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EASTERN-WESTERN ARCTIC SEA ICE ANALYSIS.(U)
1979
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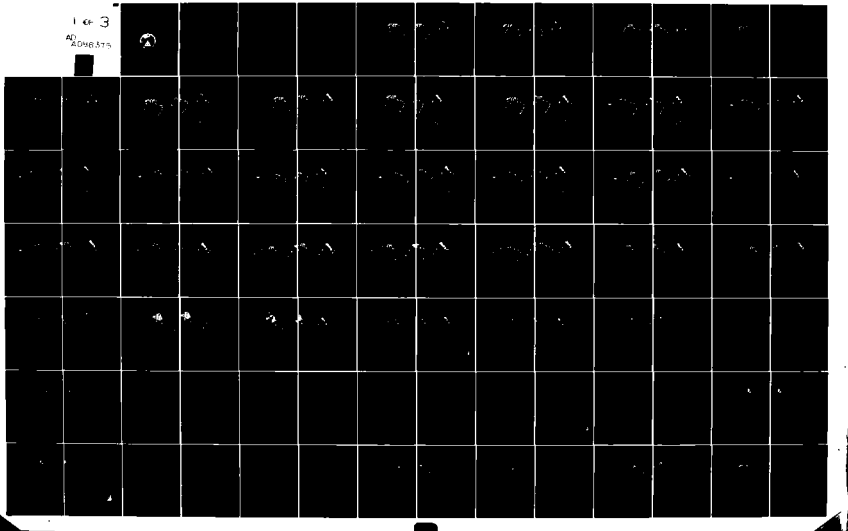

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EASTERN—WESTERN ARCTIC SEA ICE ANALYSIS.

ADA086375

"GLOBAL SERVICE"

NAVAL POLAR OCEANOGRAPHY CENTER SUITLAND

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FOREWORD

The U. S. Navy has a long and colorful history of polar exploration and currently is an active participant in the growing national activity in the Arctic and Antarctic. The strategic importance and increased demand for the natural resources of these areas have resulted in a greater requirement for environmental information. In 1976, the National Oceanic and Atmospheric Administration (NOAA) joined the Navy in forming a Joint Ice Center (JIC) to combine efforts and resources in sea ice analysis and forecasting.

Until a few years ago, reliable sea ice information in the polar regions was based on a relatively few shore station and ship reports augmented by limited aerial reconnaissance data. These data were further restricted mainly to the relatively small areas observed primarily during the ship operating seasons. The advent of high resolution satellite imagery combined with the ground truth of conventional observations has in recent years enabled a description of the polar ice fields on a semi-synoptic scale in both polar regions.

This publication is the sixth in a continuing yearly series of Arctic sea ice atlases prepared in the Joint Ice Center at the Naval Polar Oceanography Center, Suitland. The atlas contains weekly charts depicting Northern Hemisphere and Great Lakes ice conditions and extents. The information presented was prepared under operational time constraints principally from satellite imagery
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FOREWORD

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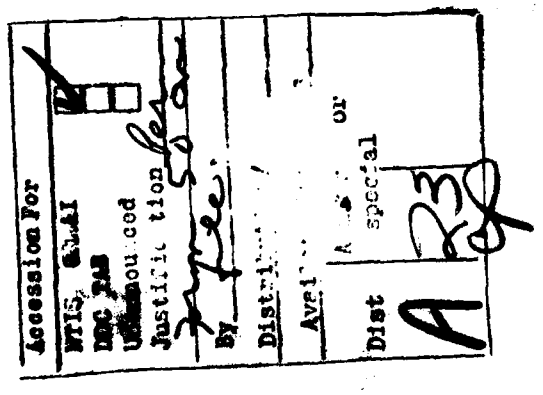
satellite imagery supplemented by conventional observations. The Great Lakes ice analyses are derived principally from information provided by the National Weather Service Forecast Office, Ann Arbor, Michigan. Table I located on the inside back cover summarizes satellite data availability for 1979.

The purpose of this atlas is to provide operators and researchers with reliable weekly hemispheric ice analyses. Satellite data limitations and other difficulties involved in manually synthesizing various forms of ice data have evolved the following analysis procedures:

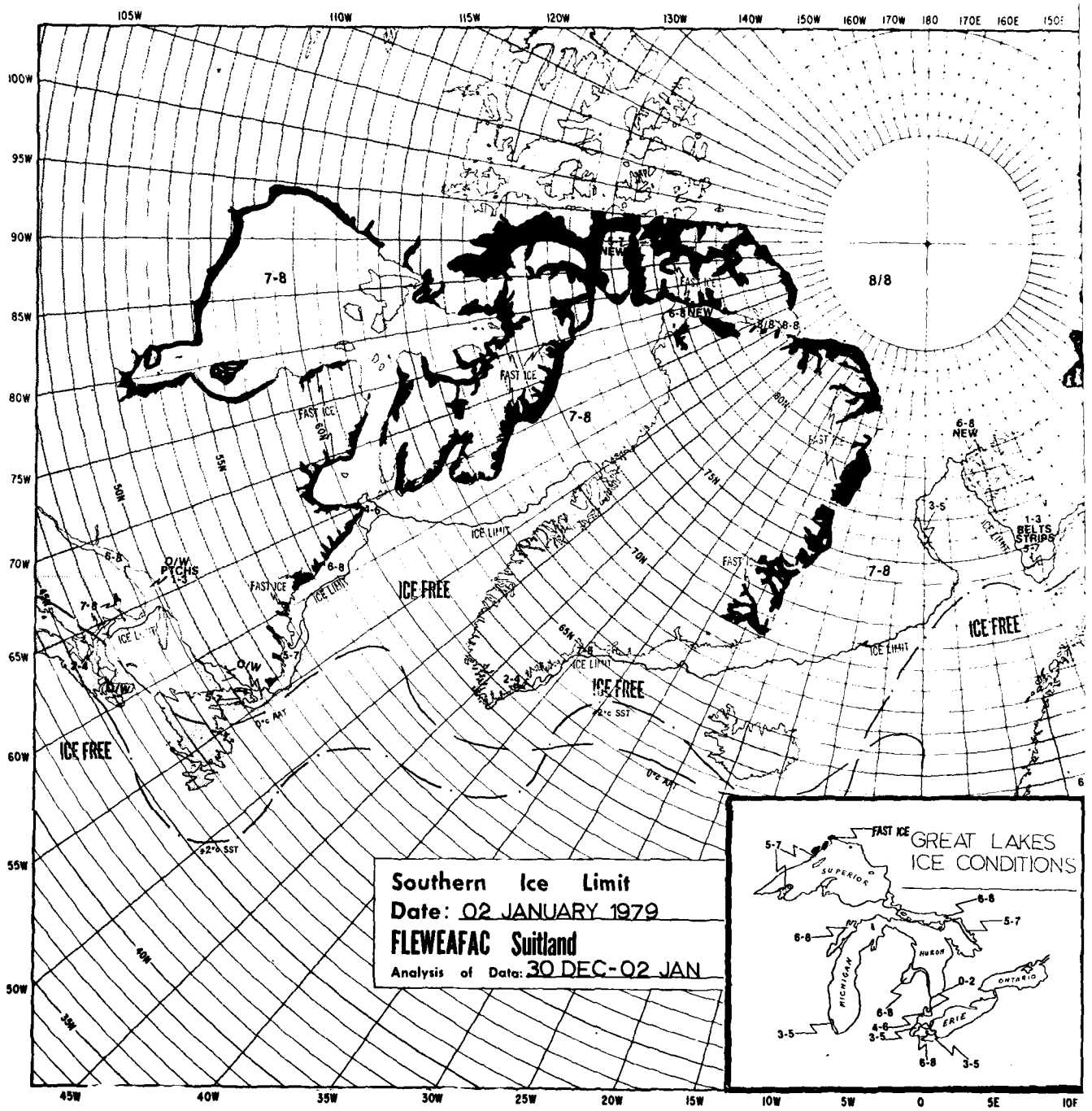
(a) Conventional shore station, ship, and aerial ice reconnaissance observations are plotted on base charts and evaluated for timeliness,

(b) Satellite data is analyzed for ice information content, with the most recent and highest resolution considered first. Synthesis of conventional with satellite data yields the final analysis, AND

(c) Where sufficient data is not available to define the sea ice limit, an estimated ice boundary is depicted. After one week of no data availability the ice edge position is based on analyzed theoretical ice drift data and other diagnostic aids. During subsequent weeks of no data availability the ice edges approach seasonal mean positions.



Naval Polar Oceanography Center
Navy Department
4301 Suitland Rd.,
Washington, DC 20390


