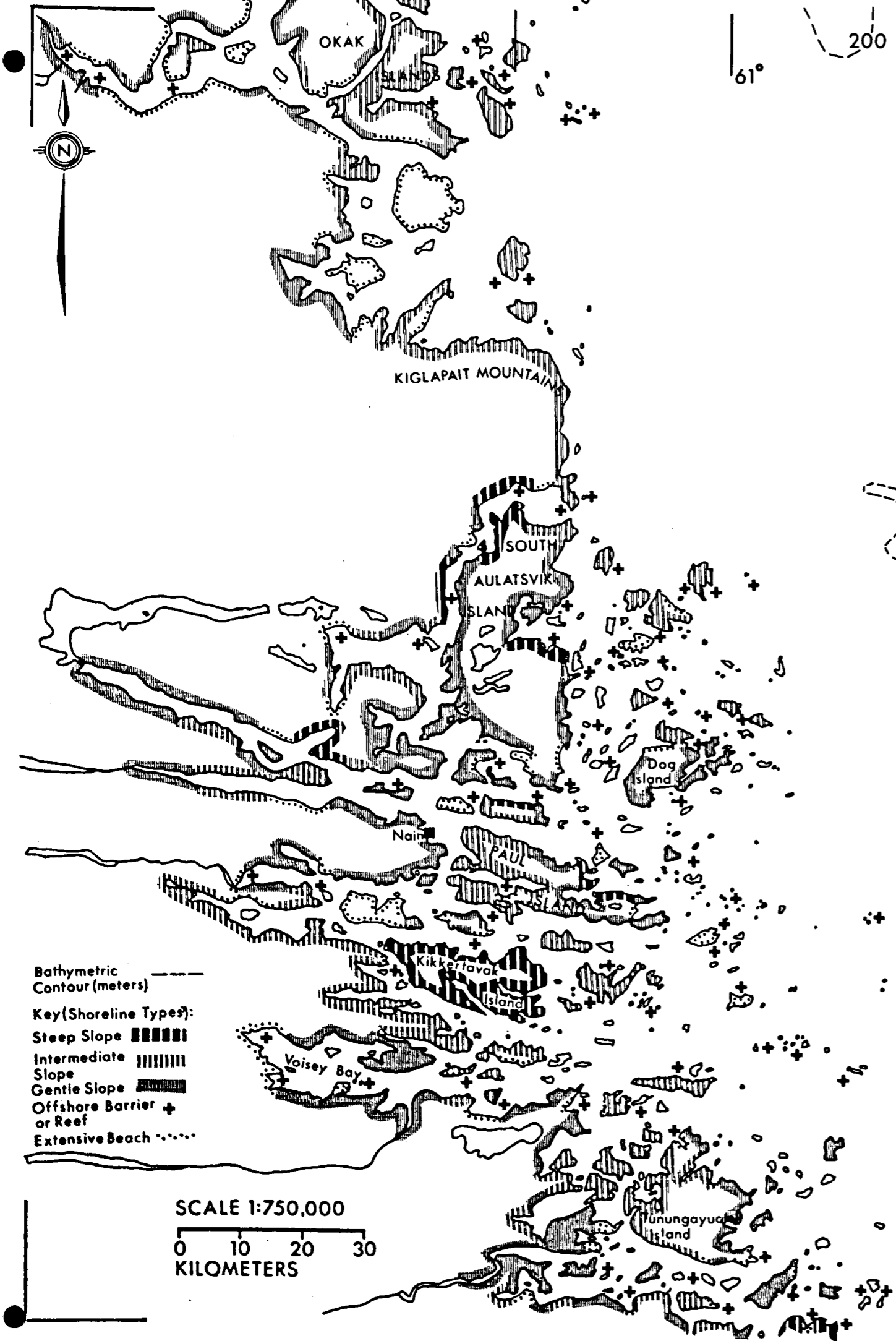
Migration Route:  
 Salmon (Spring & Fall)  $\dashrightarrow$   
 Char Fishing Area  $\square$   
 Sealion Bed  $\triangle$

KEY:  
 Navigation Light  $\star$   
 Airstrip  $\dagger$   
 Town  $\blacksquare$   
 Bathymetric Contour (meters)  $- - -$

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

56°  
 14-9

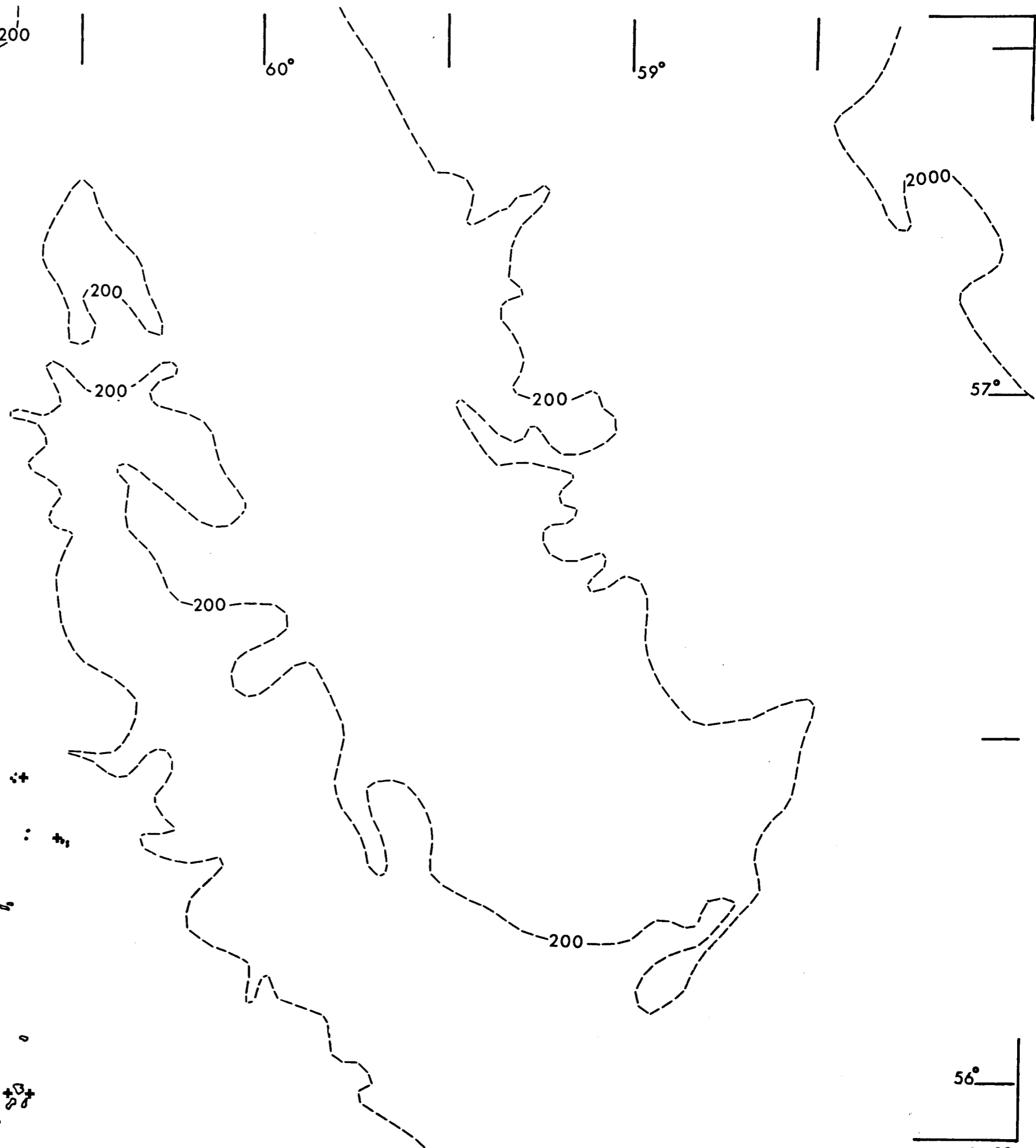




- Bathymetric Contour (meters) - - - - -
- Key (Shoreline Types):
- Steep Slope [hachured lines]
  - Intermediate Slope [hachured lines]
  - Gentle Slope [hachured lines]
  - Offshore Barrier or Reef +
  - Extensive Beach [dotted line]

