# STANDARDIZATION OF CANADIAN EAST COAST STATISTICAL UNIT AREAS CAFSAC

RESEARCH DOCUMENT 78/32 (Revised)

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#### INTRODUCTION

Within the past two years the Statistics Section, Maritimes Region, has noticed that several inconsistencies exist in the accepted coordinates of Statistical Unit Areas. The original Statistical Areas were set up by the North American Council on Fishery Investigation 1943.

When I.C.N.A.F. set up their Subareas and Divisions, some of their boundaries did not coincide with those of the original Statistical Areas. At this time, the St. Andrew's Groundfish Investigation Committee apparently modified several Unit Areas' boundaries to coincide with those of the I.C.N.A.F. Divisions for Subarea 4.

As a result of a memorandum from R.G. Halliday to all Field Technicians dated September 3, 1969, a formal revision of unit areas was issued in order to eliminate the then present confusion concerning specific corrections in unit area boundaries for the Scotian Shelf and Georges Bank.

In 1976, inconsistencies were observed in the coordinates of the Gulf of St. Lawrence, Unit Areas between the Statistics Section and several Marine Fish Division technicians within the Maritime Region.

It was eventually understood that everyone involved would utilize one specific set of coordinates although no formal documentation was issued.

In 1977, the Statistics Branch, Newfoundland Region, had developed a set of charts which indicated unit areas for only Subareas 2, 3, and 4 but omitted Subarea 5. Also, several Unit Areas on these charts did not coincide with the coordinates for Unit Areas utilized by the Maritime Region, particularly in the Gulf of St. Lawrence and Scotian Shelf. Furthermore, in Subareas 4 and 5, the Maritime Region utilized a three-character alphanumeric code for identification of unit areas while the Newfoundland Region used an unrelated three-character numeric code.

Therefore, recognizing that two different systems of both codes and inconsistent coordinates existed, the Statistics Section, from both regions, agreed to develop and propose a uniform and acceptable singular system of Statistical Unit Areas.

#### RECOMMENDATIONS

As a result of the agreement reached between the two East Coast Fisheries Management Regions, it was understood that the Statistics Section, Halifax, would draft a revised set of statistical unit area coordinates and codes for the entire East Coast based upon the existing systems presently in use for subarea 4 and 5.

Therefore, a set of charts utilizing both the accepted Maritime coordinates and codes and also the coordinates of the Newfoundland Regions Statistical Unit Area was developed.

This new set of charts adopting an alphanumeric coding system was presented to the Statistical Survey and Sampling Subcommittee meeting in St.John's, Newfoundland, on August 7, 1978.

The purpose in presenting these charts at this meeting was to obtain critical comments and analysis from both the Newfoundland Statistics Branch and the members of the S.S.S.S.

The Newfoundland Statistics Branch agreed in principle to adopting from their existing numeric codes to the proposed alphanumeric system for the Statistical Unit Areas in Subareas 2, 3, 4, and 5.

Our rationale for proposing a uniform alphanumeric coding system similar to the existing system in subareas 4 and 5 exist in the relative ease of identification.

The alphanumeric system would utilize only three characters:

- 1. The first character would utilize a number which would represent and identify the ICNAF Subarea.
- The second character would utilize an alphabetic letter which would represent and identify the respective ICNAF division.
- 3. The third character would also utilize an alphabetic letter which would represent and identify the Statistical Unit Area within a specific division.

This particular alphanumeric system is proposed to be entered via our existing EDP systems for quick visual identification of catch location on catch and effort files.

We would also like to recommend that if this proposed system is adopted that a suitable marine chart indicating the major fishing banks be used.

It is intended that this new proposed system of uniform alphanumeric codes will help eliminate future confusion and ambiguities that presently exist with the interpretations of current Statistical Unit Areas.

#### SYNOPSIS

In reiteration of the previous comments, it was noted that several inconsistencies existed in the coordinates of Statistical Unit Areas between several fisheries operation centres within the Maritime Region. This mainly occurred in reference to the Gulf of St. Lawrence Statistical Unit Areas whereby no two individuals maintained charts with identical coordinates. Also, we were unable to locate any source documentation pertaining to the Area coordinates within the Gulf.

The proposed set of charts which the Newfoundland Region developed in 1977, created additional confusion in identifying Statistical Unit Areas. In this instance, several of their coordinates were inconsistent from the Maritime Region's coordinates. Also, the Newfoundland Region's system of coding utilized a numeric system while the Maritime Region used an alphanumeric identification system.

Therefore, we wish to recommend that this proposed system of standardization of coordinates and use of an alphanumeric identification code for the Statistical Unit Areas be adopted. It is expected that this system will eliminate the present state of confusion and misunderstanding.

If this proposal is adopted, it is our intention to implement this system for general distribution by January, 1979.

# <u>APPENDIX</u>

- Identification chart of proposed East Coast
   Alphanumeric Coded Statistical Unit Areas.
- 2. Coordinates of proposed Statistical Unit Areas.
- 3. Coordinates of existing ICNAF subareas and divisions.
- 4. Memorandum from R.G. Halliday to MFN Technicians.

#### DIVISION 2G

starts

 $57^{\circ}40'\text{N}/61^{\circ}40'\text{W}$  to  $57^{\circ}40'\text{N}/52^{\circ}05'\text{W}$  to  $61^{\circ}00'\text{N}/59^{\circ}00'\text{W}$  to  $61^{\circ}00'\text{N}/64^{\circ}30'\text{W}$  to  $60^{\circ}26'\text{N}/64^{\circ}30'\text{W}$  ENDAT

#### UNIT AREA 2GA

starts

 $59^{o}30'N/63^{o}45'W$  to  $59^{o}30'N/62^{o}00'W$  to  $60^{o}30'N/62^{o}00'W$  to  $60^{o}30'N/64^{o}30'W$  ENDAT

## UNIT AREA 2GB

starts

 $59^{\circ}30'\text{N}/62^{\circ}00'\text{W}$  to  $59^{\circ}30'\text{N}/60^{\circ}00'\text{W}$  to  $60^{\circ}30'\text{N}/62^{\circ}00'\text{W}$  to  $59^{\circ}30'\text{N}/62^{\circ}00'\text{W}$  to  $59^{\circ}30'\text{N}/62^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 2GC

starts

 $58^{\circ}30'$ N/ $62^{\circ}35'$ W to  $58^{\circ}30'$ N/ $61^{\circ}00'$ W to  $59^{\circ}30'$ N/ $63^{\circ}45'$ W ENDAT

#### UNIT AREA 2GD

starts

 $58^{\circ}30'\text{N}/61^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/59^{\circ}00'\text{W}$  to  $59^{\circ}30'\text{N}/61^{\circ}00'\text{W}$  to  $59^{\circ}30'\text{N}/61^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/61^{\circ}00'\text{W}$  ENDAT

#### UNIT AREA 2GE

starts

 $57^{0}40'N/61^{0}40'W$  to  $57^{0}40'N/61^{0}00'W$  to  $58^{0}30'N/61^{0}00'W$  to  $58^{0}30'N/62^{0}35'W$  ENDAT

#### UNIT AREA 2GF

starts

 $57^{\circ}40'\text{N}/61^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/59^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/59^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/61^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/61^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 2GP

starts

 $57^{\circ}40'\text{N}/59^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/57^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/57^{\circ}00'\text{W}$  to  $58^{\circ}30'\text{N}/59^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/59^{\circ}00'\text{W}$  ENDAT

Area 2GG is the remainder of Division 2G not included in the unit area description.

#### DIVISION 2H

starts

55<sup>o</sup>20'N/60<sup>o</sup>00'W to 55<sup>o</sup>20'N/47<sup>o</sup>35'W to 57<sup>o</sup>40'N/52<sup>o</sup>05'W to 57<sup>o</sup>40'N/61<sup>o</sup>40'W ENDAT

## UNIT AREA 2HA

starts

 $56^{\circ}30'\text{N}/61^{\circ}15'\text{W}$  to  $56^{\circ}30'\text{N}/60^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/60^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/61^{\circ}40'\text{W}$  ENDAT

## UNIT AREA 2HB

starts

 $56^{\circ}30'\text{N}/60^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/58^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/58^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/60^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/60^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 2HC

starts

 $56^{\circ}30'\text{N}/58^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/56^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{W}/56^{\circ}00'\text{W}$  to  $57^{\circ}40'\text{N}/58^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{W}/58^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 2HD

starts

 $55^{\circ}20'\text{N}/60^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/59^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/59^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/61^{\circ}15'\text{W}$  ENDAT

# UNIT AREA 2HE

starts

 $55^{\circ}20'\text{N}/59^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/57^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/57^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/59^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/59^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 2HF

starts

 $55^{\circ}20'\text{N}/57^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/55^{\circ}00'\text{W}$  to

 $56^{\circ}30'\text{N}/55^{\circ}00'\text{W}$  to  $56^{\circ}30'\text{N}/57^{\circ}00'\text{W}$  to

55<sup>0</sup>20'N/57<sup>0</sup>00'W ENDAT

Area 2HH is the remainder of Division 2H not included in the unit area description.

#### DIVISION 2J

starts

 $52^{0}15!N/55^{0}40!W$  to  $52^{0}15!N/42^{0}00!W$  to  $55^{0}20!N/47^{0}35!W$  to  $55^{0}20!N/60^{0}00!W$  ENDAT

#### UNIT AREA 2JA

starts

 $54^{\circ}30'\text{N}/57^{\circ}10'\text{W}$  to  $54^{\circ}30'\text{N}/56^{\circ}30'\text{W}$  to  $55^{\circ}20'\text{N}/59^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/60^{\circ}00'\text{W}$  ENDAT

#### UNIT AREA 2JB

starts

 $54^{\circ}30'\text{N}/56^{\circ}30'\text{W}$  to  $54^{\circ}30'\text{N}/55^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/55^{\circ}00'\text{W}$  to  $55^{\circ}20'\text{N}/59^{\circ}00'\text{W}$  to  $54^{\circ}30'\text{N}/56^{\circ}30'\text{W}$  ENDAT

## UNIT AREA 2JC

starts

 $54^{o}30'N/55^{o}00'W$  to  $54^{o}30'N/52^{o}00'W$  to  $55^{o}20'N/52^{o}00'W$  to  $55^{o}20'N/55^{o}00'W$  to  $54^{o}30'N/55^{o}00'W$  ENDAT

# UNIT AREA 2JD

starts

 $53^{o}42'N/56^{o}30'W$  to  $53^{o}35'N/55^{o}30'W$  to  $54^{o}30'N/56^{o}30'W$  to  $54^{o}30'N/57^{o}10'W$  ENDAT

## UNIT AREA 2JE

starts

 $53^{\circ}35'$ N/ $55^{\circ}30'$ W to  $53^{\circ}15'$ N/ $54^{\circ}00'$ W to  $54^{\circ}30'$ N/ $56^{\circ}30'$ W to  $53^{\circ}35'$ N/ $55^{\circ}30'$ W ENDAT

#### UNIT AREA 2JF

starts

 $53^{\circ}15'N/54^{\circ}00'W$  to  $53^{\circ}15'N/52^{\circ}00'W$  to  $54^{\circ}30'N/52^{\circ}00'W$  to  $54^{\circ}30'N/54^{\circ}00'W$  to  $53^{\circ}15'N/54^{\circ}00'W$  ENDAT

## UNIT AREA 2JG

starts

 $53^{0}15'N/52^{0}00'W$  to  $53^{0}15'N/50^{0}00'W$  to  $54^{0}30'N/50^{0}00'W$  to  $54^{0}30'N/52^{0}00'W$  to  $53^{0}15'N/52^{0}00'W$  ENDAT

## UNIT AREA 2JM

starts

 $52^{0}15'N/55^{0}40'W$  to  $52^{0}15'N/55^{0}30'W$  to  $53^{0}35'N/55^{0}30'W$  to  $53^{0}42'N/56^{0}30'W$  ENDAT

## UNIT AREA 2JI

starts

 $52^{\circ}15'N/55^{\circ}30'W$  to  $52^{\circ}15'N/54^{\circ}00'W$  to  $53^{\circ}15'N/54^{\circ}00'W$  to  $53^{\circ}35'N/55^{\circ}30'W$  to  $52^{\circ}15'N/55^{\circ}30'W$  ENDAT

# UNIT AREA 2JN

starts

 $52^{o}15'N/54^{o}00'W$  to  $52^{o}15'N/52^{o}00'W$  to  $53^{o}15'N/52^{o}00'W$  to  $53^{o}15'N/54^{o}00'W$  to  $52^{o}15'N/54^{o}00'W$  ENDAT

## UNIT AREA 2JL

starts

 $52^{o}15'N/52^{o}00'W$  to  $52^{o}15'N/50^{o}00'W$  to  $53^{o}15'N/52^{o}00'W$  to  $52^{o}15'N/52^{o}00'W$  to  $52^{o}15'N/52^{o}00'W$  ENDAT

Area 2JJ is the remainder of Division 2J not included in the unit area description.