Southern Ice Limit
Date: 02 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 30 DEC-02 JAN
GREAT LAKES
ICE CONDITIONS
ICE FREE
FAST ICE
ICE LIMIT
O/W PTCHS
BELTS STRIPS
SUPERIOR
MICHIGAN
HURON
ERIE
ONTARIO
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6-8 NEW
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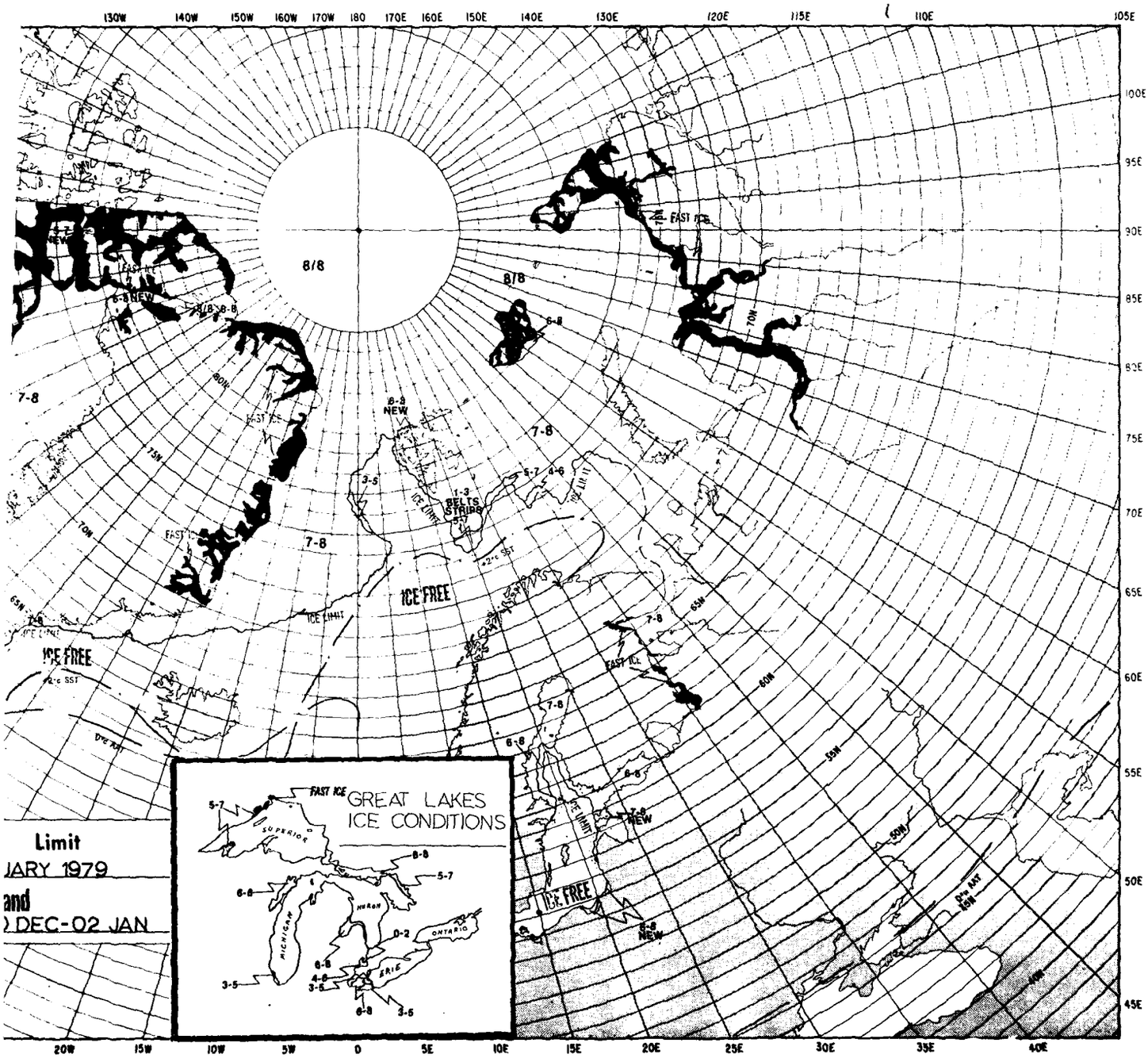