SCALE 1:750,000

0 10 20 30  
KILOMETERS



56°

**ENVIRONMENTAL ATLAS**  
**OF**  
**COASTAL LABRADOR**

**SECTION V**

**Nachvak Bay to**  
**Okak Islands**

**ENVIRONMENTAL EMERGENCY DIVISION**

**ENVIRONMENTAL PROTECTION SERVICE**

**ATLANTIC REGION**

**MARCH 1978**

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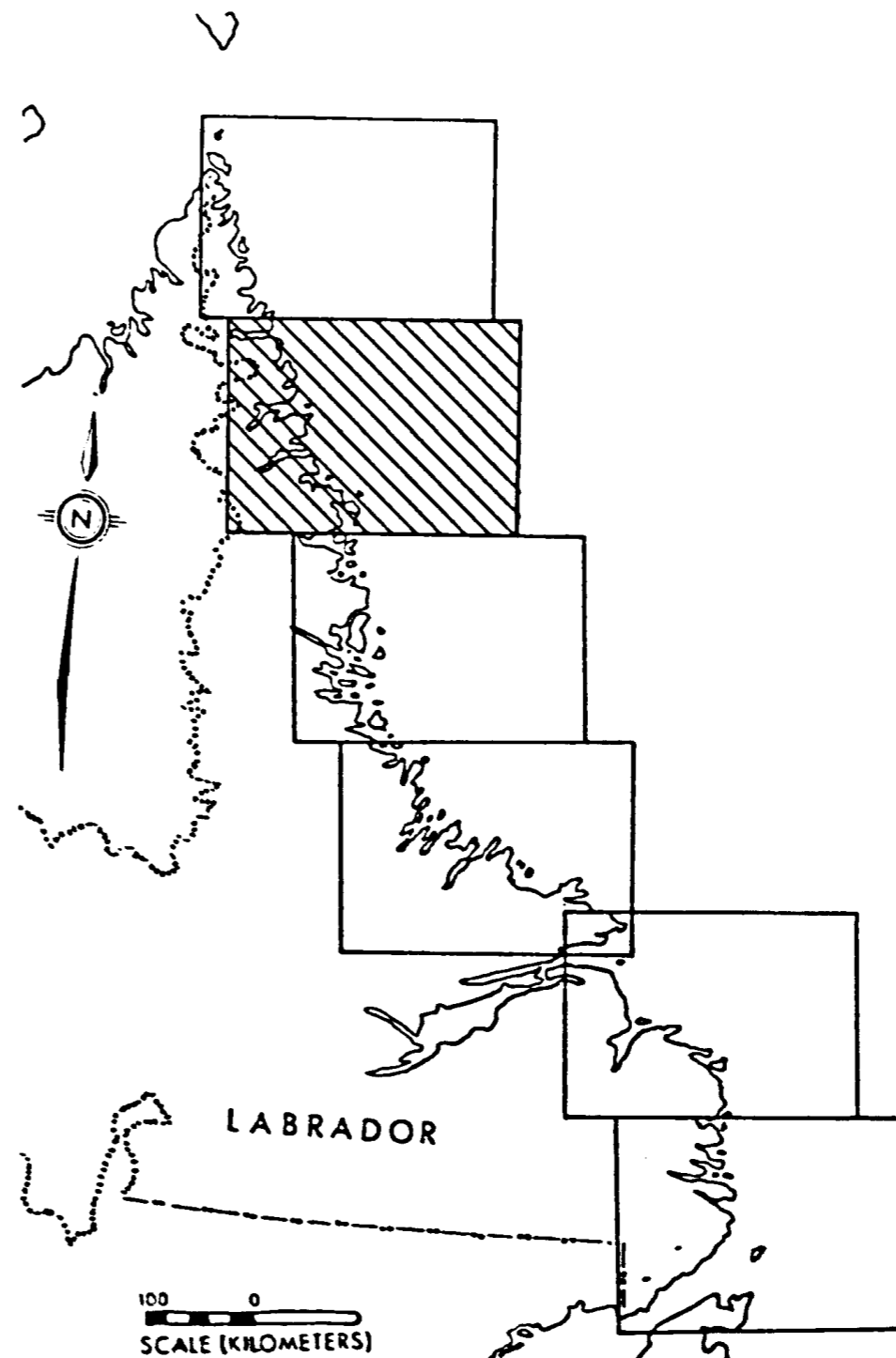
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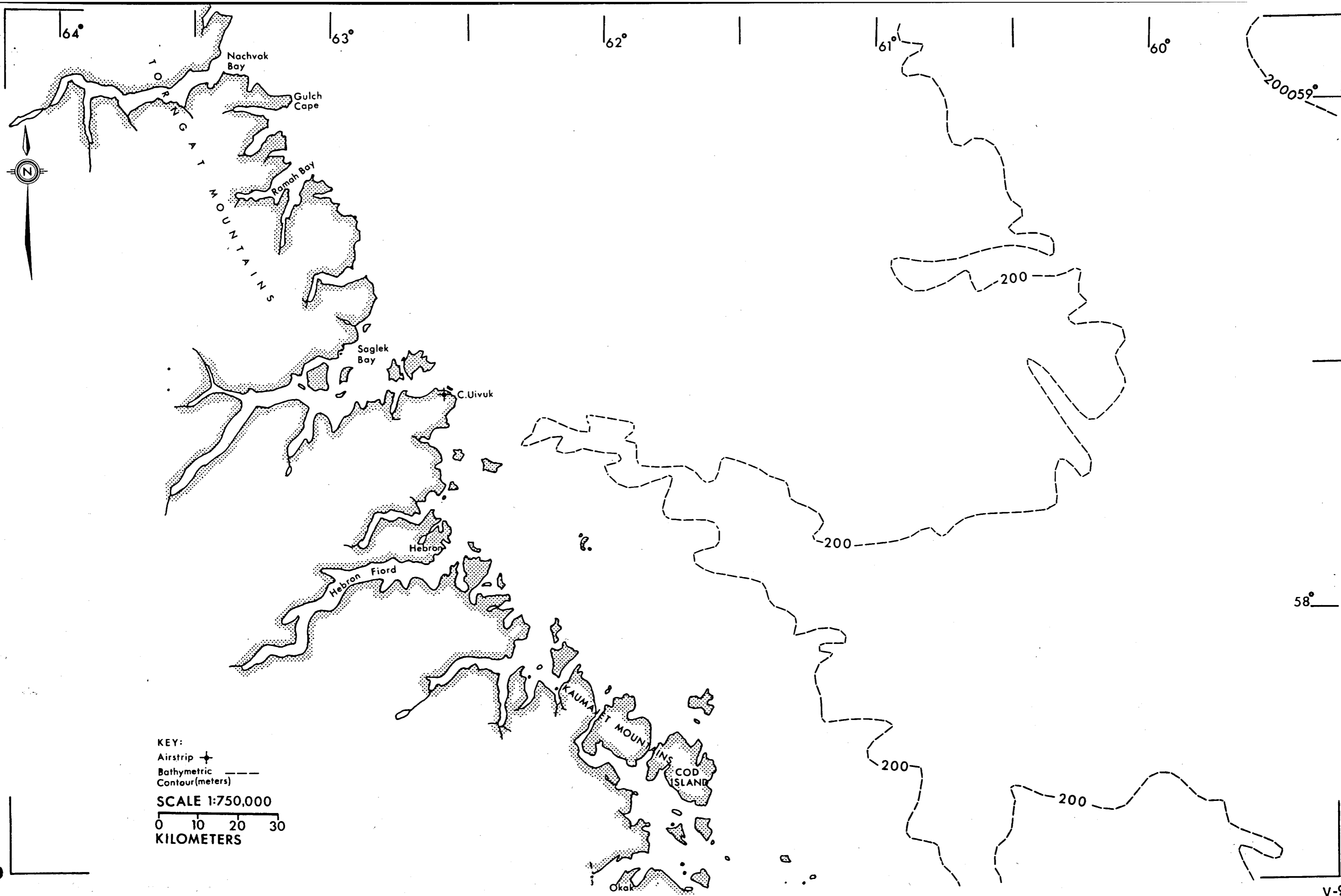
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- II GROSWATER BAY TO HAWKE HARBOUR
- III DAVIS INLET TO GROSWATER BAY
- IV OKAK ISLANDS TO DAVIS INLET
- V NACHVAK BAY TO OKAK ISLANDS
- VI CAPE CHIDLEY TO NACHVAK BAY

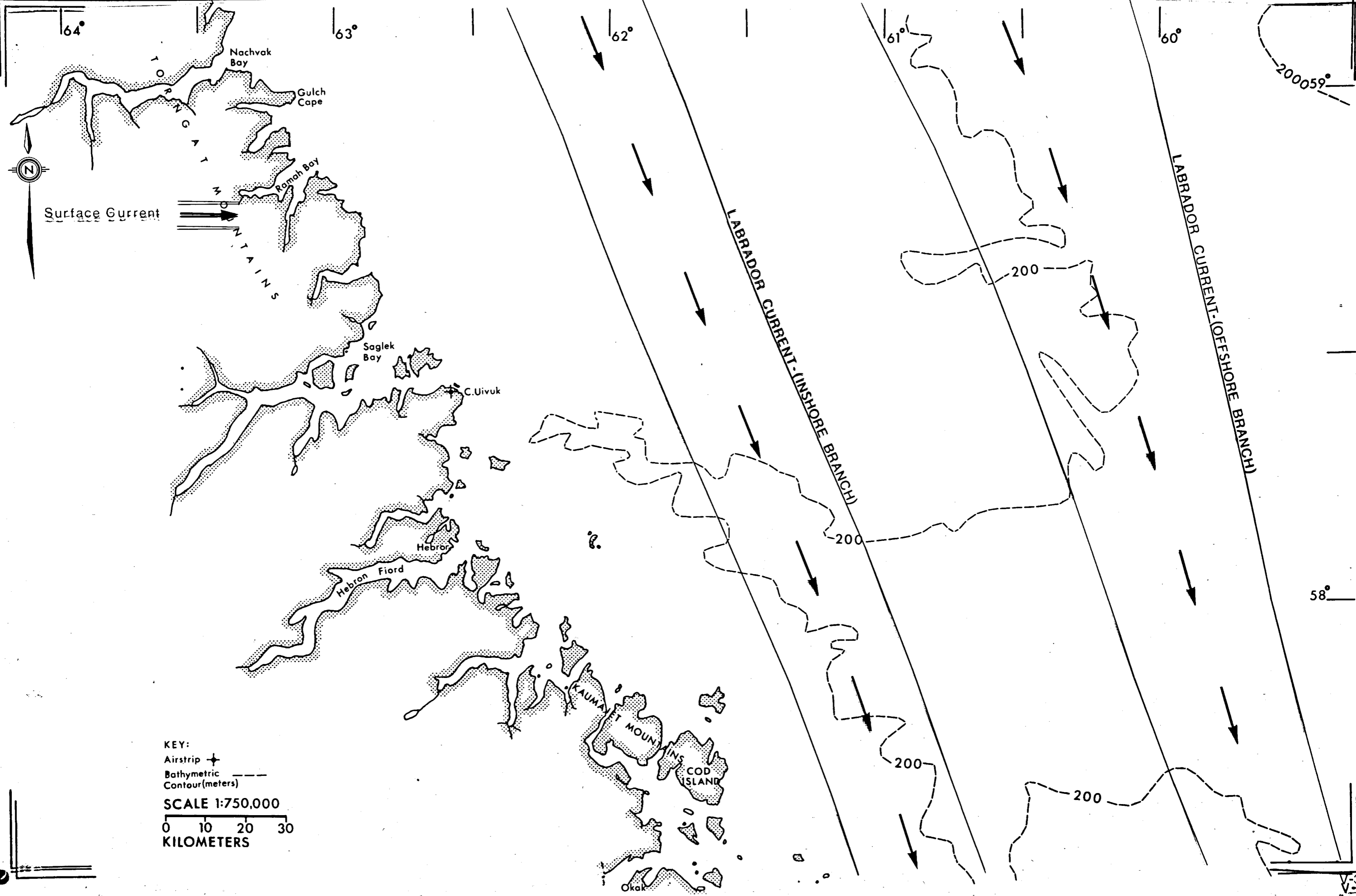
THESE ARE INDICATED BY THE SKETCH MAP BELOW (THE SHADED PORTION SHOWS THE AREA COVERED IN THIS SECTION).