#### DIVISION 3K

starts

 $49^{0}15'N/53^{0}28'W$  to  $49^{0}15'N/42^{0}00'W$  to  $52^{0}15'N/42^{0}00'W$  to  $52^{0}15'N/55^{0}25'W$  to  $51^{0}35'N/55^{0}25'W$  ENDAT

## UNIT AREA 3KA

starts

 $51^{o}23'N/55^{o}34'W$  to  $50^{o}20'N/54^{o}00'W$  to  $52^{o}15'N/54^{o}00'W$  to  $52^{o}15'N/55^{o}25'W$  to  $51^{o}35'N/55^{o}25'W$  ENDAT

## UNIT AREA 3KB

starts

 $51^{0}00'N/54^{0}00'W$  to  $51^{0}00'N/52^{0}00'W$  to  $52^{0}15'N/52^{0}00'W$  to  $52^{0}15'N/54^{0}00'W$  to  $51^{0}00'N/54^{0}00'W$  ENDAT

## UNIT AREA 3KC

starts

 $51^{0}00!$ N/ $52^{0}00!$ W to  $51^{0}00!$ N/ $49^{0}00!$ W to  $52^{0}15!$ N/ $49^{0}00!$ W to  $52^{0}15!$ N/ $52^{0}00!$ W to  $51^{0}00!$ N/ $52^{0}00!$ W ENDAT

## UNIT AREA 3KD

starts

 $50^{0}12$ 'N/ $56^{0}10$ 'W to  $50^{0}18$ 'N/ $56^{0}00$ 'W to  $50^{0}20$ 'N/ $54^{0}00$ 'W to  $51^{0}23$ 'N/ $55^{0}34$ 'W ENDAT

#### UNIT AREA 3KE

starts

 $50^{\circ}20'$ N/ $54^{\circ}00'$ W to  $50^{\circ}00'$ N/ $52^{\circ}30'$ W to  $51^{\circ}00'$ N/ $52^{\circ}30'$ W to  $51^{\circ}00'$ N/ $54^{\circ}00'$ W ENDAT

## UNIT AREA 3KF

starts

 $49^{\circ}15'N/52^{\circ}30'W$  to  $49^{\circ}15'N/51^{\circ}00'W$  to  $51^{\circ}00'N/51^{\circ}00'W$  to  $51^{\circ}00'N/52^{\circ}30'W$  to  $49^{\circ}15'N/52^{\circ}30'W$  ENDAT

#### UNIT AREA 3KG

starts

 $49^{0}15'N/51^{0}00'W$  to  $49^{0}15'N/48^{0}00'W$  to  $51^{0}00'N/48^{0}00'W$  to  $51^{0}00'N/51^{0}00'W$  to  $49^{0}15'N/51^{0}00'W$  ENDAT

## UNIT AREA 3KH

starts

 $49^{\circ}34'$ N/ $55^{\circ}20'$ W to  $50^{\circ}20'$ N/ $54^{\circ}00'$ W to  $50^{\circ}18'$ N/ $56^{\circ}00'$ W to  $50^{\circ}12'$ N/ $56^{\circ}10'$ W ENDAT

## UNIT AREA 3KI

starts

 $49^{\circ}15'N/53^{\circ}28'W$  to  $49^{\circ}15'N/52^{\circ}30'W$  to  $50^{\circ}00'N/52^{\circ}30'W$  to  $50^{\circ}20'N/54^{\circ}00'W$  to  $49^{\circ}34'N/55^{\circ}20'W$  ENDAT

Area 3KK is the remainder of Division 3K not included in the unit area description.

## DIVISION 3L

starts

 $46^{\circ}50$ 'N/ $54^{\circ}10$ 'W to  $46^{\circ}00$ 'N/ $54^{\circ}30$ 'W to  $46^{\circ}00$ 'N/ $46^{\circ}30$ 'W to  $49^{\circ}15$ 'N/ $53^{\circ}28$ 'W ENDAT

## UNIT AREA 3LA

starts

 $48^{\circ}40'\text{N}/53^{\circ}06'\text{W}$  to  $49^{\circ}15\text{N}/52^{\circ}30'\text{W}$  to  $49^{\circ}15'\text{N}/53^{\circ}28'\text{W}$  ENDAT

#### UNIT AREA 3LB

starts

 $48^{\circ}10'\text{N}/52^{\circ}55'\text{W}$  to  $48^{\circ}30'\text{N}/52^{\circ}30'\text{W}$  to  $49^{\circ}15'\text{N}/52^{\circ}30'\text{W}$  to  $48^{\circ}40'\text{N}/53^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 3LC

starts

 $48^{0}00'N/52^{0}30'W$  to  $48^{0}00'N/51^{0}00'W$  to  $49^{0}15'N/51^{0}00'W$  to  $49^{0}15'N/52^{0}30'W$  to  $48^{0}00'N/52^{0}30'W$  ENDAT

## UNIT AREA 3LD

starts

 $48^{0}00'N/51^{0}00'W$  to  $48^{0}00'N/49^{0}00'W$  to  $49^{0}15'N/49^{0}00'W$  to  $48^{0}00'N/51^{0}00'W$  ENDAT

## UNIT AREA 3LE

starts

 $48^{\circ}00'N/49^{\circ}00'W$  to  $48^{\circ}00'N/46^{\circ}30'W$  to  $49^{\circ}15'N/46^{\circ}30'W$  to  $49^{\circ}15'N/49^{\circ}00'W$  to  $48^{\circ}00'N/49^{\circ}00'W$  ENDAT

## UNIT AREA 3LF

starts  $47^{0}48^{1}N/52^{0}48^{1}W$  to  $47^{0}50^{1}N/52^{0}30^{1}W$  to  $48^{0}30^{1}N/52^{0}30^{1}W$  to  $48^{0}10^{1}N/52^{0}55^{1}W$  ENDAT

## UNIT AREA 3LG

starts  $47^{0}00'N/52^{0}30'W$  to  $47^{0}00'N/51^{0}00'W$  to  $48^{0}00'N/51^{0}00'W$  to  $48^{0}00'N/52^{0}30'W$  to  $47^{0}00'N/52^{0}30'W$  ENDAT

## UNIT AREA 3LH

starts  $47^{0}00'N/51^{0}00'W$  to  $47^{0}00'N/49^{0}00'W$  to  $48^{0}00'N/49^{0}00'W$  to  $48^{0}00'N/51^{0}00'W$  to  $47^{0}00'N/51^{0}00'W$  ENDAT

# UNIT AREA 3LI

starts  $47^{0}00'N/49^{0}00'W$  to  $47^{0}00'N/46^{0}30'W$  to  $48^{0}00'N/46^{0}30'W$  to  $48^{0}00'N/49^{0}00'W$  to  $47^{0}00'N/49^{0}00'W$  ENDAT

## UNIT AREA 3LJ

starts  $46^{\circ}39'\text{N}/53^{\circ}04'\text{W}$  to  $46^{\circ}30'\text{N}/52^{\circ}30'\text{W}$  to  $47^{\circ}50'\text{N}/52^{\circ}30'\text{W}$  to  $47^{\circ}48'\text{N}/52^{\circ}48'\text{W}$  ENDAT

## UNIT AREA 3LS

starts

 $46^{\circ}00'$ N/ $52^{\circ}30'$ W to  $46^{\circ}00'$ N/ $51^{\circ}00'$ W to  $47^{\circ}00'$ N/ $51^{\circ}00'$ W to  $47^{\circ}00'$ N/ $52^{\circ}30'$ W to  $46^{\circ}00'$ N/ $52^{\circ}30'$ W ENDAT

## UNIT AREA 3LR

starts

 $46^{0}00$ 'N/51 $^{0}00$ 'W to  $46^{0}00$ 'N/ $49^{0}00$ 'W to  $47^{0}00$ 'N/ $49^{0}00$ 'W to  $47^{0}00$ 'N/ $51^{0}00$ 'W to  $46^{0}00$ 'N/ $51^{0}00$ 'W ENDAT

#### UNIT AREA 3LT

starts

 $46^{\circ}00' \text{N}/49^{\circ}00' \text{W}$  to  $46^{\circ}00' \text{N}/46^{\circ}30' \text{W}$  to  $47^{\circ}00' \text{N}/46^{\circ}30' \text{W}$  to  $47^{\circ}00' \text{N}/49^{\circ}00' \text{W}$  to  $46^{\circ}00' \text{N}/49^{\circ}00' \text{W}$  ENDAT

#### UNIT AREA 3LQ

starts

 $46^{o}50$ 'N/ $54^{o}10$ 'W to  $46^{o}00$ 'N/ $54^{o}30$ 'W to  $46^{o}00$ 'N/ $52^{o}30$ 'W to  $46^{o}39$ 'N/ $53^{o}04$ 'W ENDAT

#### DIVISION 3M

starts

 $49^{\circ}15'N/46^{\circ}30'W$  to  $39^{\circ}00'N/46^{\circ}30'W$  to  $39^{\circ}00'N/42^{\circ}00'W$  to  $49^{\circ}15'N/42^{\circ}00'W$  to  $49^{\circ}15'N/46^{\circ}30'W$  ENDAT

#### UNIT AREA 3MA

starts

 $47^{0}00'N/46^{0}30'W$  to  $47^{0}00'N/45^{0}00'W$  to  $49^{0}15'N/45^{0}00'W$  to  $49^{0}15'N/46^{0}30'W$  to  $47^{0}00'N/46^{0}30'W$  ENDAT

#### UNIT AREA 3MB

starts

 $47^{0}00$ 'N/ $45^{0}00$ 'W to  $47^{0}00$ 'N/ $42^{0}00$ 'W to  $49^{0}15$ 'N/ $42^{0}00$ 'W to  $47^{0}00$ 'N/ $45^{0}00$ 'W ENDAT

#### UNIT AREA 3MC

starts

 $45^{\rm O}00'{\rm N}/46^{\rm O}30'{\rm W}$  to  $45^{\rm O}00'{\rm N}/45^{\rm O}00'{\rm W}$  to  $47^{\rm O}00'{\rm N}/46^{\rm O}30'{\rm W}$  to  $47^{\rm O}00'{\rm N}/46^{\rm O}30'{\rm W}$  to  $45^{\rm O}00'{\rm N}/46^{\rm O}30'{\rm W}$  ENDAT

#### UNIT AREA 3MD

starts

 $45^{0}00'N/45^{0}00'W$  to  $45^{0}00'N/42^{0}00'W$  to  $47^{0}00'N/42^{0}00'W$  to  $47^{0}00'N/45^{0}00'W$  to  $45^{0}00'N/45^{0}00'W$  ENDAT

Area 3MM is the remainder of Division 3M not included in the unit area description.