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ICE LIMIT
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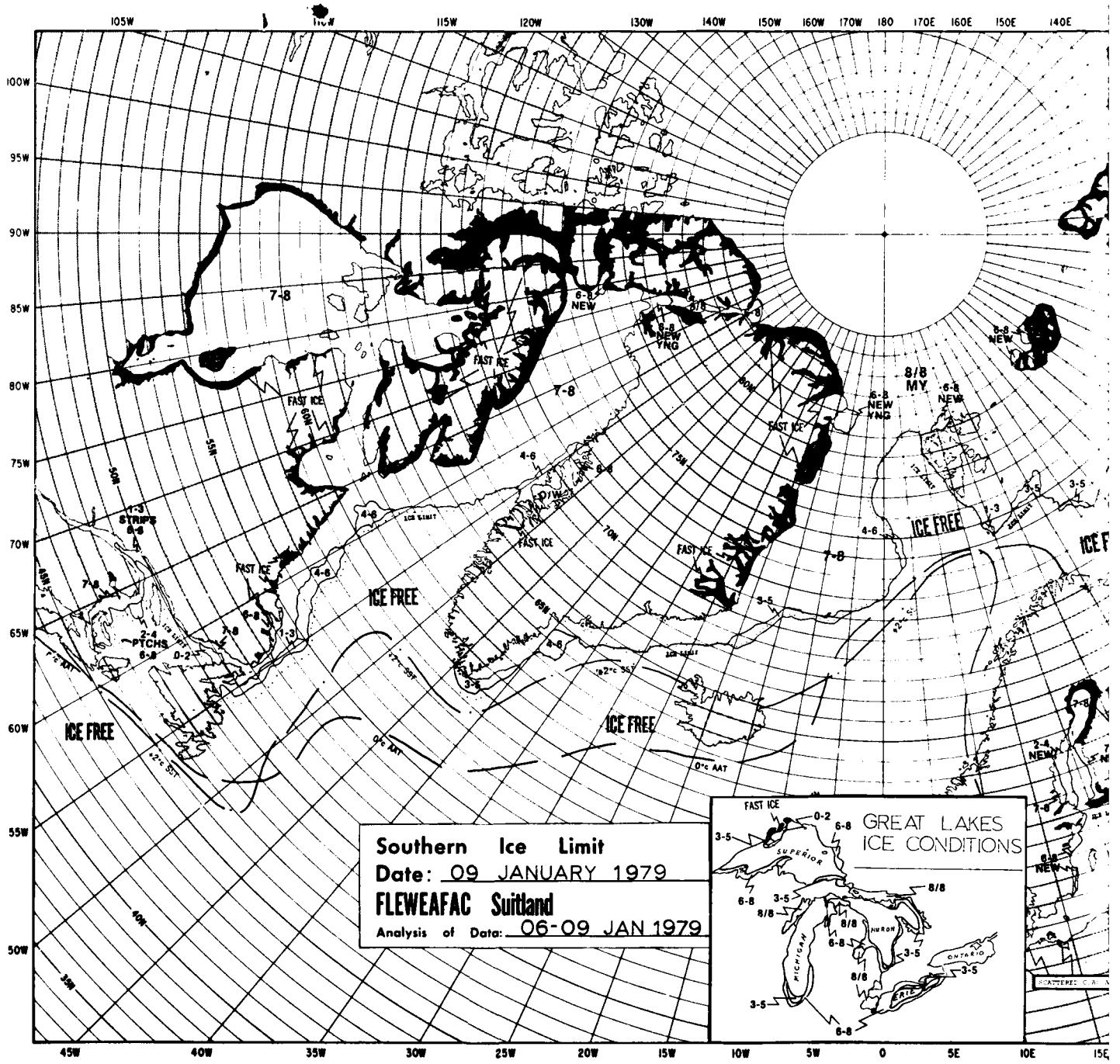
and
DEC-02 JAN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2-4 NEW
Southern Ice Limit
Date: 09 JANUARY 1979
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ONTARIO
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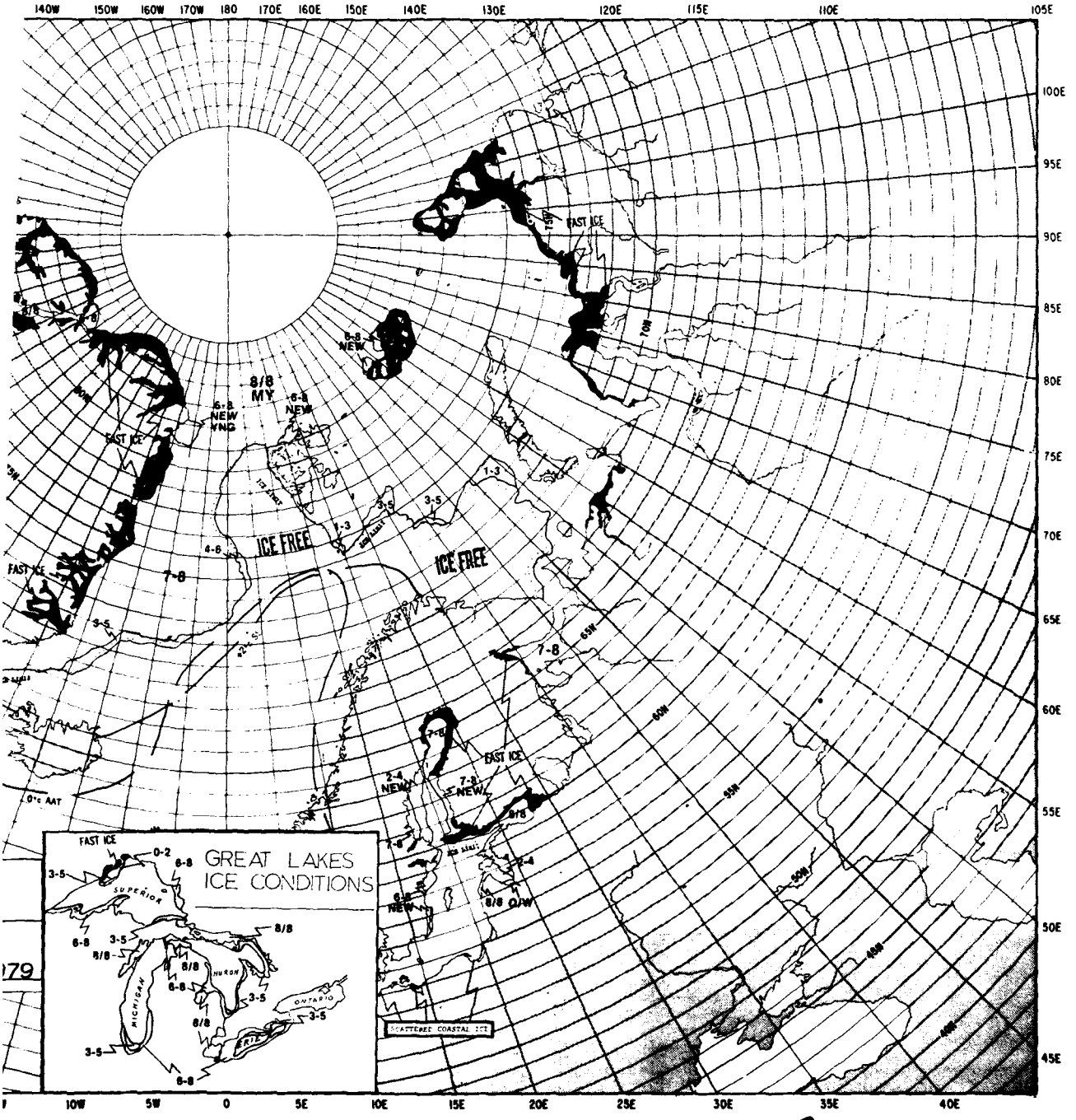
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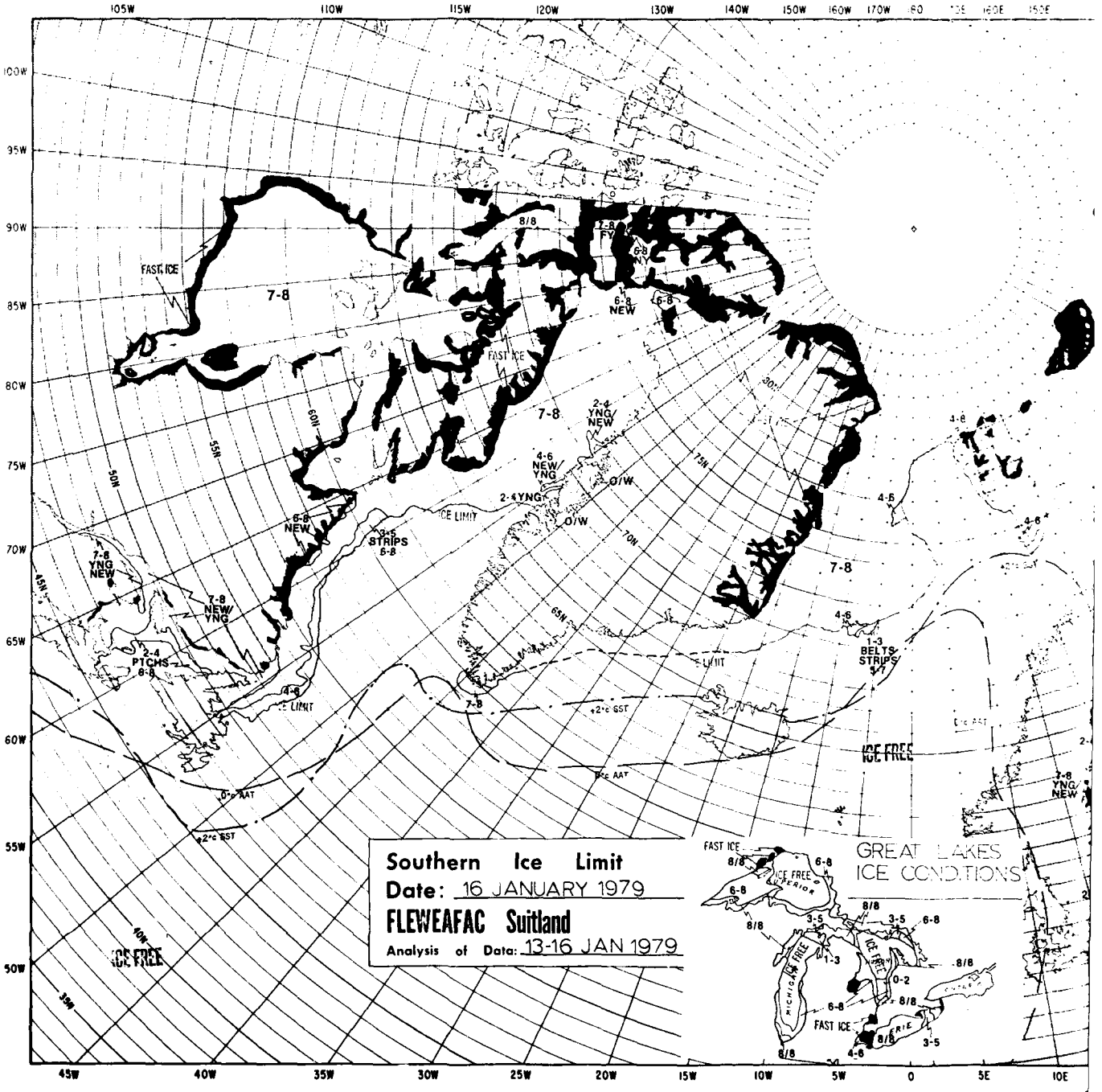
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ICE LIMIT
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3-5 STRIPS 6-8