KEY:  
 Airstrip +  
 Bathymetric Contour (meters) - - - -

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS



Surface Current

LABRADOR CURRENT - (INSHORE BRANCH)



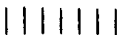

LABRADOR CURRENT - (OFFSHORE BRANCH)



KEY:  
 Airstrip +  
 Bathymetric Contour (meters) ---  
 SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

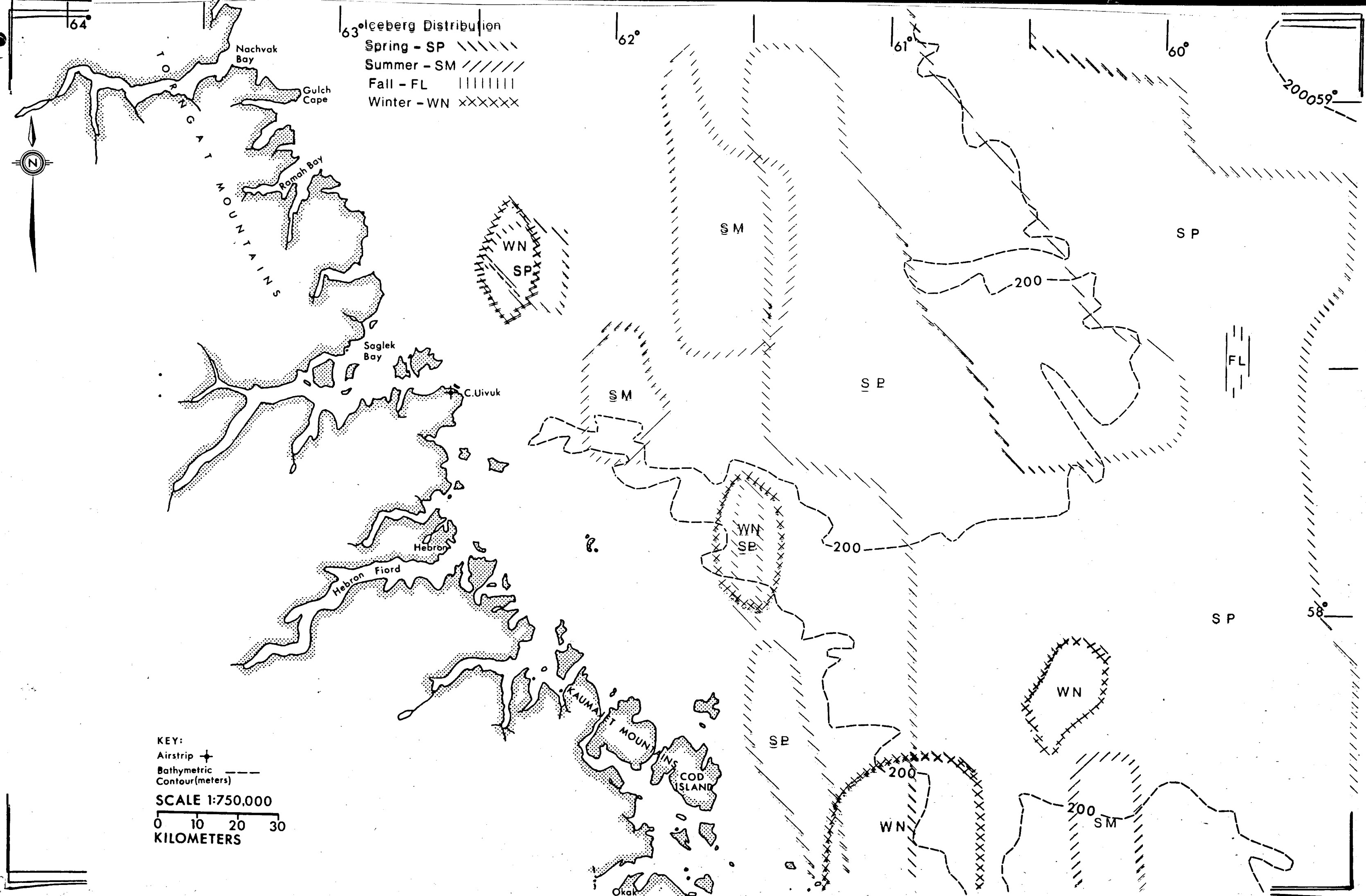
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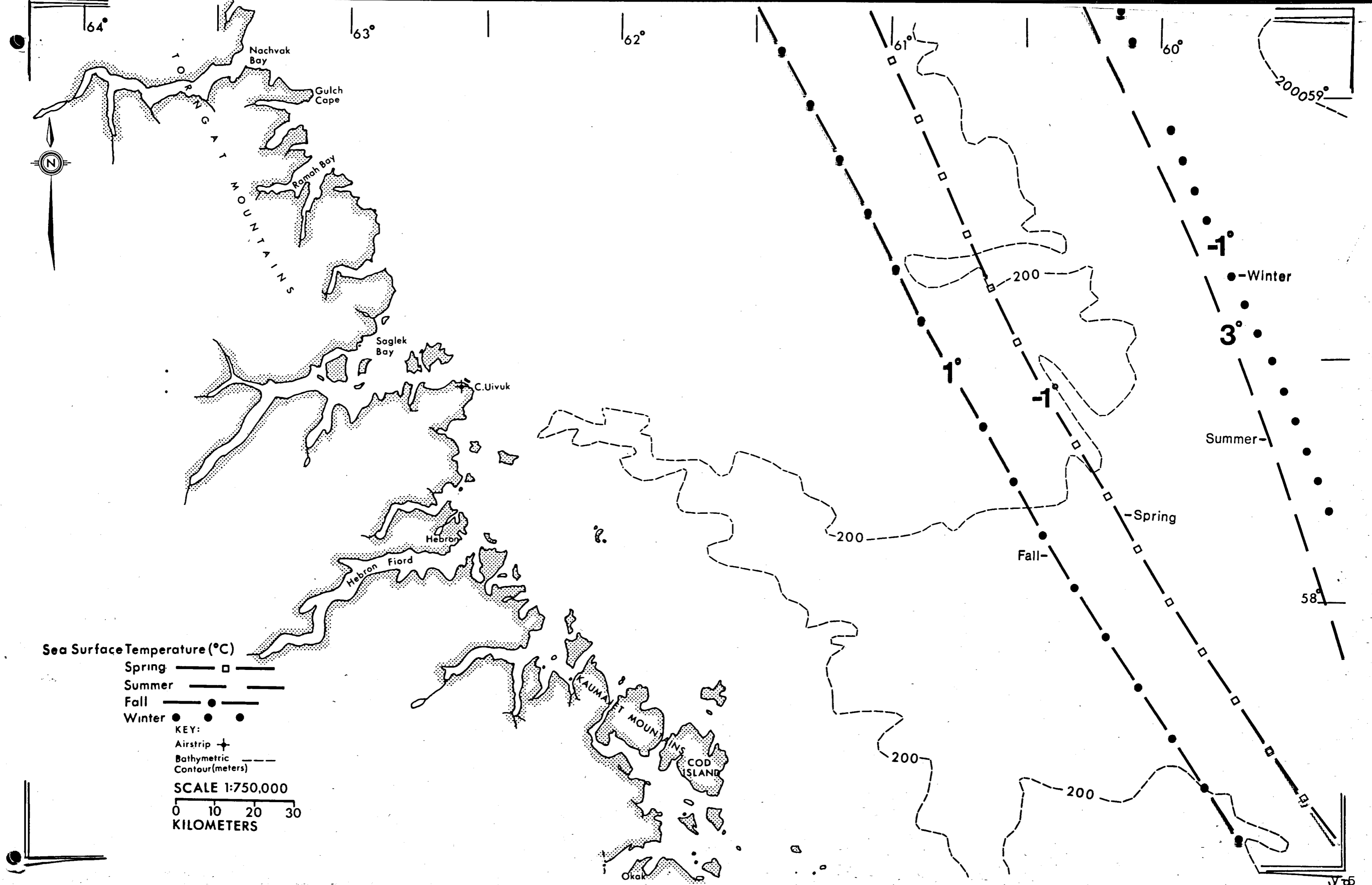
58°