#### DIVISION 3N

starts

 $40^{0}03$ 'N/51 $^{0}00$ 'W to  $39^{0}00$ 'N/50 $^{0}00$ 'W to  $39^{0}00$ 'N/46 $^{0}03$ 'N/51 $^{0}00$ 'W to  $40^{0}03$ 'N/51 $^{0}00$ 'W ENDAT

#### UNIT AREA 3NA

starts

 $45^{0}00'N/51^{0}00'W$  to  $45^{0}00'N/49^{0}00'W$  to  $46^{0}00'N/51^{0}00'W$  to  $45^{0}00'N/51^{0}00'W$  to  $45^{0}00'N/51^{0}00'W$  ENDAT

#### UNIT AREA 3NB

starts

 $45^{0}00'N/49^{0}00'W$  to  $45^{0}00'N/46^{0}30'W$  to  $46^{0}00'N/46^{0}30'W$  to  $46^{0}00'N/49^{0}00'W$  to  $45^{0}00'N/49^{0}00'W$  ENDAT

#### UNIT AREA 3NC

starts

 $43^{\circ}30'$ N/ $51^{\circ}00'$ W to  $43^{\circ}30'$ N/ $49^{\circ}30'$ W to  $45^{\circ}00'$ N/ $49^{\circ}30'$ W to  $45^{\circ}00'$ N/ $51^{\circ}00'$ W to  $43^{\circ}30'$ N/ $51^{\circ}00'$ W ENDAT

#### UNIT AREA 3ND

starts

 $43^{0}30'N/49^{0}30'W$  to  $43^{0}30'N/46^{0}30'W$  to  $45^{0}00'N/49^{0}30'W$  to  $43^{0}30'N/49^{0}30'W$  ENDAT

#### UNIT AREA 3NE

starts

 $42^{\circ}00'$ N/51 $^{\circ}00'$ W to  $42^{\circ}00'$ N/50 $^{\circ}00'$ W to

 $43^{\circ}30'N/50^{\circ}00'W$  to  $43^{\circ}30'N/51^{\circ}00'W$  to

42°00'N/51°00'W ENDAT

#### UNIT AREA 3NF

starts

 $42^{0}00'N/50^{0}00'W$  to  $42^{0}00'N/46^{0}30'W$  to

 $43^{\circ}30'N/46^{\circ}30'W$  to  $43^{\circ}30'N/50^{\circ}00'W$  to

42<sup>0</sup>00'N/50<sup>0</sup>00'W ENDAT

Area 3NN is the remainder of Division 3N not included in the unit area description.

#### DIVISION 30

starts

 $43^{\circ}11'N/54^{\circ}30'W$  to  $40^{\circ}03'N/51^{\circ}00'W$  to  $46^{\circ}00'N/51^{\circ}00'W$  to  $46^{\circ}00'N/54^{\circ}30'W$  to  $43^{\circ}11'N/54^{\circ}30'N$  ENDAT

## UNIT AREA 30A

starts

 $45^{0}00$ 'N/ $54^{0}30$ 'W to  $45^{0}00$ 'N/ $53^{0}00$ 'W to  $46^{0}00$ 'N/ $53^{0}00$ 'W to  $46^{0}00$ 'N/ $54^{0}30$ 'W to  $45^{0}00$ 'N/ $54^{0}30$ 'W ENDAT

#### UNIT AREA 30B

starts

 $45^{0}00'N/53^{0}00'W$  to  $45^{0}00'N/51^{0}00'W$  to  $46^{0}00'N/53^{0}00'W$  to  $45^{0}00'N/53^{0}00'W$  ENDAT

#### UNIT AREA 30C

starts

 $43^{0}$ 11'N/ $54^{0}$ 30'W to  $41^{0}$ 54'N/ $53^{0}$ 00'W to  $45^{0}$ 00'N/ $53^{0}$ 00'W to  $45^{0}$ 00'N/ $54^{0}$ 30'W to  $43^{0}$ 11'N/ $54^{0}$ 30'W ENDAT

#### UNIT AREA 30D

starts

 $44^{0}00$ 'N/53 $^{0}00$ 'W to  $44^{0}00$ 'N/51 $^{0}00$ 'W to  $45^{0}00$ 'N/51 $^{0}00$ 'W to  $45^{0}00$ 'N/53 $^{0}00$ 'W to  $44^{0}00$ 'N/53 $^{0}00$ 'W ENDAT

#### UNIT AREA 30E

starts

 $42^{0}00'$ N/ $53^{0}00'$ W to  $42^{0}00'$ N/ $51^{0}00'$ W to  $44^{0}00'$ N/ $51^{0}00'$ W to  $44^{0}00'$ N/ $53^{0}00'$ W to  $42^{0}00'$ N/ $53^{0}00'$ W ENDAT

#### UNIT AREA 30F

starts

 $40^{\circ}03'N/51^{\circ}00'W$  to  $42^{\circ}00'N/51^{\circ}00'W$  to  $42^{\circ}00'N/53^{\circ}00'W$  to  $41^{\circ}54'N/53^{\circ}00'W$  to  $40^{\circ}03'N/51^{\circ}00'W$  ENDAT

#### DIVISION 3P

starts

 $47^{0}43N/59^{0}18'W$  to  $47^{0}30'N/59^{0}35'W$  to  $43^{0}11'N/54^{0}30'W$  to  $46^{0}00'N/54^{0}30'W$  to  $46^{0}50'N/54^{0}10'W$  ENDAT

## UNIT AREA 3PN

starts

 $47^{0}43'N/59^{0}18'W$  to  $47^{0}30'N/59^{0}35'W$  to  $46^{0}53'N/58^{0}45'W$  to  $47^{0}39'N/57^{0}30'W$  ENDAT

#### UNIT AREA 3PA

starts

 $47^{0}39'N/57^{0}30'W$  to  $47^{0}00'N/58^{0}30'W$  to  $47^{0}00'N/57^{0}00'W$  to  $47^{0}30'N/56^{0}11'W$  ENDAT

## UNIT AREA 3PB

starts

 $47^{\circ}30'$ N/ $56^{\circ}11'$ W to  $47^{\circ}00'$ N/ $57^{\circ}00'$ W to  $46^{\circ}30'$ N/ $56^{\circ}00'$ W to  $46^{\circ}58'$ N/ $56^{\circ}00'$ W ENDAT

## UNIT AREA 3PC

starts

 $46^{\circ}58'$ N/ $56^{\circ}00'$ W to  $46^{\circ}30'$ N/ $56^{\circ}00'$ W to  $46^{\circ}30'$ N/ $54^{\circ}10'$ W ENDAT

# UNIT AREA 3PD

starts

 $46^{\circ}53' \text{N}/58^{\circ}45' \text{W}$  to  $46^{\circ}00' \text{N}/57^{\circ}45' \text{W}$  to  $46^{\circ}00' \text{N}/57^{\circ}00' \text{W}$  to  $47^{\circ}00' \text{N}/57^{\circ}00' \text{W}$  to  $47^{\circ}00' \text{N}/58^{\circ}30' \text{W}$  to  $46^{\circ}53' \text{N}/58^{\circ}45' \text{W}$  ENDAT

#### UNIT AREA 3PE

starts

 $46^{\circ}00' \text{N}/57^{\circ}00' \text{W}$  to  $46^{\circ}00' \text{N}/56^{\circ}00' \text{W}$  to  $46^{\circ}30' \text{N}/56^{\circ}00' \text{W}$  to  $47^{\circ}00' \text{N}/57^{\circ}00' \text{W}$  to  $46^{\circ}00' \text{N}/57^{\circ}00' \text{W}$  ENDAT

## UNIT AREA 3PF

starts

 $45^{\circ}30'$ N/ $56^{\circ}00'$ W to  $45^{\circ}30'$ N/ $54^{\circ}30'$ W to  $46^{\circ}00'$ N/ $54^{\circ}30'$ W to  $46^{\circ}30'$ N/ $56^{\circ}00'$ W to  $45^{\circ}30'$ N/ $56^{\circ}00'$ W ENDAT

#### UNIT AREA 3PG

starts

 $46^{0}00'N/57^{0}45'W$  to  $44^{0}30'N/56^{0}00'W$  to  $46^{0}00'N/57^{0}45'W$  ENDAT

#### UNIT AREA 3PH

starts

 $44^{\circ}30'$  N/56 $^{\circ}00'$  W to  $43^{\circ}11'$  N/54 $^{\circ}30'$  W to  $45^{\circ}30'$  N/56 $^{\circ}00'$  W to  $44^{\circ}30'$  N/56 $^{\circ}00'$  W ENDAT

#### DIVISION 4V

starts

 $45^{\circ}40'\text{N}/60^{\circ}15'\text{W}$  to  $45^{\circ}40'\text{N}/60^{\circ}00'\text{W}$  to  $44^{\circ}10'\text{N}/59^{\circ}00'\text{W}$  to  $39^{\circ}00'\text{N}/59^{\circ}00'\text{W}$  to  $39^{\circ}00'\text{N}/50^{\circ}00'\text{W}$  to  $47^{\circ}50'\text{N}/60^{\circ}00'\text{W}$  to  $47^{\circ}04'\text{N}/60^{\circ}22'\text{W}$  ENDAT

## UNIT AREA 4VA

starts

 $45^{\circ}40'$ N/ $60^{\circ}15'$ W to  $45^{\circ}40'$ N/ $57^{\circ}22'$ W to  $47^{\circ}50'$ N/ $60^{\circ}00'$ W to  $47^{\circ}04'$ N/ $60^{\circ}22'$ W ENDAT

#### UNIT AREA 4VB

starts

 $45^{\circ}00' \text{N}/60^{\circ}00' \text{W}$  to  $45^{\circ}00' \text{N}/58^{\circ}20' \text{W}$  to  $45^{\circ}10' \text{N}/57^{\circ}22' \text{W}$  to  $45^{\circ}40' \text{N}/57^{\circ}22'$  to  $45^{\circ}40' \text{N}/60^{\circ}00' \text{W}$  to  $45^{\circ}00' \text{N}/60^{\circ}00' \text{W}$  ENDAT

#### UNIT AREA 4VC

starts

 $44^{\circ}10'\text{N}/60^{\circ}00'\text{W}$  to  $44^{\circ}10'\text{N}/59^{\circ}00'\text{W}$  to  $43^{\circ}48'\text{N}/55^{\circ}15'\text{W}$  to  $45^{\circ}10'\text{N}/56^{\circ}47'\text{W}$  to  $45^{\circ}10'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/58^{\circ}20'\text{W}$  to  $45^{\circ}00'\text{N}/59^{\circ}00'\text{W}$  ENDAT

#### UNIT AREA 4VE

starts

 $42^{0}00$ 'N/ $59^{0}00$ 'W to  $42^{0}00$ 'N/ $53^{0}10$ 'W to  $43^{0}48$ 'N/ $55^{0}15$ 'W to  $43^{0}48$ 'N/ $59^{0}00$ 'W to  $42^{0}00$ 'N/ $59^{0}00$ 'W ENDAT

Area 4VV is the remainder of Division 4V not included in the unit area description.