7-8 YNG NEW
7-8 NEW/ YNG
2-4 PTCHS 6-8
4-6
ICE LIMIT
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4-6
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4-6
1-3 BELTS/ STRIPS 3-7
ICE LIMIT
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2-4 YNG/ NEW
Southern Ice Limit
Date: 16 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 13-16 JAN 1979
GREAT LAKES ICE CONDITIONS
FAST ICE
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6-8
ICE FREE SUPERIOR
6-8
8/8
8/8
3-5
3-5
6-8
ICE FREE
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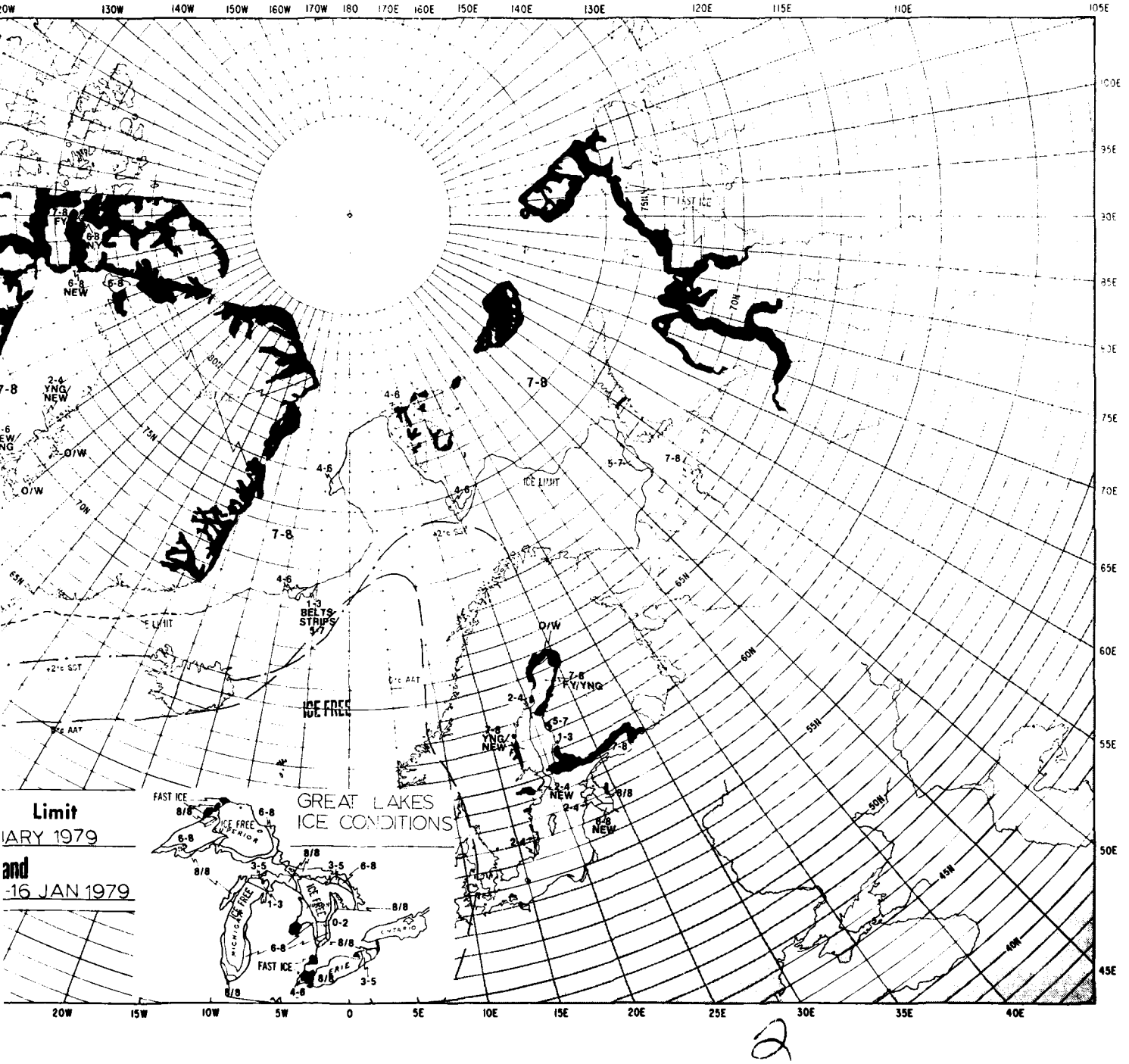