V-3

Iceberg Distribution  
 Spring - SP   
 Summer - SM   
 Fall - FL   
 Winter - WN 

KEY:  
 Airstrip   
 Bathymetric Contour (meters)   
 SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS





64°

63°

62°

61°

60°

200059°

Nachvak Bay  
Gulch Cape  
Ramah Bay  
Saglek Bay  
C. Uivuk  
Hebron  
Hebron Fiord  
KAUMAYIT MOUNTAINS  
COD ISLAND  
Okak

-1°  
-Winter  
3°  
Summer-

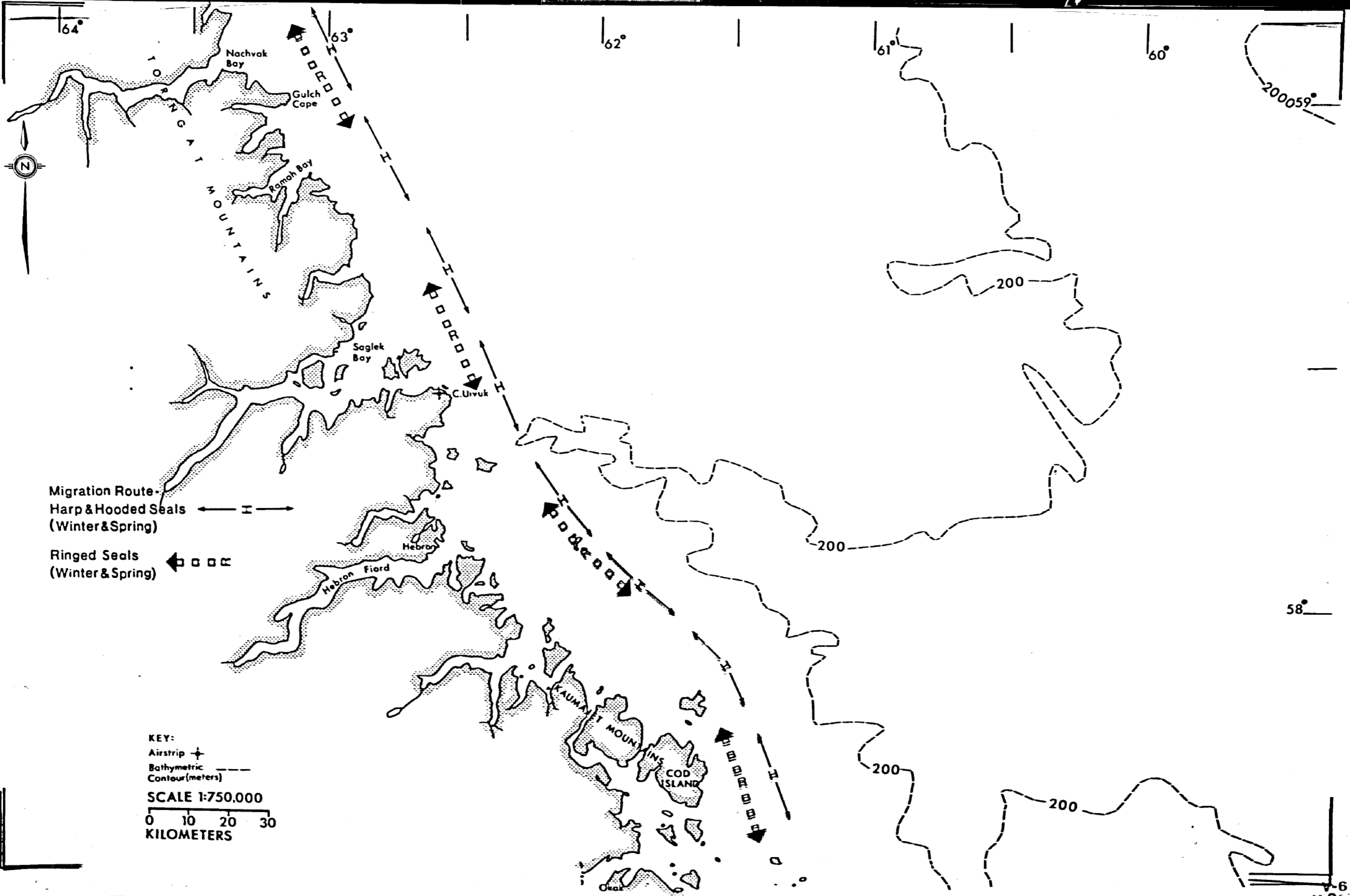
-Spring  
Fall-

58°

Sea Surface Temperature (°C)  
Spring — □ —  
Summer — —  
Fall — ● —  
Winter ● ● ●

KEY:  
Airstrip +  
Bathymetric Contour (meters) - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS



Migration Route  
Harp & Hooded Seals  
(Winter & Spring) ← — — — — — →

Ringed Seals  
(Winter & Spring) ← □ □ □ □ □

KEY:  
Airstrip +  
Bathymetric Contour (meters) - - - - -  
SCALE 1:750,000  
0 10 20 30  
KILOMETERS

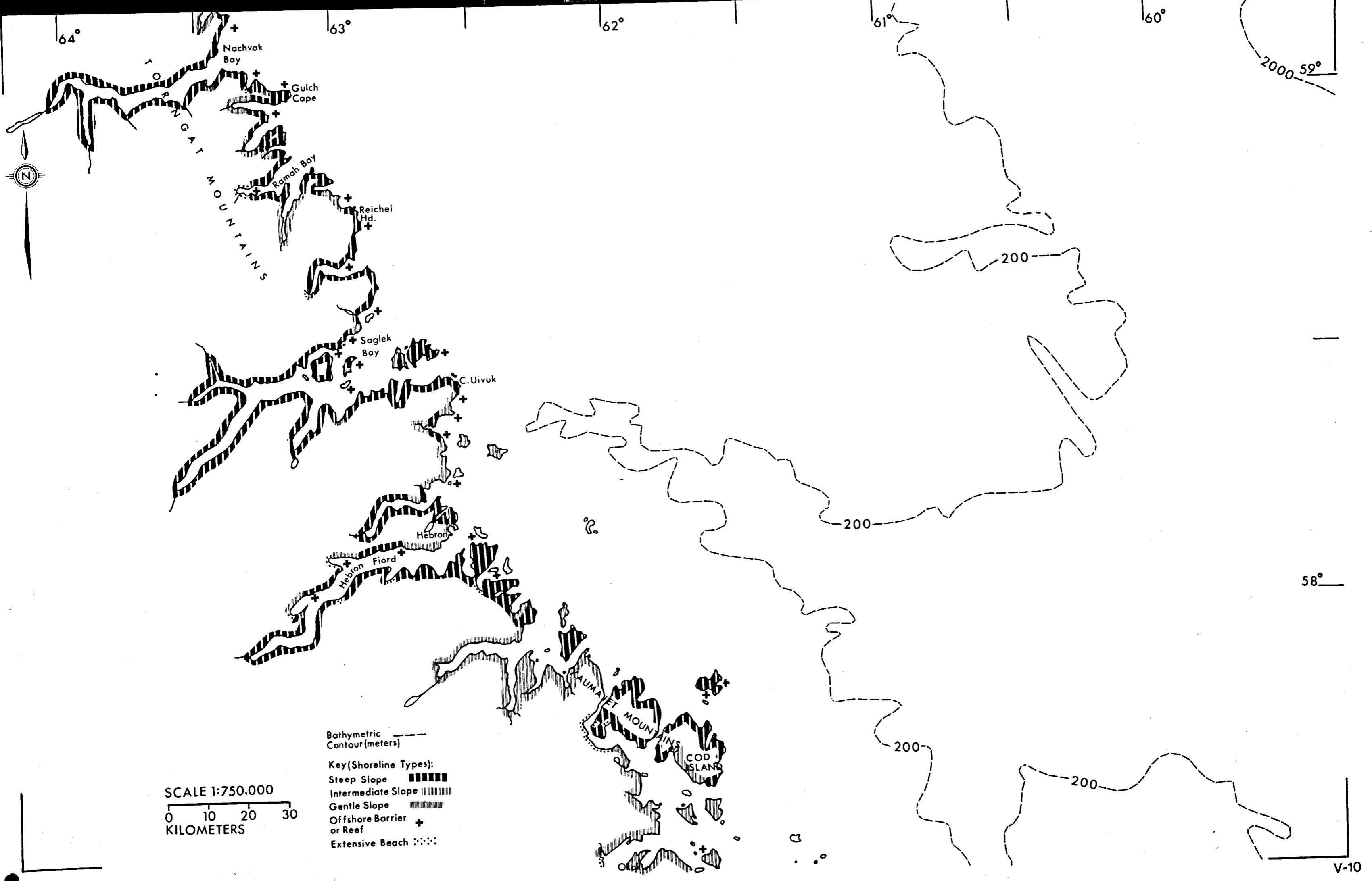
200059

58°

V-6  
V-9







SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS

Bathymetric Contour (meters) ---  
 Key (Shoreline Types):  
 Steep Slope ██████████  
 Intermediate Slope |||||  
 Gentle Slope |||||  
 Offshore Barrier or Reef +  
 Extensive Beach ····