## DIVISION 4R

starts

 $51^{o}25'N/57^{o}06'W$  to  $49^{o}25'N/60^{o}00'W$  to  $47^{o}50'N/60^{o}00'W$  to  $47^{o}50'N/59^{o}35'W$  to  $47^{o}43'N/59^{o}18'W$  (southern and western boundaries)  $51^{o}39'N/55^{o}25'W$  to  $52^{o}15'N/55^{o}25'W$  to  $52^{o}15'N/55^{o}41'W$  (northern boundary)

## UNIT AREA 4RA

starts

 $52^{o}15'N/55^{o}41'W$  to  $52^{o}15'N/55^{o}25'W$  to  $51^{o}39'N/55^{o}25'W$  (northern boundary)  $51^{o}25'N/57^{o}06'W$  to  $50^{o}43'N/58^{o}09'W$  to  $50^{o}43'N/57^{o}24'W$  (southern boundary)

## UNIT AREA 4RB

starts

 $50^{\circ}43'\text{N}/57^{\circ}24'\text{W}$  to  $50^{\circ}43'\text{N}/58^{\circ}09'\text{W}$  to  $49^{\circ}57'\text{N}/59^{\circ}15'\text{W}$  to  $49^{\circ}15'\text{N}/58^{\circ}15'\text{W}$  to ENDAT

# UNIT AREA 4RC

starts

 $49^{o}15'N/58^{o}15'W$  to  $49^{o}57'N/59^{o}15'W$  to  $49^{o}25'N/60^{o}00'W$  to  $48^{o}30'N/60^{o}00'W$  to  $48^{o}30'N/59^{o}17'W$  ENDAT

# UNIT AREA 4RD

starts

 $48^{\circ}30' \text{N}/59^{\circ}17' \text{W}$  to  $48^{\circ}30' \text{N}/60^{\circ}00' \text{W}$  to  $47^{\circ}50' \text{N}/60^{\circ}00' \text{W}$  to  $47^{\circ}30' \text{N}/59^{\circ}35' \text{W}$  to  $47^{\circ}43' \text{N}/59^{\circ}18' \text{W}$  ENDAT

## DIVISION 4S

starts

 $49^{\circ}20' \text{N}/67^{\circ}24' \text{W}$  to  $49^{\circ}30' \text{N}/64^{\circ}40' \text{W}$  to  $47^{\circ}50' \text{N}/60^{\circ}00' \text{W}$  to  $49^{\circ}25' \text{N}/60^{\circ}00' \text{W}$  to  $51^{\circ}25' \text{N}/57^{\circ}06' \text{W}$  ENDAT

## UNIT AREA 4SZ

starts

 $49^{\circ}20'\text{N}/67^{\circ}24'\text{W}$  to  $49^{\circ}27'\text{N}/65^{\circ}50'\text{W}$  to  $50^{\circ}15'\text{N}/65^{\circ}50'\text{W}$  ENDAT

## UNIT AREA 4SI

starts

 $49^{\circ}45'N/64^{\circ}15'W$  to  $49^{\circ}30'N/64^{\circ}40'W$  to  $49^{\circ}27'N/65^{\circ}50'W$  to  $50^{\circ}02'N/65^{\circ}50'W$  to  $50^{\circ}02'N/64^{\circ}00'W$  ENDAT

# UNIT AREA 4SY

starts

 $50^{\rm o}15'{\rm N}/65^{\rm o}50'{\rm W}$  to  $50^{\rm o}02'{\rm N}/65^{\rm o}50'{\rm W}$  to  $50^{\rm o}02'{\rm N}/62^{\rm o}55'{\rm W}$  to  $49^{\rm o}40'{\rm W}/61^{\rm o}10'{\rm W}$  to  $50^{\rm o}11'{\rm N}/61^{\rm o}10'{\rm W}$  ENDAT

# UNIT AREA 4SV

starts

 $50^{\circ}11'N/61^{\circ}10'W$  to  $49^{\circ}40'N/61^{\circ}10'W$  to  $49^{\circ}25'N/60^{\circ}00'W$  to  $50^{\circ}43'N/58^{\circ}09'W$  to  $50^{\circ}44'N/59^{\circ}00'W$  ENDAT

## UNIT AREA 4SW

starts

 $50^{\circ}44'\text{N}/59^{\circ}00'\text{W}$  to  $50^{\circ}43'\text{N}/58^{\circ}09'\text{W}$  to  $51^{\circ}25'\text{N}/57^{\circ}06'\text{W}$  ENDAT

## UNIT AREA 4SS

starts

 $49^{\circ}45'N/64^{\circ}15'W$  to  $49^{\circ}30'N/64^{\circ}40'W$  to  $47^{\circ}50'N/60^{\circ}00'W$  to  $49^{\circ}05'N/61^{\circ}42'W$  ENDAT

## UNIT AREA 4SX

starts

 $49^{\circ}05'N/61^{\circ}42'W$  to  $49^{\circ}00'N/60^{\circ}00'W$  to  $49^{\circ}25'N/60^{\circ}00'W$  to  $50^{\circ}02'N/62^{\circ}55'W$  to  $50^{\circ}02'N/64^{\circ}00'W$  to  $49^{\circ}55'N/64^{\circ}00'W$  ENDAT

#### DIVISION 4T

starts

 $49^{\circ}20'\text{N}/67^{\circ}24'\text{W}$  to  $49^{\circ}30'\text{N}/64^{\circ}40'\text{W}$  to  $47^{\circ}50'\text{N}/60^{\circ}00'\text{W}$  to  $47^{\circ}04'\text{N}/60^{\circ}22'\text{W}$  ENDAT

## UNIT AREA 4TF

starts

 $47^{\circ}04'N/60^{\circ}22'W$  to  $47^{\circ}50'N/60^{\circ}00'W$  to  $48^{\circ}48'N/62^{\circ}30'W$  to  $46^{\circ}50'N/62^{\circ}30'W$  to  $47^{\circ}04'N/60^{\circ}35'W$  ENDAT

## UNIT AREA 4TG

starts

 $46^{0}20$ 'N/ $62^{0}55$ 'W to  $46^{0}50$ 'N/ $62^{0}30$ 'W to  $47^{0}04$ 'N/ $60^{0}35$ 'W (northern boundary)  $46^{0}00$ 'N/ $62^{0}30$ 'W to  $45^{0}50$ 'N/ $62^{0}02$ 'W (southern boundary)

## UNIT AREA 4TH

starts

 $46^{0}00$ 'N/ $62^{0}30$ 'W to  $45^{0}50$ 'N/ $62^{0}02$ 'W (eastern boundary)  $46^{0}35$ 'N/ $64^{0}44$ 'W to  $46^{0}35$ 'N/ $64^{0}08$ 'W (western boundary)

# UNIT AREA 4TJ

starts

 $46^{\circ}20' \text{N}/62^{\circ}55' \text{W}$  to  $46^{\circ}50' \text{N}/62^{\circ}30' \text{W}$  to  $47^{\circ}00' \text{N}/62^{\circ}30' \text{W}$  to  $47^{\circ}00' \text{N}/63^{\circ}45' \text{W}$  to  $46^{\circ}40' \text{N}/63^{\circ}55' \text{W}$  ENDAT

# UNIT AREA 4TK

starts

 $47^{0}00'N/63^{0}45'Wto 47^{0}00'N/62^{0}30'W to$   $48^{0}48'N/62^{0}30'W to 49^{0}15'N/63^{0}45'W to$   $47^{0}00'N/63^{0}45'W ENDAT$ 

#### UNIT AREA 4TL

starts

 $47^{\circ}35'N/64^{\circ}50'W$  to  $47^{\circ}35'N/63^{\circ}45'W$  to

 $47^{0}00'N/63^{0}45'W$  to  $46^{0}40'N/63^{0}55'W$  (northern boundary and

eastern boundary)

 $46^{\circ}35'N/64^{\circ}44'W$  to  $46^{\circ}35'N/64^{\circ}08'W$  (southern boundary)

## UNIT AREA 4TN

starts

 $47^{\circ}35'N/64^{\circ}50'W$  to  $47^{\circ}35'N/63^{\circ}45'W$  to

 $49^{0}15'N/63^{0}45'W$  to  $48^{0}45'N/64^{0}12'W$  (northern, eastern &

southern boundary)

 $48^{0}13'N/64^{0}50'W$  to  $47^{0}48'N/64^{0}50'W$  (western boundary)

## UNIT AREA 4TM

The Baie Des Chaleurs west of:

 $48^{0}13'N/64^{0}50'W$  to  $47^{0}48'N/64^{0}50'W$ 

#### UNIT AREA 4TO

starts

 $48^{\circ}47'N/64^{\circ}12'W$  to  $49^{\circ}15'N/63^{\circ}45'W$  to

 $49^{\circ}30'N/64^{\circ}40'W$  to  $49^{\circ}21'N/67^{\circ}00'W$  to

49<sup>0</sup>00'N/67<sup>0</sup>00'W ENDAT

## UNIT AREA 4TQ

starts

The St. Lawrence River bounded by:

 $49^{\circ}20'N/67^{\circ}24'W$  to  $49^{\circ}21'N/67^{\circ}00'W$  to

 $49^{\circ}00'N/67^{\circ}00'W$  in the east and,

 $49^{\circ}00' \text{N}/68^{\circ}40' \text{W}$  to  $48^{\circ}40' \text{N}/68^{\circ}10' \text{W}$  in the west

# UNIT AREA 4TP

starts

The St. Lawrence River west of:

 $49^{0}00'N/68^{0}40'W$  to  $48^{0}40'N/68^{0}10'W$ 

#### DIVISION 4W

starts

 $44^{\circ}25' \text{N}/63^{\circ}35' \text{W}$  to  $44^{\circ}20' \text{N}/63^{\circ}20' \text{W}$  to  $39^{\circ}00' \text{N}/63^{\circ}20' \text{W}$  to  $44^{\circ}10' \text{N}/59^{\circ}00' \text{W}$  to  $44^{\circ}10' \text{N}/60^{\circ}00' \text{W}$  to  $45^{\circ}40' \text{N}/60^{\circ}00' \text{W}$  to  $45^{\circ}40' \text{N}/60^{\circ}15' \text{W}$  ENDAT

## UNIT AREA 4WD

starts

 $45^{0}10'N/61^{0}40'W$  to  $45^{0}00'N/61^{0}30'W$  to  $44^{0}50'N/61^{0}30'W$  to  $44^{0}50'N/60^{0}00'W$  to  $45^{0}40'N/60^{0}00'W$  to  $45^{0}40'N/60^{0}15'W$  ENDAT

#### UNIT AREA 4WE

starts

 $44^{\circ}50'N/61^{\circ}20'W$  to  $44^{\circ}40'N/61^{\circ}20'W$  to  $44^{\circ}40'N/61^{\circ}10'W$  to  $44^{\circ}10'N/61^{\circ}10'W$  to  $44^{\circ}10'N/60^{\circ}00'W$  to  $44^{\circ}50'N/60^{\circ}00'W$  to  $44^{\circ}50'N/61^{\circ}20'W$  ENDAT

#### UNIT AREA 4WF

starts

 $44^{\circ}10^{\circ}N/61^{\circ}00^{\circ}W$  to  $43^{\circ}30^{\circ}N/61^{\circ}00^{\circ}W$  to  $43^{\circ}30^{\circ}N/60^{\circ}10^{\circ}W$  to  $43^{\circ}40^{\circ}N/59^{\circ}30^{\circ}W$  to  $44^{\circ}10^{\circ}N/59^{\circ}30^{\circ}W$  to  $44^{\circ}10^{\circ}N/61^{\circ}00^{\circ}W$  ENDAT

#### UNIT AREA 4WG

starts

 $43^{\circ}30'$ N/ $60^{\circ}40'$ W to  $43^{\circ}00'$ N/ $60^{\circ}40'$ W to  $43^{\circ}00'$ N/ $59^{\circ}00'$ W to  $44^{\circ}10'$ N/ $59^{\circ}30'$ W to  $43^{\circ}40'$ N/ $59^{\circ}30'$ W to  $43^{\circ}40'$ N/ $60^{\circ}10'$ W to  $43^{\circ}30'$ N/ $60^{\circ}10'$ W to  $43^{\circ}30'$ N/ $60^{\circ}40'$ W ENDAT

#### UNIT AREA 4WH

starts

 $44^{\circ}30' \text{N}/62^{\circ}10' \text{W}$  to  $43^{\circ}50' \text{N}/62^{\circ}10' \text{W}$  to  $43^{\circ}50' \text{N}/61^{\circ}40' \text{W}$  to  $43^{\circ}40' \text{N}/61^{\circ}40' \text{W}$  to  $43^{\circ}40' \text{N}/61^{\circ}40' \text{W}$  to  $43^{\circ}40' \text{N}/61^{\circ}30' \text{W}$  to  $43^{\circ}30' \text{N}/61^{\circ}30' \text{W}$  to  $43^{\circ}30' \text{N}/61^{\circ}00' \text{W}$  to  $44^{\circ}10' \text{N}/61^{\circ}00' \text{W}$  to  $44^{\circ}10' \text{N}/61^{\circ}10' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}10' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}20' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}20' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}30' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}30' \text{W}$  to  $44^{\circ}40' \text{N}/61^{\circ}30' \text{W}$  to  $44^{\circ}40' \text{N}/62^{\circ}00' \text{W}$  to  $44^{\circ}40' \text{N}/62^{\circ}00' \text{W}$  to  $44^{\circ}30' \text{N}/62^{\circ}00' \text{W}$  to