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ICE LIMIT
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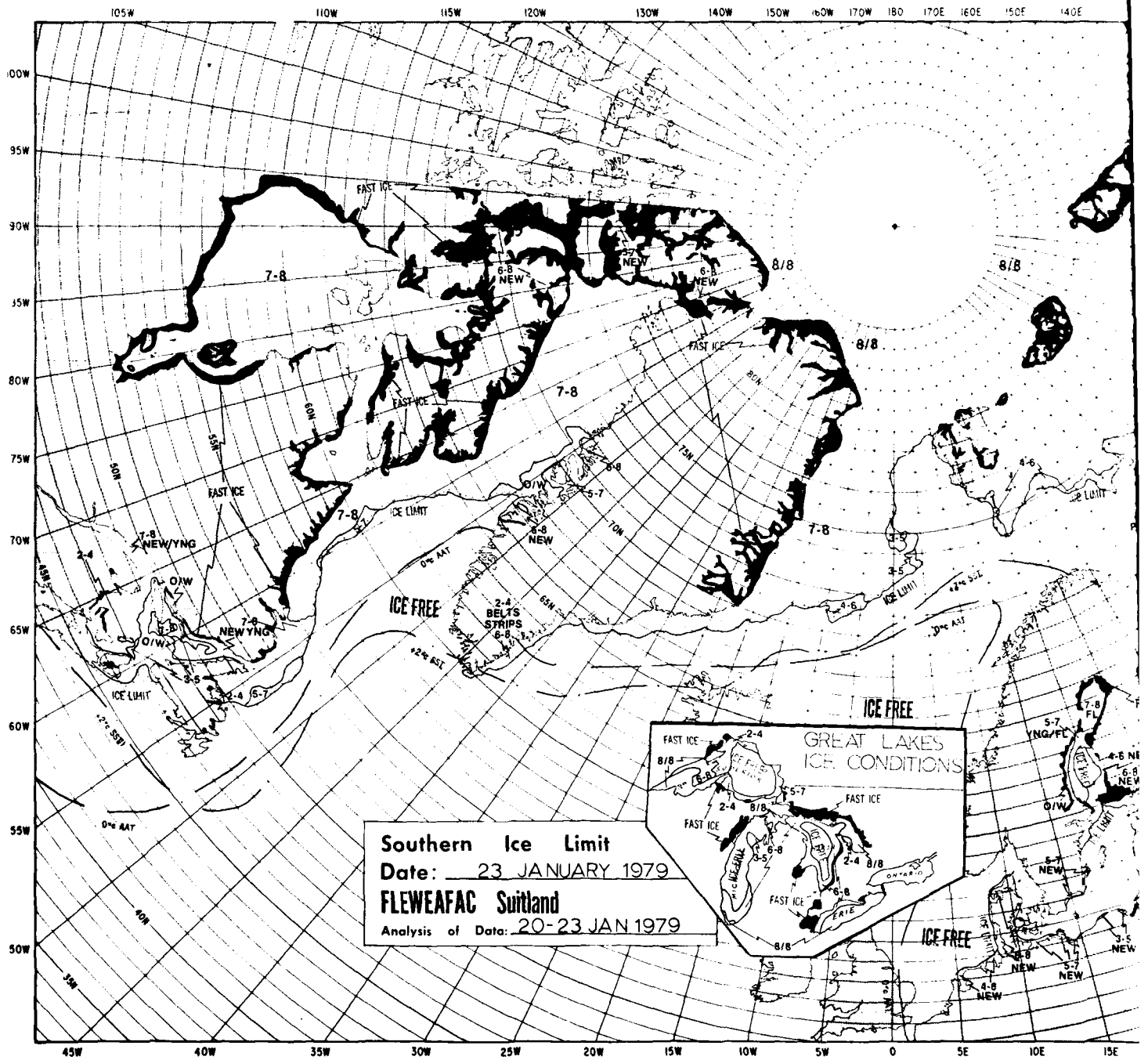
FY/YNG
YNG/NEW
NEW
O/W