**ENVIRONMENTAL ATLAS**  
**OF**  
**COASTAL LABRADOR**

**SECTION VI**

**Cape Chidley to**  
**Nachvak Bay**

**ENVIRONMENTAL EMERGENCY DIVISION**

**ENVIRONMENTAL PROTECTION SERVICE**

**ATLANTIC REGION**

**MARCH 1978**

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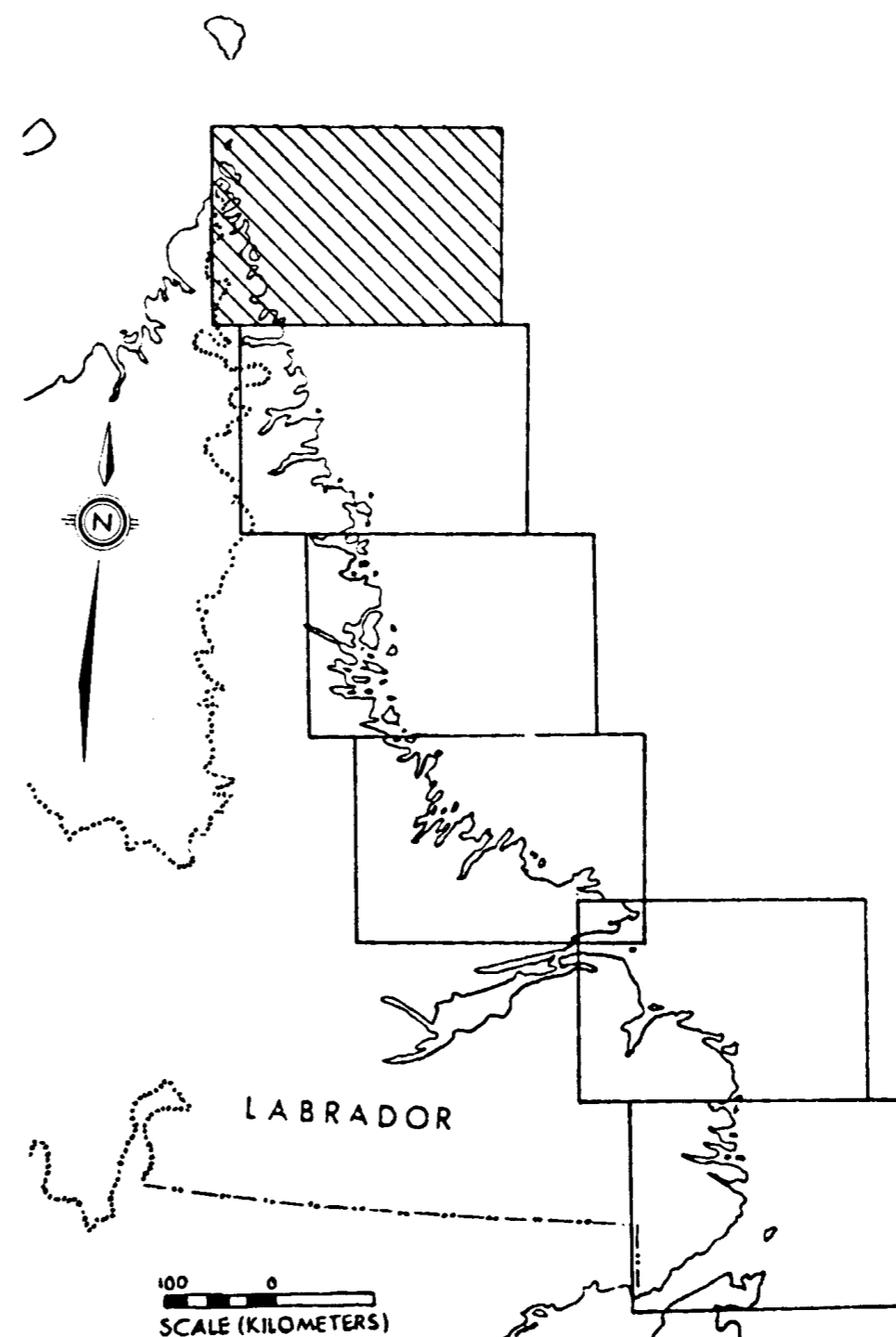
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- V NACHVAK BAY TO OKAK ISLANDS
- VI CAPE CHIDLEY TO NACHVAK BAY

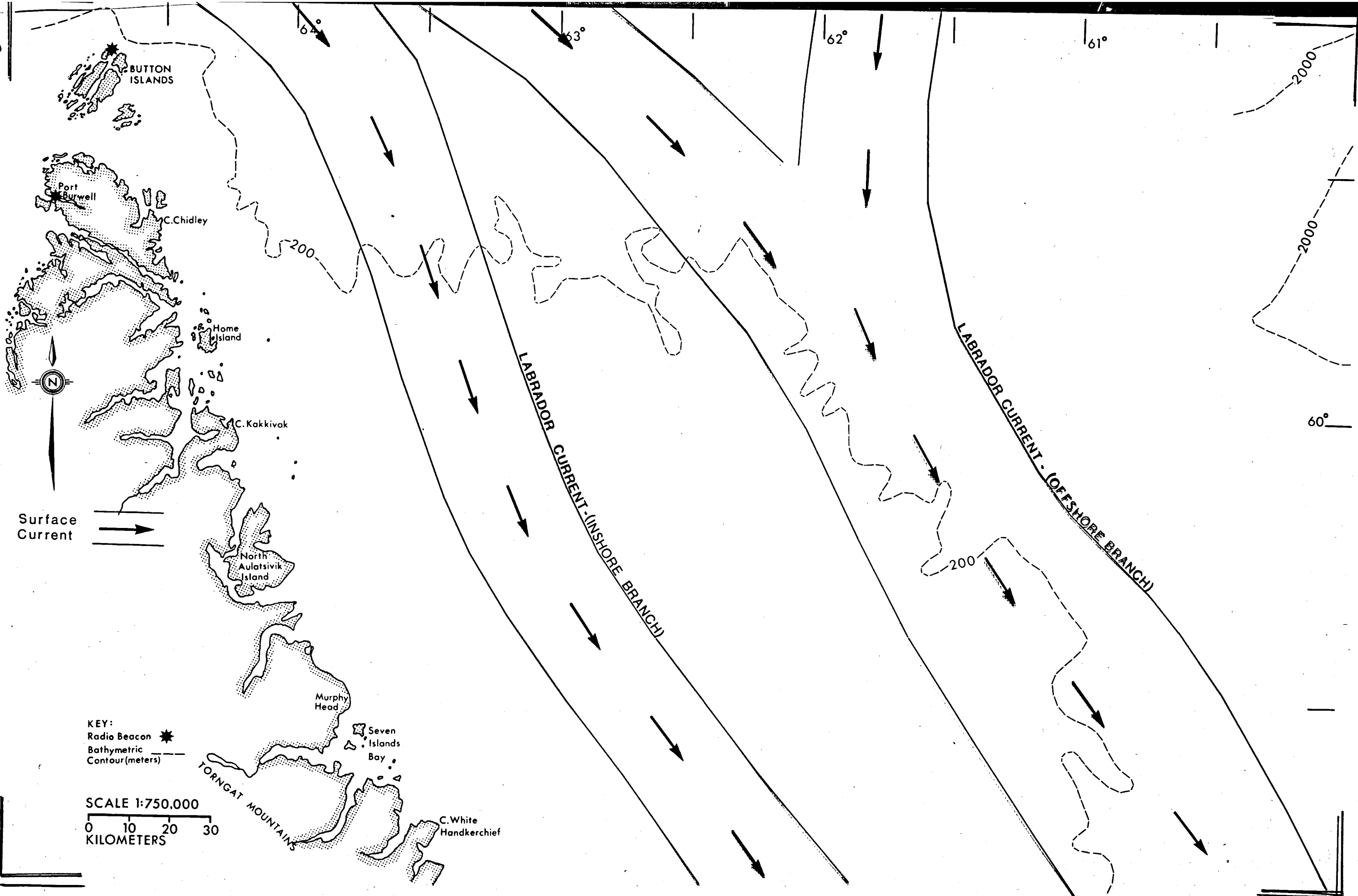
THESE ARE INDICATED BY THE SKETCH MAP BELOW (THE SHADED PORTION SHOWS THE AREA COVERED IN THIS SECTION).