#### UNIT AREA 4WJ

starts

 $43^{\circ}50'$  N/ $62^{\circ}10'$ W to  $42^{\circ}40'$  N/ $62^{\circ}10'$ W to  $42^{\circ}40'$  N/ $60^{\circ}40'$ W to  $43^{\circ}30'$  N/ $60^{\circ}40'$ W to  $43^{\circ}30'$  N/ $61^{\circ}30'$ W to  $43^{\circ}40'$  N/ $61^{\circ}30'$ W to  $43^{\circ}40'$  N/ $61^{\circ}40'$ W to  $43^{\circ}50'$  N/ $61^{\circ}40'$ W to  $43^{\circ}50'$  N/ $62^{\circ}10'$ W ENDAT

## UNIT AREA 4WK

starts

 $44^{\circ}25^{\circ}N/63^{\circ}35^{\circ}W$  to  $44^{\circ}20^{\circ}N/63^{\circ}20^{\circ}W$  to  $44^{\circ}00^{\circ}N/62^{\circ}10^{\circ}W$  to  $44^{\circ}30^{\circ}N/62^{\circ}10^{\circ}W$  to  $44^{\circ}30^{\circ}N/62^{\circ}00^{\circ}W$  to  $44^{\circ}40^{\circ}N/62^{\circ}00^{\circ}W$  to  $44^{\circ}40^{\circ}N/61^{\circ}30^{\circ}W$  to  $45^{\circ}00^{\circ}N/61^{\circ}30^{\circ}W$  to  $45^{\circ}00^{\circ}N/61^{\circ}30^{\circ}W$  to  $45^{\circ}00^{\circ}N/61^{\circ}40^{\circ}W$  ENDAT

## UNIT AREA 4WL

starts

 $44^{0}00'N/63^{0}20'W$  to  $42^{0}40'N/63^{0}20'W$  to  $42^{0}40'N/62^{0}10'W$  to  $44^{0}00'N/62^{0}10'W$  to  $44^{0}00'N/63^{0}20'W$  ENDAT

## UNIT AREA 4WM

starts

 $42^{\circ}40' \text{N}/63^{\circ}20' \text{W}$  to  $41^{\circ}00' \text{N}/63^{\circ}20' \text{W}$  to  $41^{\circ}00' \text{N}/61^{\circ}30' \text{W}$  to  $41^{\circ}30' \text{N}/61^{\circ}30' \text{W}$  to  $41^{\circ}30' \text{N}/60^{\circ}30' \text{W}$  to  $42^{\circ}00' \text{N}/60^{\circ}30' \text{W}$  to  $42^{\circ}00' \text{N}/59^{\circ}00' \text{W}$  to  $43^{\circ}00' \text{N}/59^{\circ}00' \text{W}$  to  $43^{\circ}00' \text{N}/60^{\circ}40' \text{W}$  to  $42^{\circ}40' \text{N}/60^{\circ}40' \text{W}$  to  $42^{\circ}40' \text{N}/60^{\circ}40' \text{W}$  to  $42^{\circ}40' \text{N}/60^{\circ}40' \text{W}$  to  $42^{\circ}40' \text{N}/60^{\circ}40' \text{W}$  to

Area 4WW is the remainder of the Division 4W not included in the Unit Area description.

### DIVISION 4X

starts

 $45^{\circ}05^{\circ}N/66^{\circ}50^{\circ}W$  to  $43^{\circ}50^{\circ}N/66^{\circ}50^{\circ}W$  to  $43^{\circ}50^{\circ}N/67^{\circ}40^{\circ}W$  to  $42^{\circ}20^{\circ}N/67^{\circ}40^{\circ}W$  to  $42^{\circ}20^{\circ}N/66^{\circ}00^{\circ}W$  to  $42^{\circ}20^{\circ}N/65^{\circ}40^{\circ}W$  to  $39^{\circ}00^{\circ}N/65^{\circ}40^{\circ}W$  to  $39^{\circ}00^{\circ}N/63^{\circ}20^{\circ}W$  to  $44^{\circ}20^{\circ}N/63^{\circ}20^{\circ}W$  to  $44^{\circ}20^{\circ}N/63^{\circ}35^{\circ}W$  ENDAT

# UNIT AREA 4XL

starts

 $42^{\circ}00' \text{N}/65^{\circ}40' \text{W}$  to  $40^{\circ}40' \text{N}/65^{\circ}40' \text{W}$  to  $40^{\circ}40' \text{N}/65^{\circ}10' \text{W}$  to  $40^{\circ}50' \text{N}/65^{\circ}10' \text{W}$  to  $40^{\circ}50' \text{N}/65^{\circ}10' \text{W}$  to  $40^{\circ}50' \text{N}/64^{\circ}50' \text{W}$  to  $41^{\circ}00' \text{N}/64^{\circ}50' \text{W}$  to  $41^{\circ}00' \text{N}/64^{\circ}10' \text{W}$  to  $41^{\circ}10' \text{N}/64^{\circ}10' \text{W}$  to  $41^{\circ}10' \text{N}/63^{\circ}40' \text{W}$  to  $41^{\circ}30' \text{N}/63^{\circ}40' \text{W}$  to  $41^{\circ}30' \text{N}/63^{\circ}40' \text{W}$  to  $42^{\circ}00' \text{N}/63^{\circ}20' \text{W}$  to  $42^{\circ}00' \text{N}/65^{\circ}40' \text{W}$  ENDAT

# UNIT AREA 4XM

starts

 $44^{o}10$ 'N/ $64^{o}30$ 'W to  $44^{o}00$ 'N/ $64^{o}20$ 'W to  $43^{o}40$ 'N/ $64^{o}20$ 'W to  $43^{o}40$ 'N/ $63^{o}20$ 'W to  $44^{o}20$ 'N/ $63^{o}20$ 'W to  $44^{o}25$ 'N/ $63^{o}35$ 'W ENDAT

## UNIT AREA 4XN

starts

 $42^{\circ}50' \text{N}/65^{\circ}30' \text{W}$  to  $42^{\circ}00' \text{N}/65^{\circ}30' \text{W}$  to  $42^{\circ}00' \text{N}/63^{\circ}20' \text{W}$  to  $43^{\circ}40' \text{N}/63^{\circ}20' \text{W}$  to  $43^{\circ}40' \text{N}/64^{\circ}20' \text{W}$  to  $43^{\circ}20' \text{N}/64^{\circ}20' \text{W}$  to  $43^{\circ}20' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}10' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}10' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}10' \text{N}/64^{\circ}50' \text{W}$  to  $42^{\circ}50' \text{N}/64^{\circ}50' \text{W}$  to  $42^{\circ}50' \text{N}/65^{\circ}30' \text{W}$  ENDAT

## UNIT AREA 4X0

starts

 $43^{\circ}35' \text{N}/65^{\circ}50' \text{W}$  to  $43^{\circ}10' \text{N}/65^{\circ}50' \text{W}$  to  $43^{\circ}00' \text{N}/66^{\circ}10' \text{W}$  to  $42^{\circ}50' \text{N}/66^{\circ}10' \text{W}$  to  $42^{\circ}50' \text{N}/64^{\circ}50' \text{W}$  to  $43^{\circ}10' \text{N}/64^{\circ}50' \text{W}$  to  $43^{\circ}10' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}20' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}20' \text{N}/64^{\circ}30' \text{W}$  to  $43^{\circ}20' \text{N}/64^{\circ}20' \text{W}$  to  $44^{\circ}00' \text{N}/64^{\circ}20' \text{W}$  to  $44^{\circ}10' \text{N}/64^{\circ}30' \text{W}$  ENDAT

## UNIT AREA 4XP

starts

 $43^{0}00^{\circ}N/67^{0}40^{\circ}W$  to  $42^{0}20^{\circ}N/67^{0}40^{\circ}W$  to  $42^{0}20^{\circ}N/65^{0}40^{\circ}W$  to  $42^{0}00^{\circ}N/65^{0}40^{\circ}W$  to  $42^{0}00^{\circ}N/65^{0}30^{\circ}W$  to  $42^{0}50^{\circ}N/65^{0}30^{\circ}W$  to  $42^{0}50^{\circ}N/66^{0}10^{\circ}W$  to  $43^{0}00^{\circ}N/66^{0}10^{\circ}W$  to  $43^{0}00^{\circ}N/67^{0}40^{\circ}W$  ENDAT

# UNIT AREA 4XQ

starts

 $44^{0}00'N/66^{0}10'W$  to  $44^{0}00'N/66^{0}50'W$  to  $43^{0}50'N/67^{0}40'W$  to  $43^{0}50'N/67^{0}40'W$  to  $43^{0}00'N/67^{0}40'W$  to  $43^{0}00'N/66^{0}10'W$  to  $43^{0}10'N/66^{0}10'W$  to  $43^{0}10'N/65^{0}50'W$  to  $43^{0}35'N/65^{0}50'W$  ENDAT

# UNIT AREA 4XR

starts

 $45^{\circ}20'$ N/ $64^{\circ}55'$ W to  $44^{\circ}20'$ N/ $66^{\circ}50'$ W to  $44^{\circ}00'$ N/ $66^{\circ}10'$ W ENDAT

# UNIT AREA 4XS

starts  $45^{0}05'N/66^{0}50'W$  to  $44^{0}20'N/66^{0}50'W$  to  $45^{0}20'N/64^{0}55'W$  ENDAT

Area 4XX is the remainder of Division 4X not included in the Unit Area Description.

### DIVISION 5Y

starts

 $41^{\circ}27' \text{N}/71^{\circ}10' \text{W}$  to  $41^{\circ}17' \text{N}/71^{\circ}10' \text{W}$  to  $41^{\circ}17' \text{N}/70^{\circ}00' \text{W}$  to  $42^{\circ}20' \text{N}/70^{\circ}00' \text{W}$  to  $42^{\circ}20' \text{N}/67^{\circ}40' \text{W}$  to  $43^{\circ}50' \text{N}/67^{\circ}40' \text{W}$  to  $43^{\circ}50' \text{N}/66^{\circ}50' \text{W}$  ENDAT

# UNIT AREA 5YB

starts

 $44^{o}24'N/68^{o}05'W$  to  $44^{o}10'N/68^{o}05'W$  to  $44^{o}10'N/67^{o}40'W$  to  $43^{o}50'N/67^{o}40'W$  to  $43^{o}50'N/66^{o}50'W$  to  $45^{o}05'N/66^{o}50'W$  ENDAT

## UNIT AREA 5YC

starts

 $43^{\circ}58' \text{N}/69^{\circ}20' \text{W}$  to  $43^{\circ}40' \text{N}/69^{\circ}20' \text{W}$  to  $43^{\circ}40' \text{N}/68^{\circ}50' \text{W}$  to  $43^{\circ}20' \text{N}/68^{\circ}50' \text{W}$  to  $43^{\circ}20' \text{N}/67^{\circ}40' \text{W}$  to  $44^{\circ}10' \text{N}/67^{\circ}40' \text{W}$  to  $44^{\circ}10' \text{N}/68^{\circ}05' \text{W}$  ENDAT

# UNIT AREA 5YD

starts

 $42^{\circ}50' \text{N}/70^{\circ}49' \text{W}$  to  $42^{\circ}50' \text{N}/69^{\circ}10' \text{W}$  to  $43^{\circ}00' \text{N}/69^{\circ}10' \text{W}$  to  $43^{\circ}00' \text{N}/69^{\circ}00' \text{W}$  to  $43^{\circ}10' \text{N}/69^{\circ}00' \text{W}$  to  $43^{\circ}10' \text{N}/68^{\circ}50' \text{W}$  to  $43^{\circ}40' \text{N}/68^{\circ}50' \text{W}$  to  $43^{\circ}40' \text{N}/69^{\circ}20' \text{W}$  to  $43^{\circ}58' \text{N}/69^{\circ}20' \text{W}$  ENDAT