2


Southern Ice Limit
Date: 23 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 20-23 JAN 1979
GREAT LAKES ICE CONDITIONS
ICE FREE
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ICE LIMIT
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8/8
6-8 NEW
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7-8 NEW/YNG
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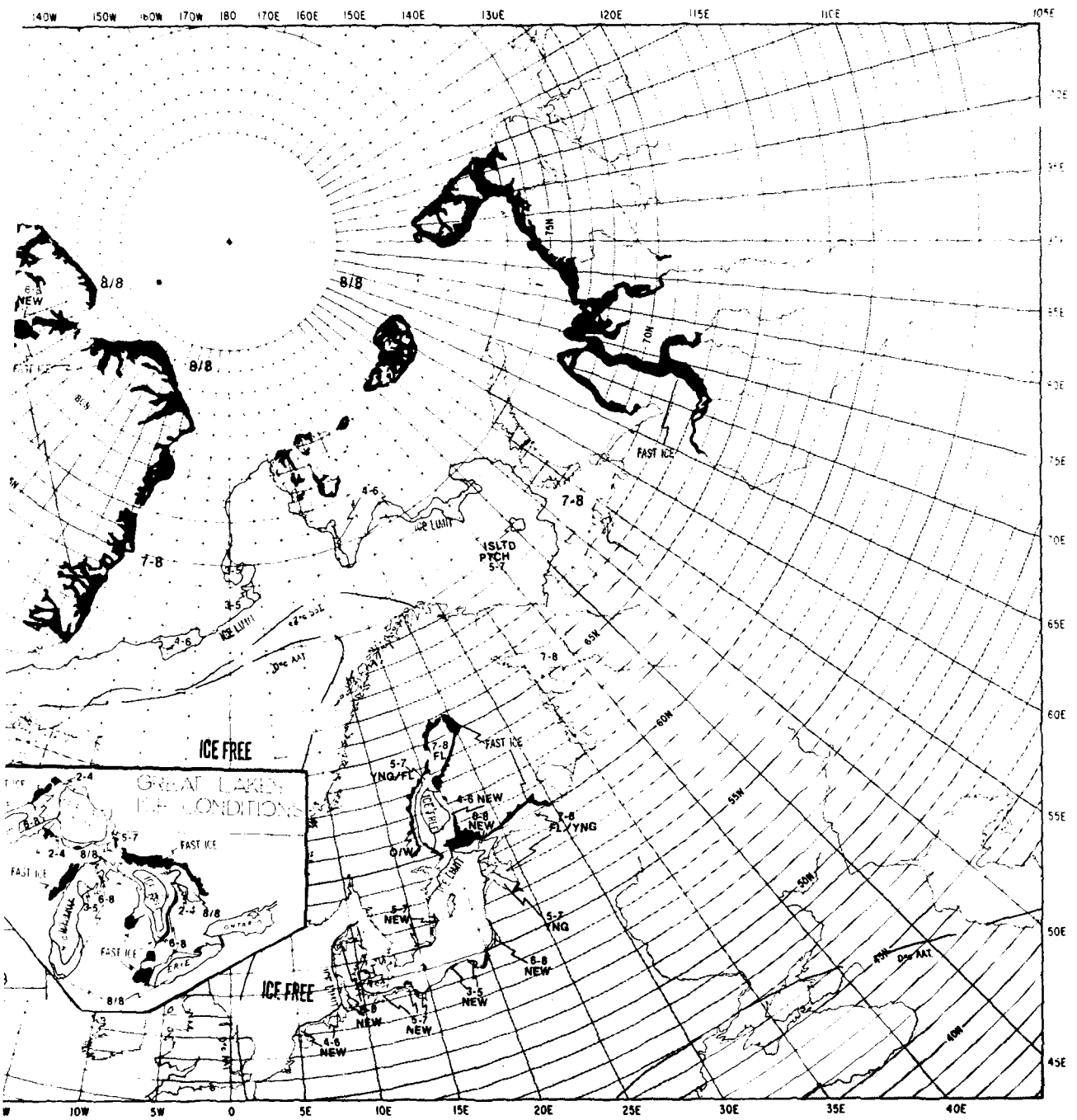