KEY:  
Radio Beacon \*  
Bathymetric Contour (meters) - - -

SCALE 1:750,000  
0 10 20 30  
KILOMETERS



BUTTON ISLANDS

Port Burwell

C. Chidley

Home Island

C. Kakkivak

North Aulatsivik Island

Murphy Head

Seven Islands Bay

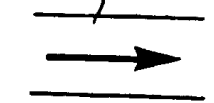
TORNGAT MOUNTAINS

C. White Handkerchief

LABRADOR CURRENT - (INSHORE BRANCH)

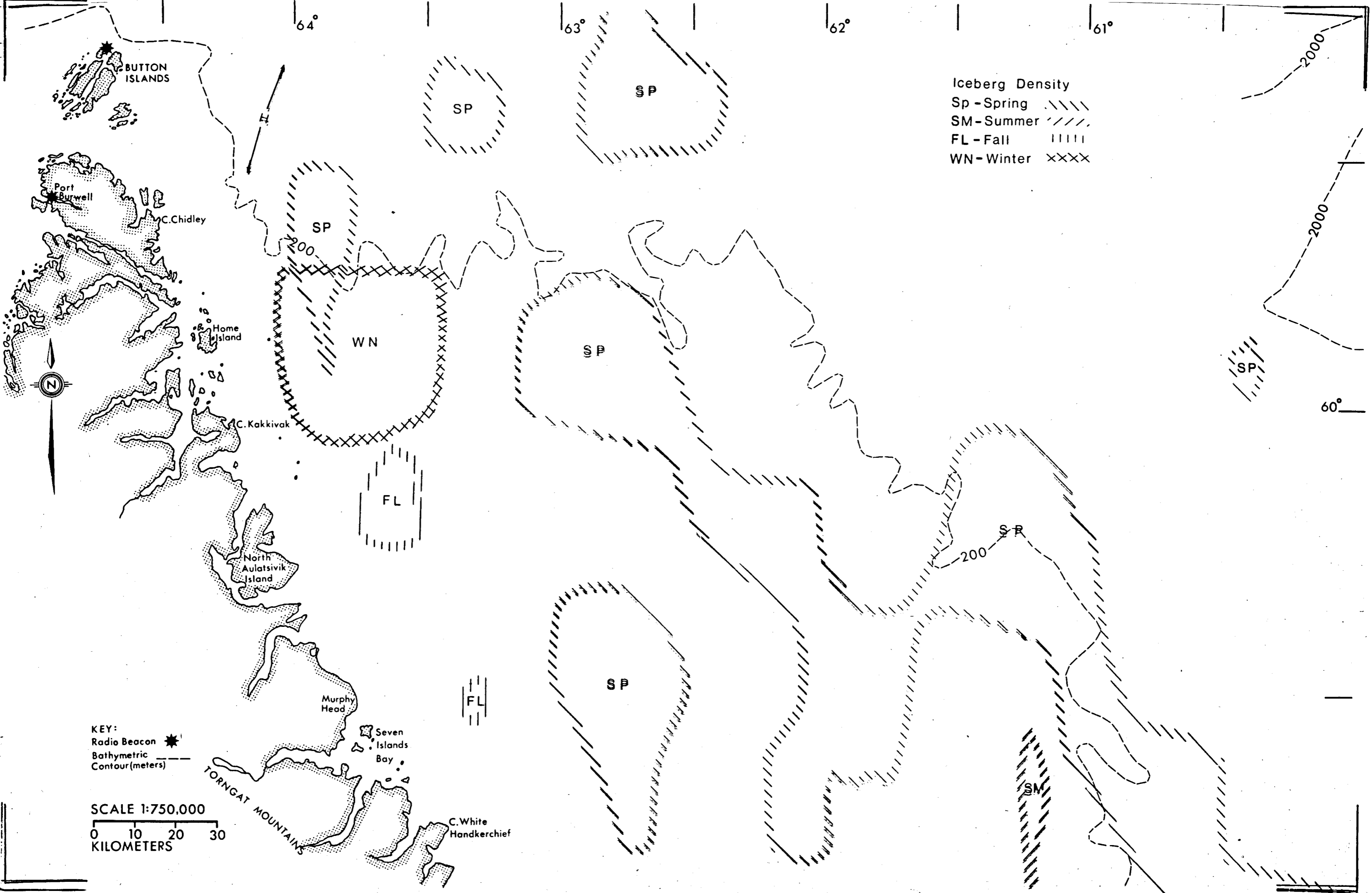
LABRADOR CURRENT - (OFFSHORE BRANCH)

Surface Current



KEY:  
Radio Beacon \*  
Bathymetric Contour (meters) - - -

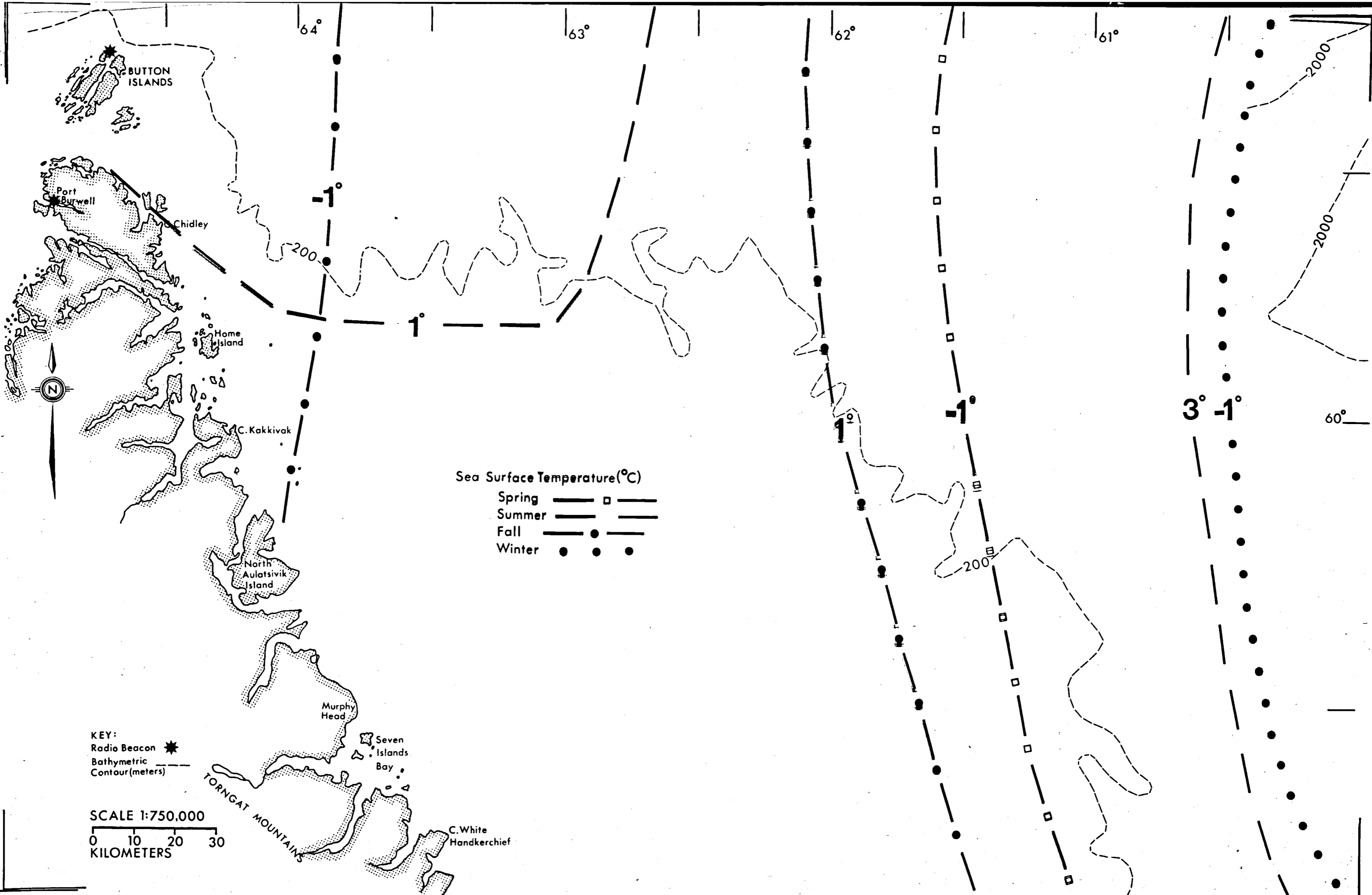
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0 10 20 30  
KILOMETERS