## UNIT AREA 5YE

starts

 $41^{\circ}27'N/71^{\circ}10'W$  to  $41^{\circ}17'N/71^{\circ}10'W$  to  $41^{\circ}17'N/70^{\circ}00'W$  to  $42^{\circ}20'N/70^{\circ}00'W$  to  $42^{\circ}20'N/69^{\circ}40'W$  to  $42^{\circ}50'N/69^{\circ}40'W$  to  $42^{\circ}50'N/70^{\circ}49'W$  ENDAT

# UNIT AREA 5YF

starts

 $42^{\circ}50$ 'N/ $69^{\circ}40$ 'W to  $42^{\circ}20$ 'N/ $69^{\circ}40$ 'W to  $42^{\circ}20$ 'N/ $67^{\circ}40$ 'W to  $43^{\circ}20$ 'N/ $67^{\circ}40$ 'W to  $43^{\circ}20$ 'N/ $68^{\circ}50$ 'W to  $43^{\circ}10$ 'N/ $68^{\circ}50$ 'W to  $43^{\circ}10$ 'N/ $69^{\circ}00$ 'W to  $43^{\circ}00$ 'N/ $69^{\circ}00$ 'W to  $43^{\circ}00$ 'N/ $69^{\circ}10$ 'W to  $42^{\circ}50$ 'N/ $69^{\circ}10$ 'W to  $42^{\circ}50$ 'N/ $69^{\circ}40$ 'W ENDAT

# DIVISION 5Z

starts  $41^{\circ}20'\text{N}/71^{\circ}40'\text{W}$  to  $39^{\circ}00'\text{N}/71^{\circ}40'\text{W}$  to  $39^{\circ}00'\text{N}/65^{\circ}40'\text{W}$  to  $42^{\circ}00'\text{N}/65^{\circ}40'\text{W}$  to  $42^{\circ}20'\text{N}/66^{\circ}00'\text{W}$  to  $42^{\circ}20'\text{N}/71^{\circ}03'\text{W}$  ENDAT

## UNIT AREA 5ZG

starts  $42^{\circ}20'\text{N}/70^{\circ}00'\text{W}$  to  $41^{\circ}17'\text{N}/70^{\circ}00'\text{W}$  to  $41^{\circ}17'\text{N}/69^{\circ}50'\text{W}$  to  $41^{\circ}10'\text{N}/69^{\circ}50'\text{W}$  to  $41^{\circ}10'\text{N}/69^{\circ}30'\text{W}$  to  $41^{\circ}00'\text{N}/69^{\circ}30'\text{W}$  to  $41^{\circ}00'\text{N}/68^{\circ}50'\text{W}$  to  $42^{\circ}20'\text{N}/68^{\circ}50'\text{W}$  to  $42^{\circ}20'\text{N}/70^{\circ}00'\text{W}$  ENDAT

## UNIT AREA 5ZH

starts  $42^{\circ}20'\text{N}/68^{\circ}50'\text{W}$  to  $41^{\circ}00'\text{N}/68^{\circ}50'\text{W}$  to  $41^{\circ}00'\text{N}/68^{\circ}20'\text{W}$  to  $41^{\circ}10'\text{N}/68^{\circ}20'\text{W}$  to  $41^{\circ}10'\text{N}/68^{\circ}10'\text{W}$  to  $41^{\circ}20'\text{N}/68^{\circ}10'\text{W}$  to  $41^{\circ}20'\text{N}/67^{\circ}40'\text{W}$  to  $42^{\circ}20'\text{N}/67^{\circ}40'\text{W}$  to  $42^{\circ}20'\text{N}/68^{\circ}50'\text{W}$  ENDAT

# UNIT AREA 5ZJ

starts  $42^{\circ}20'\text{N}/67^{\circ}40'\text{W}$  to  $41^{\circ}50'\text{N}/67^{\circ}40'\text{W}$  to  $41^{\circ}50'\text{N}/65^{\circ}40'\text{W}$  to  $42^{\circ}20'\text{N}/65^{\circ}40'\text{W}$  to  $42^{\circ}20'\text{N}/67^{\circ}40'\text{W}$  ENDAT

# UNIT AREA 5ZM

starts

 $41^{\circ}50^{\circ}N/67^{\circ}40^{\circ}W$  to  $41^{\circ}10^{\circ}N/67^{\circ}40^{\circ}W$  to  $41^{\circ}10^{\circ}N/67^{\circ}10^{\circ}W$  to  $41^{\circ}10^{\circ}N/67^{\circ}10^{\circ}W$  to  $41^{\circ}00^{\circ}N/67^{\circ}10^{\circ}W$  to  $39^{\circ}50^{\circ}N/67^{\circ}00^{\circ}W$  to  $39^{\circ}50^{\circ}N/66^{\circ}50^{\circ}W$  to  $39^{\circ}40^{\circ}N/66^{\circ}50^{\circ}W$  to  $39^{\circ}40^{\circ}N/66^{\circ}40^{\circ}W$  to  $39^{\circ}00^{\circ}N/66^{\circ}40^{\circ}W$  to  $41^{\circ}50^{\circ}N/65^{\circ}40^{\circ}W$  to  $41^{\circ}50^{\circ}N/67^{\circ}40^{\circ}W$  ENDAT

### UNIT AREA 5ZN

starts

 $41^{0}00^{\circ}N/68^{0}50^{\circ}W$  to  $41^{0}00^{\circ}N/68^{0}20^{\circ}W$  to  $41^{0}10^{\circ}N/68^{0}10^{\circ}W$  to  $41^{0}10^{\circ}N/68^{0}10^{\circ}W$  to  $41^{0}20^{\circ}N/67^{0}40^{\circ}W$  to  $41^{0}20^{\circ}N/67^{0}40^{\circ}W$  to  $41^{0}10^{\circ}N/67^{0}10^{\circ}W$  to  $41^{0}10^{\circ}N/67^{0}10^{\circ}W$  to  $41^{0}00^{\circ}N/67^{0}10^{\circ}W$  to  $41^{0}00^{\circ}N/67^{0}00^{\circ}W$  to  $39^{0}50^{\circ}N/67^{0}00^{\circ}W$  to  $39^{0}50^{\circ}N/66^{0}50^{\circ}W$  to  $39^{0}40^{\circ}N/66^{0}40^{\circ}W$  to  $39^{0}40^{\circ}N/66^{0}40^{\circ}W$  to  $39^{0}00^{\circ}N/66^{0}40^{\circ}W$  to  $41^{0}00^{\circ}N/68^{0}50^{\circ}W$  to

### UNIT AREA 5ZO

starts

 $41^{\circ}17'N/70^{\circ}10'W$  to  $41^{\circ}00'N/70^{\circ}10'W$  to  $41^{\circ}00'N/70^{\circ}30'W$  to  $39^{\circ}00'N/70^{\circ}30'W$  to  $39^{\circ}00'N/68^{\circ}50'W$  to  $41^{\circ}00'N/69^{\circ}30'W$  to  $41^{\circ}10'N/69^{\circ}30'W$  to  $41^{\circ}10'N/69^{\circ}30'W$  to  $41^{\circ}17'N/69^{\circ}30'W$  to  $41^{\circ}17'N/69^{\circ}30'W$  to  $41^{\circ}17'N/70^{\circ}00'W$  ENDAT

# UNIT AREA 5ZQ

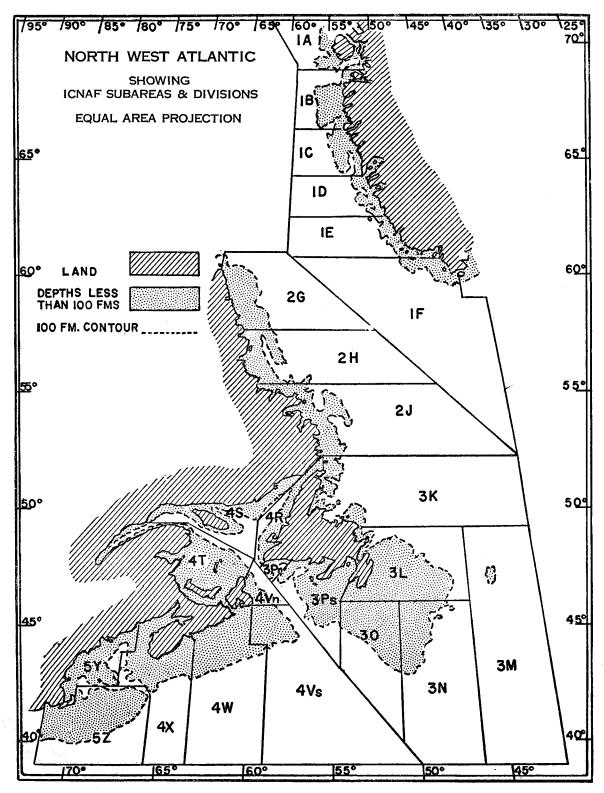
starts

 $41^{0}20'N/71^{0}40'W$  to  $39^{0}00'N/71^{0}40'W$  to

 $39^{\circ}00'N/70^{\circ}30'W$  to  $41^{\circ}00'N/70^{\circ}30'W$  to

 $41^{\circ}00'N/70^{\circ}10'W$  to  $41^{\circ}17'N/70^{\circ}10'W$  to

41<sup>0</sup>17'N/71<sup>0</sup>10'W to 41<sup>0</sup>27'N/71<sup>0</sup>10'W ENDAT



An Equal Area Map of the ICNAF Convention Area.

### INTERNATIONAL COMMISSION FOR



THE NORTHWEST ATLANTIC FISHERIES

Serial No. 1428 F. STAT. a. Bedford Institute of Oceanography P. O. Box 638 Dartmouth, Nova Scotia, Canada

#### Boundaries Of The Convention Area,

#### Of Its Subareas, And Of Their Divisions

#### 1964

Boundaries of the Convention Area and of Subareas as defined in the "Convention" and in its "Annex" (Report of the First Annual Meeting 1951). Boundaries of Divisions as approved at the Third Annual Meeting 1953, Seventh Annual Meeting 1957, Eighth Annual Meeting 1958.

#### A. The Convention Area:

"All waters, except territorial waters, bounded by a line beginning at a point on the coast of Rhode Island in 71040' west longitude; thence due south to 39000' north latitude; thence due east to 42000' west longitude; thence due north to 59000 north latitude; thence due west to 44000' west longitude; thence due north to the coast of Greenland; thence along the west coast of Greenland to 78°10' north latitude; thence southward to a point in 75000' north latitude and 73030' west longitude; thence along a rhumb line to a point in 69000 north latitude and 59°00' west longitude; thence due south to 61°00' north latitude; thence due west to  $64^{\circ}30$ ' west longitude; thence due south to the coast of Labrador; thence in a southerly direction along the coast of Labrador to the southern terminus of its boundary with Quebec; thence in a westerly direction along the coast of Quebec, and in an easterly and southerly direction along the coasts of New Brunswick, Nova Scotia, and Cape Breton Island to Cabot Strait; thence along the coasts of Cape Breton Island, Nova Scotia, New Brunswick, Maine, New Hampshire, Massachusetts, and Rhode Island to the point of beginning.

#### B. The Subareas:

<u>Subarea 1</u> - That portion of the Convention Area which lies to the north and east of a rhumb line from a point in  $75^{\circ}00^{\circ}$  north latitude and  $73^{\circ}30^{\circ}$  west longitude to a point in  $69^{\circ}00^{\circ}$  north latitude and  $59^{\circ}00^{\circ}$  west longitude; east of  $59^{\circ}00^{\circ}$  west longitude; and to the north and east of a rhumb line from a point in  $61^{\circ}00^{\circ}$  north latitude and  $59^{\circ}00^{\circ}$  west longitude to a point in  $52^{\circ}15^{\circ}$  north latitude and  $42^{\circ}00^{\circ}$  west longitude.