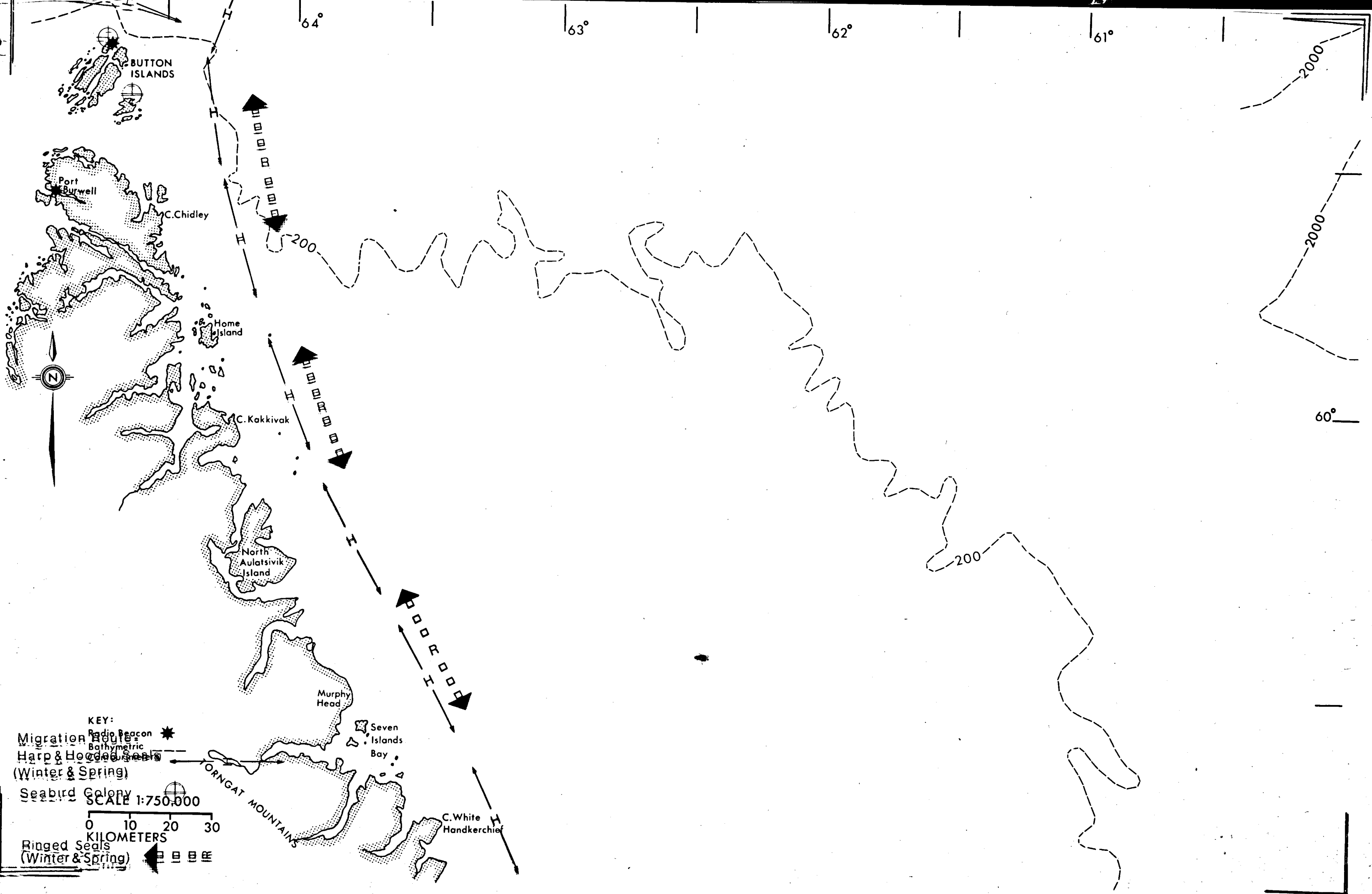


Iceberg Density  
 Sp - Spring    \\\生\\生  
 SM - Summer   \\\生\\生  
 FL - Fall       | | | | | |  
 WN - Winter    x x x x

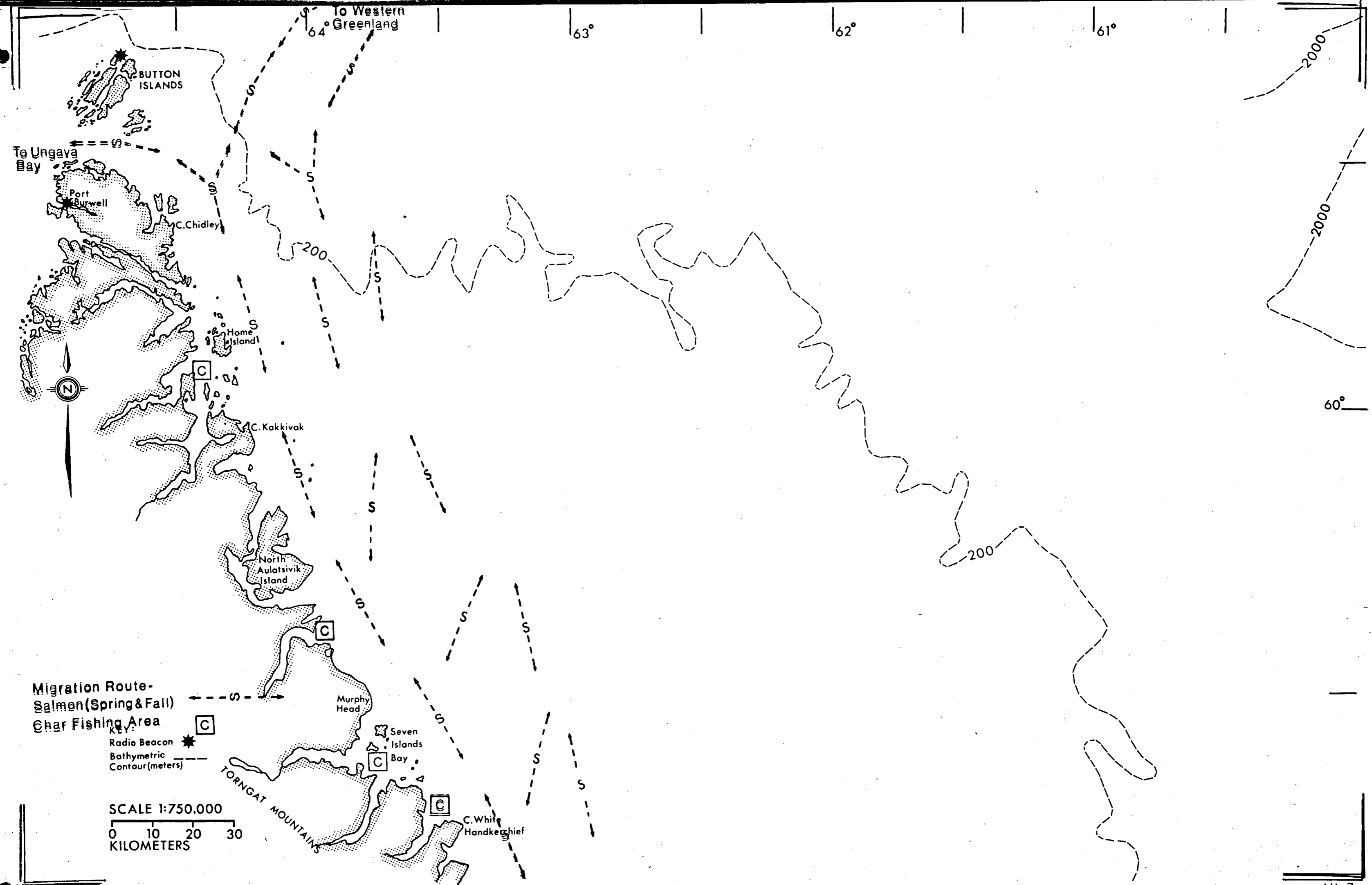
KEY:  
 Radio Beacon    \*  
 Bathymetric Contour (meters)    - - - -

SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS





KEY:  
 Migration Route \*  
 Radio Beacon  
 Bathymetric  
 Harp & Hooded Seals  
 (Winter & Spring)  
 Seabird Colony  
 SCALE 1:750,000  
 0 10 20 30  
 KILOMETERS  
 Ringed Seals  
 (Winter & Spring)



To Western Greenland  
64°

63°

62°

61°

2000

2000

To Ungava Bay

BUTTON ISLANDS

Port Burwell  
C. Chidley

Home Island

C. Kakkivak

North Aulatsvik Island

Murphy Head

Seven Islands Bay

C. White Handkerchief

TORNGAT MOUNTAINS

60°

200

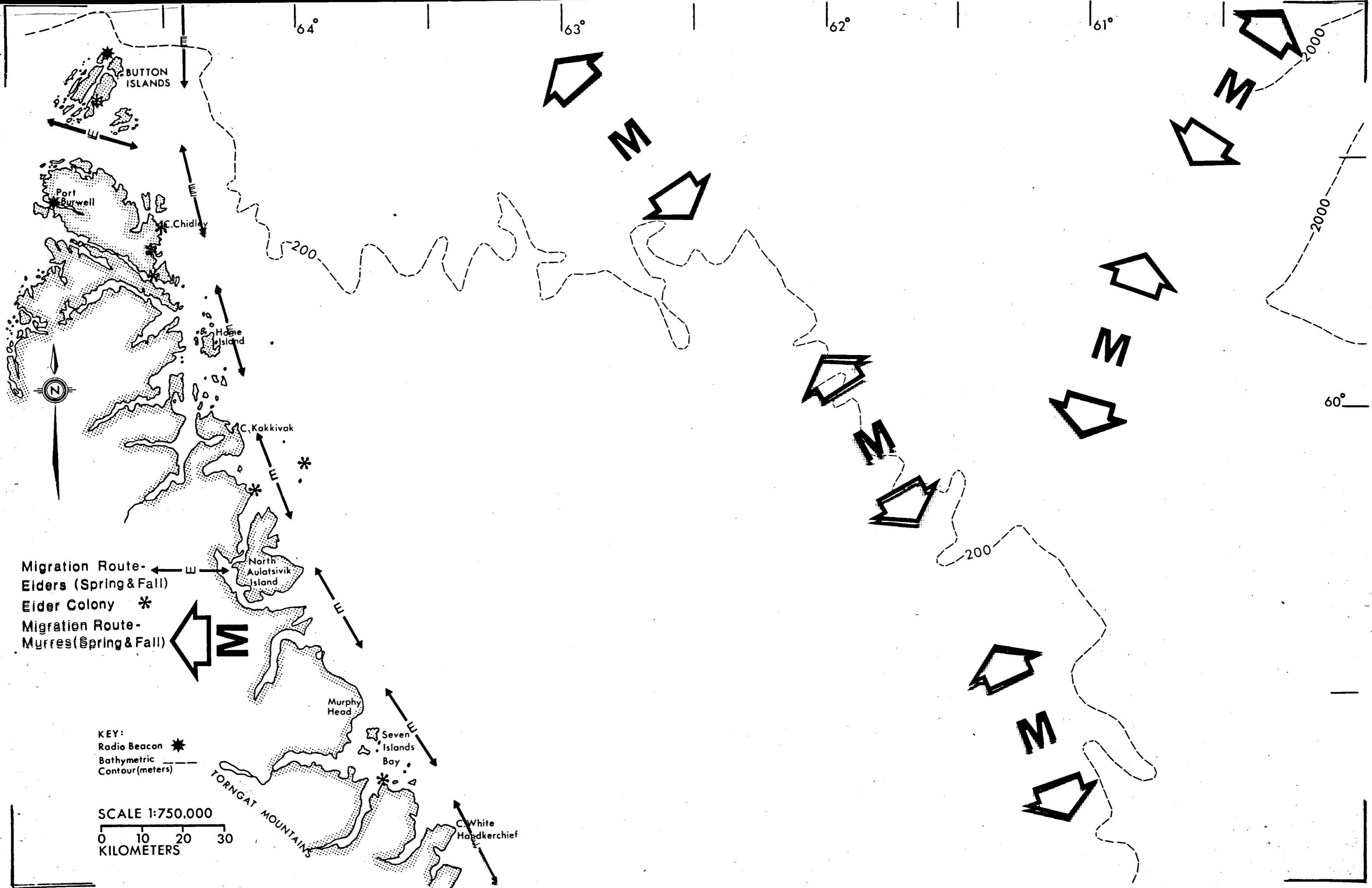
Migration Route -  
Salmon (Spring & Fall)  
Char Fishing Area

KEY:  
Radio Beacon \*  
Bathymetric Contour (meters) ---

SCALE 1:750,000

0 10 20 30  
KILOMETERS

V1197

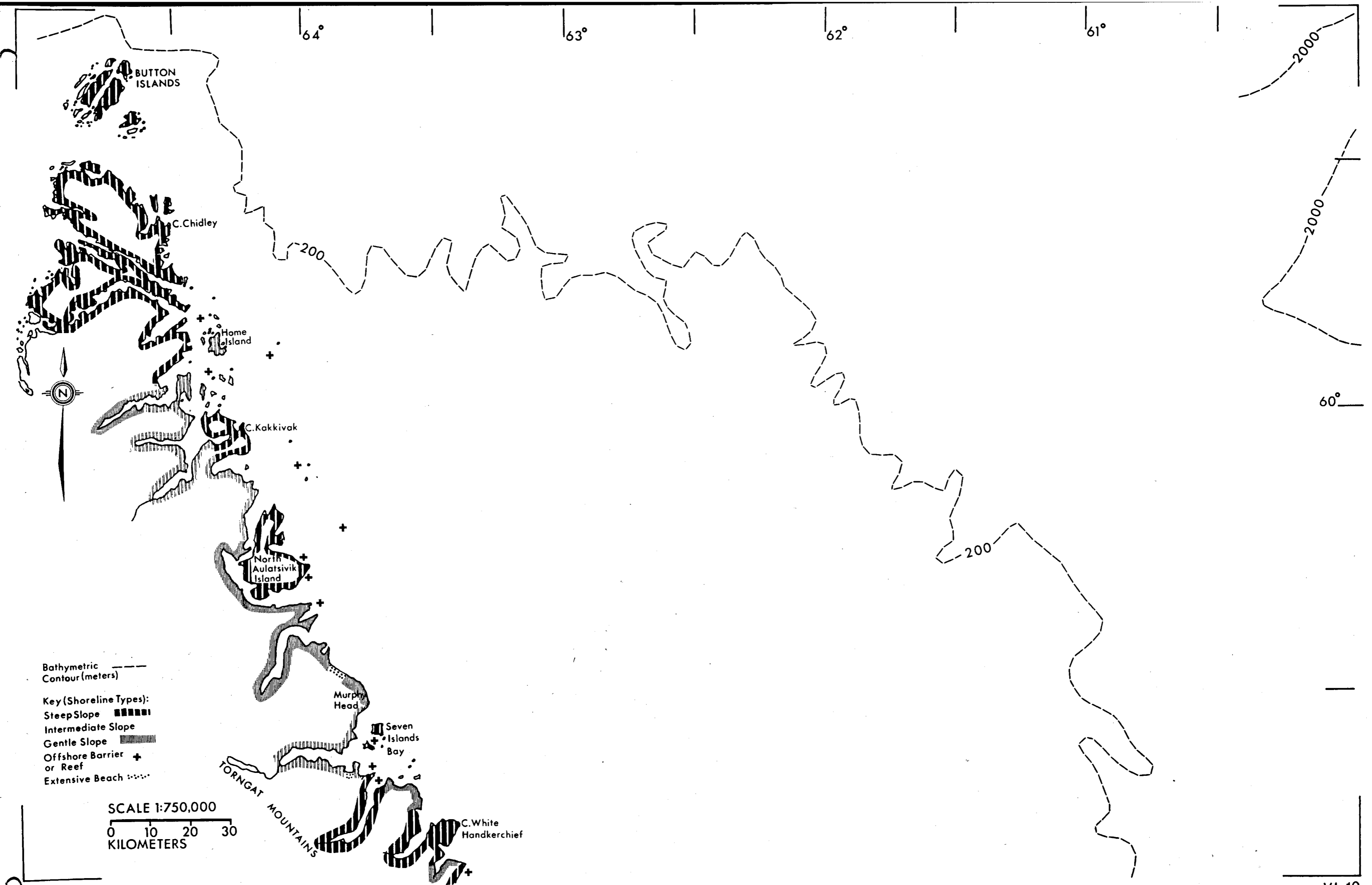


Migration Route-  
Eiders (Spring & Fall)  
Eider Colony \*

Migration Route-  
Murres (Spring & Fall)

KEY:  
Radio Beacon \*  
Bathymetric Contour (meters)

SCALE 1:750,000  
0 10 20 30  
KILOMETERS



APPENDIX

MONTHLY WIND DATA FOR COASTAL LABRADOR

A. Hopedale - Period - 1963-72

	Percentage Frequency												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
N	8	7	16	18	25	19	24	19	13	8	12	10	15
NE	3	2	5	8	9	9	11	9	6	5	4	3	6
E	3	5	3	4	5	7	7	10	4	5	5	4	5
SE	2	4	2	4	6	10	9	8	6	5	4	2	5
S	14	13	9	7	8	9	10	11	12	11	12	11	11
SW	29	27	14	11	12	13	10	13	13	27	24	32	20
W	17	17	13	12	11	11	12	9	8	24	21	24	15
NW	16	15	27	25	16	15	12	13	10	11	14	10	15
Calm	8	10	11	11	8	7	9	8	6	4	4	4	8

B. OSV Bravo - Period - 1952-72  
(56.5 N 51.0 W)

	Percentage Frequency												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
N	12	12	15	18	13	10	8	8	11	11	11	12	12
NE	11	7	13	13	11	10	7	8	6	6	8	7	9
E	11	9	13	12	13	13	11	12	5	5	8	9	10
SE	6	10	7	7	12	12	15	15	8	7	8	7	10
S	7	9	8	10	12	14	20	16	14	11	12	9	12
SW	12	13	9	10	10	11	12	12	14	12	14	14	12
W	21	19	13	13	11	13	13	13	19	21	20	20	16
NW	19	19	21	18	17	16	11	15	22	25	19	22	19
Calm	1	1	1	1	2	2	3	2	1	1	1	1	1

VISIBILITY FOR COASTAL LABRADOR

A. Hopedale

	Percentage Frequency												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
0-1 (KM)	5.1	4.9	5.9	5.1	2.6	2.4	2.2	2.3	0.6	1.3	2.2	3.9	3.1
0-9.3(KM)	16.5	14.4	16.9	14.6	12.0	10.6	10.5	10.2	5.6	8.3	13.2	14.7	12.3

B. OSV Bravo (56.5 N 51.0 W)

	Percentage Frequency												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
0-1 (KM)	6.6	5.6	9.8	8.9	9.2	11.7	5.1	9.7	6.2	3.9	3.5	4.5	7.1
0-9.3(KM)	23.3	27.3	22.2	22.4	20.4	18.8	11.1	14.8	9.6	9.6	10.3	15.5	17.1

TIDAL RANGE - COASTAL LABRADOR

	<u>MEAN TIDE (M)</u>	<u>LARGE TIDE (M)</u>
Battle Harbour	0.9	1.5
Port Hope Simpson	1.1	1.6
Cartwright	1.3	2.0
Makkovik	1.4	2.2
Hopedale	1.5	2.3
Davis Inlet	1.6	2.5
Nain	1.7	2.8
Hebron	1.5	2.2
Williams Harbour	2.4	3.7
Port Burwell (Ungava Bay)	4.6	7.3

FISH PROCESSING PLANTS - LABRADOR

NAME AND ADDRESS	TYPE OF PROCESSING
1. F.U.T. Co. Ltd. Blanc Sablon	Cured
2. M.M. Organ Ltd. Lanse au Clair	Cured
3. F.U.T. Co. Ltd. Lanse au Clair	Cured
4. Red Bay Stores Forteau	Cured
5. Red Bay Stores Lanse au Loup	Cured
6. F.U.T. Co. Ltd. Lanse au Loup	Cured
7. F.U.T. Co. Ltd. West St. Modeste	Cured
8. Red Bay Stores Red Bay	Cured
9. Bay Roberts Fisheries Fox Harbour	Cured
10. Bay Roberts Fisheries Snug Harbour	Cured
11. H.B. Dawe Ltd. Domino	Cured
12. Northern Labrador Services Division Makkovik	Fresh & Frozen
13. Northern Labrador Services Division Nain	Fresh & Frozen

MAIN PORTS - COASTAL LABRADOR

	DRAFT (ft.)
1 Cartwright	20
2 Makkovik	18
3 Postville	21
4 Hopedale	18
5 Nain	20

AIRSTRIPS - COASTAL LABRADOR & VICINITY

	MAXIMUM SIZE (ft.)
1 St. Anthony	3000 x 100 (paved)
2 Cartwright (under const.)	2500 x 75 (paved)
3 Makkovik (under const.)	2500 x 75 (gravel)
4 Nain (under const.)	2000 x 75 (gravel)
5 Saglek	4760 x 150 (paved)

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