<u>Subarea 2</u> - That portion of the Convention Area lying to the south and west of Subarea 1 defined above and to the north of the parallel of 52015' north latitude.

<u>Subarea 3</u> - That portion of the Convention Area lying south of the parallel of 52°15' north latitude; and to the east of a line extending due north from Cape Bauld to the north coast of Newfoundland to 52°15' north latitude; to the north of the parallel of 39°00' north latitude; and to the east and north of a rhumb line extending in a northwesterly direction which passes through a point in 43°30' north latitude, 55°00' west longitude, in the direction of a point in 47°50' north latitude, 60°00' west longitude, until it intersects a straight line connecting Cape Ray, on the coast of Newfoundland, with Cape North on Cape Breton Island; thence in a northeasterly direction along said line to Cape Ray.

<u>Subarea 4</u> - That portion of the Convention area lying to the west of <u>Subarea 3</u> defined above, and to the east of a line described as follows: Beginning at the terminus of the international boundary between the <u>United States of America and Canada in Grand Manan Channel</u>, at a point in  $44^{\circ}46^{\circ}35.34$ " north latitude,  $66^{\circ}54^{\circ}11.23$ " west longitude; thence due

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#### B. The Subareas (cont'd):

south to the parallel of 43°50' north latitude; thence due west to the meridian of 67°40' west longitude; thence due south to the parallel of 42°20' north latitude; thence due east to a point in 66°00' west longitude; thence along a rhumb line in a southeasterly direction to a point in 42°00' north latitude, 65°40' west longitude; thence due south to the parallel of 39°00' north latitude.

<u>Subarea 5</u> - That portion of the Convention Area lying west of the western boundary of Subarea 4 defined above.

### C. The Divisions:

#### Of Subarea 1:

- 1A. That portion of the subarea lying north of the parallel of 68°50° N. Lat. (Christianshab).
- 1B. That portion of the subarea lying between the parallel of 66°15° N. Lat. (5 n.m. north of Umanarsugssuak) and the parallel of 68°50° N. Lat. (Christianshab).
- 1C. That portion of the subarea lying between the parallel of 64°15', N. Lat. (4 n.m. north of Godth&b) and the parallel of 66°15' N. Lat. (5 n.m. north of Umanarsugssuak).
- 1D. That portion of the subarea lying between the parallel of 62°30° N. Lat. (Frederikshab Glacier) and the parallel of 64°15° N. Lat. (4 n.m. north of Godthab).
- 1E. That portion of the subarea lying between the parallel of 60°45' N. Lat. (Cape Desolation) and the parallel of 62°30' N. Lat. (Frederikshab Glacier).
- 1F. That portion of the subarea lying south of the parallel of  $60^{\rm O}45^{\rm s}$  N. Lat. (Cape Desolation).

#### Of Subarea 2:

- 2G. That portion of the subarea lying north of the parallel of 57°40. N. Lat. (Cape Mugford).
- 2H. That portion of the subarea lying between the parallel of  $55^{\circ}20^{\circ}$  N. Lat. (Hopedale) and the parallel of  $57^{\circ}40^{\circ}$  N. Lat. (Cape Mugford).
- 2J. That portion of the subarea lying south of the parallel of 55°20° N. Lat. (Hopedale).

### Of Subarea 3:

- 3K. That portion of the subarea lying north of the parallel of 49<sup>0</sup>15<sup>†</sup> N. Lat. (Cape Freels, Nfld.).
- 3L. That portion of the subarea lying between the Newfoundland coast from Cape Freels to Cape St. Mary and a line described as follows: Beginning at Cape Freels, thence due east to the meridian of 46°30° W. Long., thence due south to the parallel of 46°00° N. Lat., thence due west to the meridian of 54°30° W. Long., thence along a rhumb line to Cape St. Mary, Nfld.
- 3M. That portion of the subarea lying south of the parallel of  $49^{\circ}15^{\circ}$  N. Lat. and east of the meridian of  $46^{\circ}30^{\circ}$  W. Long.

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#### Of Subarea 3 (cont'd):

- 3N. That portion of the subarea lying south of the parallel of  $46^{\circ}00^{\circ}$  N. Lat, and between the meridian of  $46^{\circ}30^{\circ}$  W. Long. and the meridian of  $51^{\circ}00^{\circ}$  W. Long.
- 30. That portion of the subarea lying south of the parallel of  $46^{\circ}00^{\circ}$  N. Lat. and between the meridian of  $51^{\circ}00^{\circ}$  W. Long. and the meridian of  $54^{\circ}30^{\circ}$  W. Long.
- 3P. That portion of the subarea lying south of the Newfoundland coast and west of a line from Cape St. Mary, Nfld. to a point in 46<sup>0</sup>00' N. Lat., 54<sup>0</sup>30' W. Long, thence due south until the boundary between Subareas 3 and 4.

Division 3P should be divided into two portions: a northwestern and a southeastern portion, defined as follows:

3Pn. Northwestern portion - that portion of Division 3P lying northwest of a line extending from Burgeo Island, Newfoundland, approximately southwest to a point 46°50° Lat. North and 58°50° Long. West.

3Ps. Southeastern portion - that portion of Division 3P lying southeast of the line defined for 3Pn.

#### Of Subarea 4:

- 4R. That portion of the subarea lying between the coast of Newfoundland from Cape Bauld to Cape Ray and a line described as follows: Beginning at Cape Bauld, thence due north to the parallel of 52°15' N. Lat., thence due west to the Labrador coast, thence along the Labrador coast to the terminus of the Labrador-Quebec boundary, thence along a rhumb line in a southwesterly direction to a point in 49°25' N. Lat., 60°00' W. Long., thence due south to a point in 47°50' N. Lat., 60°00' W. Long., thence along a rhumb line in a southeasterly direction to the intersection of a straight line between Cape North, N. S. and Cape Ray, Nfld., thence to Cape Ray, Nfld.
- 4S. That portion of the subarea lying between the south coast of the province Quebec from the terminus of the Labrador-Quebec boundary to Pte. des Monts and a line described as follows: Beginning at Pte. des Monts, thence due east to a point in 49°25' N. Lat., 64°40' W. Long., thence along a rhumb line in an eastsoutheasterly direction to a point in 47°50' N. Lat., 60°00' W. Long., thence due north to a point in 49°25' N. Lat., 60°00' W. Long., thence along a rhumb line in a northeasterly direction to the terminus of the Labrador-Quebec boundary.
- 4T. That portion of the subarea lying between the coasts of Nova Scotia, New Brunswick and Quebec from Cape North to Pte. des Monts and a line described as follows: Beginning at Pte. des Monts, thence due east to a point in 49°25' N. Lat., 64°40' W. Long., thence along a rhumb line in an east-southeasterly direction to a point in 47°50' N. Lat., 60°00' W. Long., thence along a rhumb line in a southerly direction to Cape North, N. S.
- 4V. That portion of the subarea lying between the coast of Nova Scotia between Cape North and Fourchu and a line described as follows: Beginning at Fourchu, thence along a rhumb line in a southerly direction to a point in 45°40° N. Lat., 60°00° W. Long., thence due south along the meridian of 60°00° W. Long., to the parallel of 44°10° N. Lat., thence due east to the meridian of 59°00° W. Long., thence due south to the parallel of 39°00° N. Lat., thence due east to a point where the boundary between

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#### Of Subarea 4 (cont'd):

#### 4V.(cont'd)

the Subareas 3 and 4 meets the parallel of 39000' N. Lat., thence along the boundary between Subareas 3 and 4 and a line continuing in a north-westerly direction to a point in 47050' N. Lat., 60000' N. Long., thence along a rhumb line in a southerly direction to Cape North, N. S.

Division 4V should be divided into two portions: a northern and a southern portion, defined as follows:

4Vn. Northern portion - that portion of Division 4V lying north of parallel 45°40' North.

4Vs. Southern portion - that portion of Division 4V lying south of parallel  $45^{\circ}40^{\circ}$  North.

- 4W. That portion of the subarea lying between the coast of Nova Scotia between Halifax and Fourchu and a line described as follows: Beginning at Fourchu, thence along a rhumb line in a southerly direction to a point in 45°40° N. Lat., 60°00° W. Long., thence due south along the meridian of 60°00° W. Long., to the parallel of 44°10° N. Lat., thence due east to the meridian of 59°00° W. Long., thence due south to the parallel of 39°00° N. Lat., thence due west to the meridian of 63°20° W. Long., thence due north to a point on that meridian in 44°20° N. Lat., thence along a rhumb line in a northwesterly direction to Halifax, N. S.
- 4X. That portion of the subarea lying between the boundary of Subareas 4 and 5 and the coasts of New Brunswick and Nova Scotia from the terminus of the boundary between New Brunswick and Maine to Halifax, and a line described as follows: Beginning at Halifax, thence along a rhumb line in a southeasterly direction to a point in 44°20° N. Lat., 63°20° W. Long., thence due south to the parallel of 39°00° N. Lat., thence due west to the meridian of 65°40° W. Long.

### Of Subarea 5:

- 5Y. That portion of the subarea lying between the coasts of Maine, New Hampshire, and Massachusetts from the border between Maine and New Brunswick to 70° W. longitude on Cape Cod (at approximately 42° north latitude) and a line described as follows: Beginning at a point on Cape Cod at 70° W. longitude (at approximately 42° north latitude) thence due north to latitude 42°20' north, thence due east to longitude 67°40' west at the boundary of Subareas 4 and 5, thence along the boundary to the boundary of Maine and New Brunswick.
- 5Z. That portion of the subarea lying to the south and east of Subdivision 5Y.

July, 1964

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All Groundfish Technicians

YOUR HIT No. Your appear

OUR FILE No. 1-2-0-0

Notice dossier 11-1-0

FROM De R.G. Halliday

DATE Sept. 3, 19

FULD

SUBJECT Sujet

# Chart No. 6610 - L showing Statistical Unit Areas

This chart was distributed to field personnel in August 1968 to aid them in referring various data to Unit Areas.

The original Statistical Areas were set up by the North American Council on Fishery Investigation in 1943. When ICNAF set up their Subareas and Divisions some of their boundaries did not coincide with those of the original Statistical Areas. At about this time the St. Andrews Groundfish Investigation modified the Unit Area boundaries to coincide with those of the ICNAF Divisions. The charts drawn up in August 1968 are erroneous in showing the unmodified Areas set up in 1943. The following corrections should be made:

- 1. That part of 4X-M which is in 4W should be included as part of 4W-K.
- 2. The latitudinal line dividing 4X-M and N should be extended east to meet the 4X-4W boundary line and that part of 4W-L which extends into 4X should be designated 4X-M if it lies to the north of the M-N boundary and 4X-N if it lies to the south.
- $\sqrt{3}$ . The 4X R 5Z J boundary should not be stepped but should be represented by a diagonal line.
- 4. The 4X-R, 4X-S, 5Y-B boundary should run due south from 44° 46' 36" N, 66° 54' 11" W to meet the latitudinal line at 43° 50' N.
- 5. The line dividing 4X-R and 4X-S should run from 144° 16'N, 66° 54' 11"W in the south to 45° 20'N, 64° 56'W in the north of the Bay of Fundy.

You will note that the line dividing 4X-R and 4X-S on the August 1968 chart is wrong even in terms of the 1943 Statistical Areas. It has been drawn in from 44,0 10'N instead of 44,0 20'N.

6. The latitudinal line dividing 4V - B and C should be extended westward to meet the 4V - 4W boundary line and that part of 4W - D which extends into 4V should be designated 4V - B if it lies to the north of the B - C boundary and 4V - C if it lies to the south.

It is unlikely that any of these errors, with the possible exception of that in the 4X-R, S boundary, will have had any significant affect on our statistics collection. However, please give us an estimate of the affect of these errors on the data you have collected over the past year.

Most confusion has occurred over the 4X-R, S and 5Y-B boundaries, and the definition of them given here is different from any so far used. The revisions which occurred after the ICNAF boundaries were set up apparently slipped into use among some people and not others. No definite decision seems to have been made at any time regarding revisions.

This memo will be put on file and considered as a formal revision of Unit Areas to conform with ICNAF Division boundaries.

Hy Halliday

# INTERNATIONAL COMMISSION FOR



## THE NORTHWEST ATLANTIC FISHERIES.

Serial No. 1428 F. STAT. a. Bedford Institute of Oceanography P. O. Box 638
Dartmouth, Nova Scotia, Canada

### Boundaries Of The Convention Area,

# Of Its Subareas, And Of Their Divisions

### 1964

Boundaries of the Convention Area and of Subareas as defined in the "Convention" and in its "Annex" (Report of the First Annual Meeting 1951). Boundaries of Divisions as approved at the Third Annual Meeting 1953, Seventh Annual Meeting 1957, Eighth Annual Meeting 1958.

### A. The Convention Area:

"All waters, except territorial waters, bounded by a line beginning at a point on the coast of Rhode Island in 71040' west longitude; thence due south to 39000' north latitude; thence due east to 42000' west longitude; thence due north to 59000' north latitude; thence due west to 44000 west longitude; thence due north to the coast of Greenland; thence along the west coast of Greenland to 78010' north latitude; thence southward to a point in 75000' north latitude and 73030' west longitude; thence along a rhumb line to a point in 69000' north latitude and 59000 west longitude: thence due south to 61000 north latitude; thence due west to 64030 west longitude; thence due south to the coast of Labrador; thence in a southerly direction along the coast of Labrador to the southern terminus of its boundary with Quebec; thence in a westerly direction along the coast of Quebec, and in an easterly and southerly direction along the coasts of New Brunswick, Nova Scotia, and Cape Breton Island to Cabot Strait; thence along the coasts of Cape Breton Island, Nova Scotia, New Brunswick, Maine, New Hampshire, Massachusetts, and Rhode Island to the point of beginning.

### B. The Subareas:

Subarea 1 - That portion of the Convention Area which lies to the north and east of a rhumb line from a point in  $75^{\circ}00^{\circ}$  north latitude and  $73^{\circ}30^{\circ}$  west longitude to a point in  $69^{\circ}00^{\circ}$  north latitude and  $59^{\circ}00^{\circ}$  west longitude; and to the north and east of a rhumb line from a point in  $61^{\circ}00^{\circ}$  north latitude and  $59^{\circ}00^{\circ}$  west longitude to a point in  $52^{\circ}15^{\circ}$  north latitude and  $42^{\circ}00^{\circ}$  west longitude.

<u>Subarea 2</u> - That portion of the Convention Area lying to the south and west of Subarea 1 defined above and to the north of the parallel of 52<sup>0</sup>15<sup>t</sup> north latitude.

Subarea 3 - That portion of the Convention Area lying south of the parallel of 52°15' north latitude; and to the east of a line extending due north from Cape Bauld to the north coast of Newfoundland to 52°15' north latitude; to the north of the parallel of 39°00' north latitude; and to the east and north of a rhumb line extending in a northwesterly direction which passes through a point in 43°30' north latitude, 55°00' west longitude, in the direction of a point in 47°50' north latitude, 60°00' west longitude, until it intersects a straight line connecting Cape Ray, on the coast of Newfoundland, with Cape North on Cape Breton Island; thence in a northeasterly direction along said line to Cape Ray.

Subarea 4 - That portion of the Convention area lying to the west of Subarea 3 defined above, and to the east of a line described as follows: Beginning at the terminus of the international boundary between the United States of America and Canada in Grand Manan Channel, at a point in 44°46'35.34" north latitude, 66°54'11.23" west longitude; thence due

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### B. The Subareas (cont'd):

south to the parallel of 43°50' north latitude; thence due west to the meridian of 67°40' west longitude; thence due south to the parallel of 42°20' north latitude; thence due east to a point in 66°00' west longitude; thence along a rhumb line in a southeasterly direction to a point in 42°00' north latitude, 65°40' west longitude; thence due south to the parallel of 39°00' north latitude.

 $\underline{\text{Subarea 5}}$  - That portion of the Convention Area lying west of the western boundary of Subarea 4 defined above.

## C. The Divisions:

## Of Subarea 1:

- 1A. That portion of the subarea lying north of the parallel of 68°50° N. Lat. (Christianshab).
- 1B. That portion of the subarea lying between the parallel of 66<sup>0</sup>15<sup>t</sup> N. Lat. (5 n.m. north of Umanarsugssuak) and the parallel of 68<sup>0</sup>50<sup>t</sup> N. Lat. (Christianshab).
- 1C. That portion of the subarea lying between the parallel of 64°15°, N. Lat. (4 n.m. north of Godthab) and the parallel of 66°15° N. Lat. (5 n.m. north of Umanarsugssuak).
- 1D. That portion of the subarea lying between the parallel of 62°30° N. Lat. (Frederikshab Glacier) and the parallel of 64°15° N. Lat. (4 n.m. north of Godthab).
- 1E. That portion of the subarea lying between the parallel of 60°45° N. Lat. (Cape Desolation) and the parallel of 62°30° N. Lat. (Frederikshab Glacier).
- 1F. That portion of the subarea lying south of the parallel of 60°45' N. Lat. (Cape Desolation).

### Of Subarea 2:

- 2G. That portion of the subarea lying north of the parallel of  $57^{\circ}40^{\circ}$  N. Lat. (Cape Mugford).
- 2H. That portion of the subarea lying between the parallel of 55°20° N. Lat. (Hopedale) and the parallel of 57°40° N. Lat. (Cape Mugford).
- 2J. That portion of the subarea lying south of the parallel of 55°20° N. Lat. (Hopedale).

# Of Subarea 3:

- 3K. That portion of the subarea lying north of the parallel of 49°15° N. Lat. (Cape Freels, Nfld.).
- 3L. That portion of the subarea lying between the Newfoundland coast from Cape Freels to Cape St. Mary and a line described as follows: Beginning at Cape Freels, thence due east to the meridian of 46°30° W. Long., thence due south to the parallel of 46°00° N. Lat., thence due west to the meridian of 54°30° W. Long., thence along a rhumb line to Cape St. Mary, Nfld.
- 3M. That portion of the subarea lying south of the parallel of 49°15' N. Lat. and east of the meridian of 46°30' W. Long.

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### Of Subarea 3 (cont'd):

- 3N. That portion of the subarea lying south of the parallel of 46°00° N. Lat. and between the meridian of 46°30° W. Long. and the meridian of 51°00° W. Long.
- 30. That portion of the subarea lying south of the parallel of 46<sup>0</sup>00° N. Lat. and between the meridian of 51<sup>0</sup>00° W. Long. and the meridian of 54<sup>0</sup>30° W. Long.
- 3P. That portion of the subarea lying south of the Newfoundland coast and west of a line from Cape St. Mary, Nfld. to a point in 46°00' N. Lat., 54°30' W. Long, thence due south until the boundary between Subareas 3 and 4.

Division 3P should be divided into two portions: a northwestern and a southeastern portion, defined as follows:

3Pn. Northwestern portion - that portion of Division 3P lying northwest of a line extending from Burgeo Island, Newfoundland, approximately southwest to a point  $46^{\circ}50^{\circ}$  Lat. North and  $58^{\circ}50^{\circ}$  Long. West.

3Ps. Southeastern portion - that portion of Division 3P lying southeast of the line defined for 3Pn.

### Of Subarea 4:

- 4R. That portion of the subarea lying between the coast of Newfoundland from Cape Bauld to Cape Ray and a line described as follows: Beginning at Cape Bauld, thence due north to the parallel of 52°15' N. Lat., thence due west to the Labrador coast, thence along the Labrador coast to the terminus of the Labrador-Quebec boundary, thence along a rhumb line in a southwesterly direction to a point in 49°25' N. Lat., 60°00' W. Long., thence due south to a point in 47°50' N. Lat., 60°00' W. Long., thence along a rhumb line in a southeasterly direction to the intersection of a straight line between Cape North, N. S. and Cape Ray, Nfld., thence to Cape Ray, Nfld.
- 4S. That portion of the subarea lying between the south coast of the province Quebec from the terminus of the Labrador-Quebec boundary to Pte. des Monts and a line described as follows: Beginning at Pte. des Monts, thence due east to a point in 49°25\* N. Lat., 64°40\* W. Long., thence along a rhumb line in an eastsoutheasterly direction to a point in 47°50\* N. Lat., 60°00\* W. Long., thence due north to a point in 49°25\* N. Lat., 60°00\* W. Long., thence along a rhumb line in a northeasterly direction to the terminus of the Labrador-Quebec boundary.
- 4T. That portion of the subarea lying between the coasts of Nova Scotia, New Brunswick and Quebec from Cape North to Pte. des Monts and a line described as follows: Beginning at Pte. des Monts, thence due east to a point in 49°25° N. Lat., 64°40° W. Long., thence along a rhumb line in an east-southeasterly direction to a point in 47°50° N. Lat., 60°00° W. Long., thence along a rhumb line in a southerly direction to Cape North, N. S.
- 4V. That portion of the subarea lying between the coast of Nova Scotia between Cape North and Fourchu and a line described as follows: Beginning at Fourchu, thence along a rhumb line in a southerly direction to a point in 45°40° N. Lat., 60°00° W. Long., thence due south along the meridian of 60°00° W. Long., to the parallel of 44°10° N. Lat., thence due east to the meridian of 59°00° W. Long., thence due south to the parallel of 39°00° N. Lat., thence due east to a point where the boundary between

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# Of Subarea 4 (cont\*d):

#### 4V. (cont\*d)

the Subareas 3 and 4 meets the parallel of  $39^{\circ}00^{\circ}$  N. Lat., thence along the boundary between Subareas 3 and 4 and a line continuing in a north-westerly direction to a point in  $47^{\circ}50^{\circ}$  N. Lat.,  $60^{\circ}00^{\circ}$  N. Long., thence along a rhumb line in a southerly direction to Cape North, N. S.

Division 4V should be divided into two portions: a northern and a southern portion, defined as follows:

4Vn. Northern portion - that portion of Division 4V lying north of parallel 45°40' North.

4Vs. Southern portion - that portion of Division 4V lying south of parallel 45°40' North.

- 4W. That portion of the subarea lying between the coast of Nova Scotia between Halifax and Fourchu and a line described as follows: Beginning at Fourchu, thence along a rhumb line in a southerly direction to a point in 45°40' N. Lat., 60°00' W. Long., thence due south along the meridian of 60°00' W. Long., to the parallel of 44°10' N. Lat., thence due east to the meridian of 59°00' W. Long., thence due south to the parallel of 39°00' N. Lat., thence due west to the meridian of 63°20' W. Long., thence due north to a point on that meridian in 44°20' N. Lat., thence along a rhumb line in a northwesterly direction to Halifax, N. S.
- 4X. That portion of the subarea lying between the boundary of Subareas 4 and 5 and the coasts of New Brunswick and Nova Scotia from the terminus of the boundary between New Brunswick and Maine to Halifax, and a line described as follows: Beginning at Halifax, thence along a rhumb line in a southeasterly direction to a point in 44°20° N. Lat., 63°20° W. Long., thence due south to the parallel of 39°00° N. Lat., thence due west to the meridian of 65°40° W. Long.

### Of Subarea 5:

- 5Y. That portion of the subarea lying between the coasts of Maine, New Hampshire, and Massachusetts from the border between Maine and New Brunswick to 70° W. longitude on Cape Cod (at approximately 42° north latitude) and a line described as follows: Beginning at a point on Cape Cod at 70° W. longitude (at approximately 42° north latitude) thence due north to latitude 42°20° north, thence due east to longitude 67°40° west at the boundary of Subareas 4 and 5, thence along the boundary to the boundary of Maine and New Brunswick.
- 5Z. That portion of the subarea lying to the south and east of Subdivision 5Y.

July, 1964