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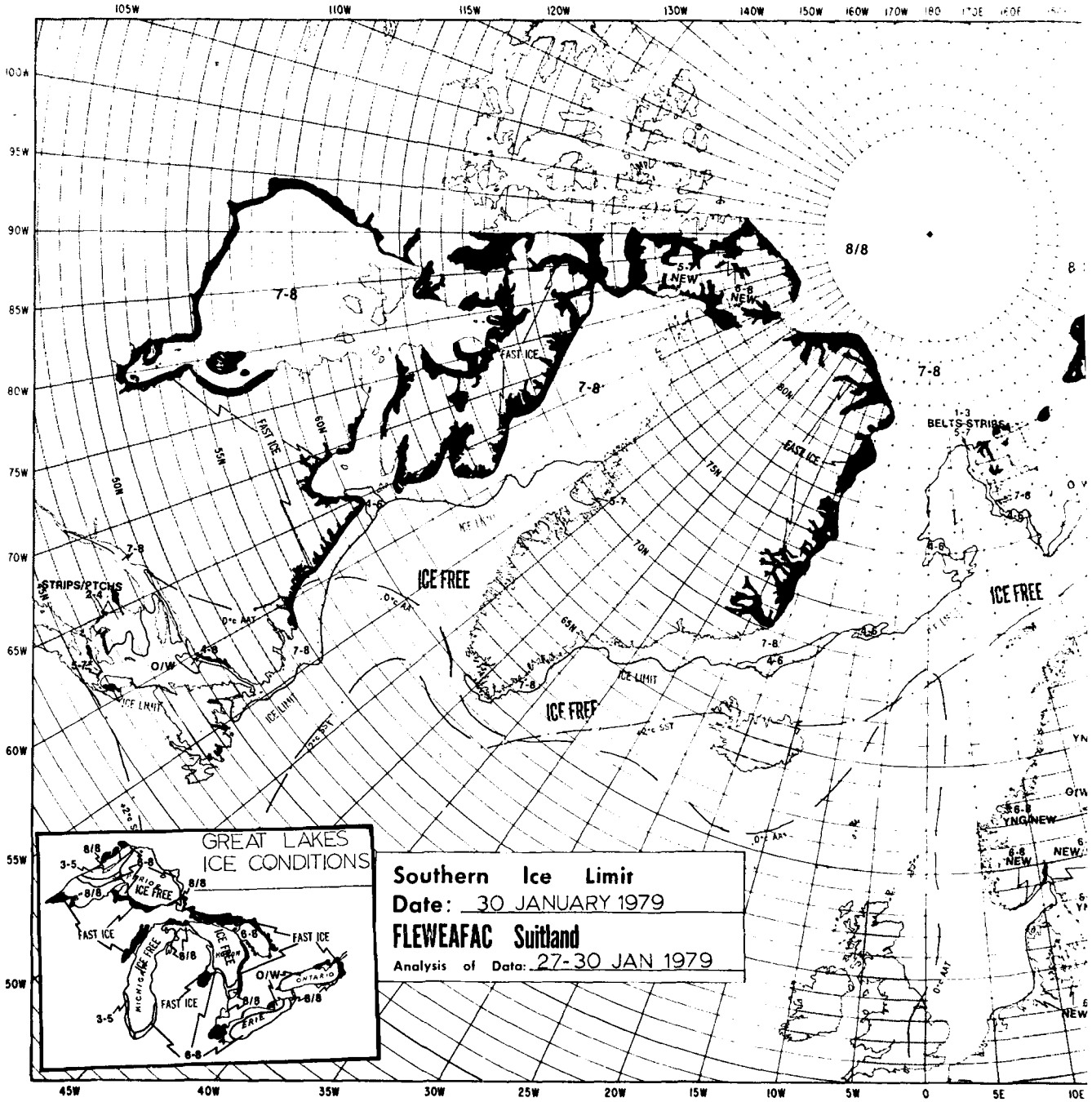

Southern Ice Limit
Date: 30 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 27-30 JAN 1979
GREAT LAKES
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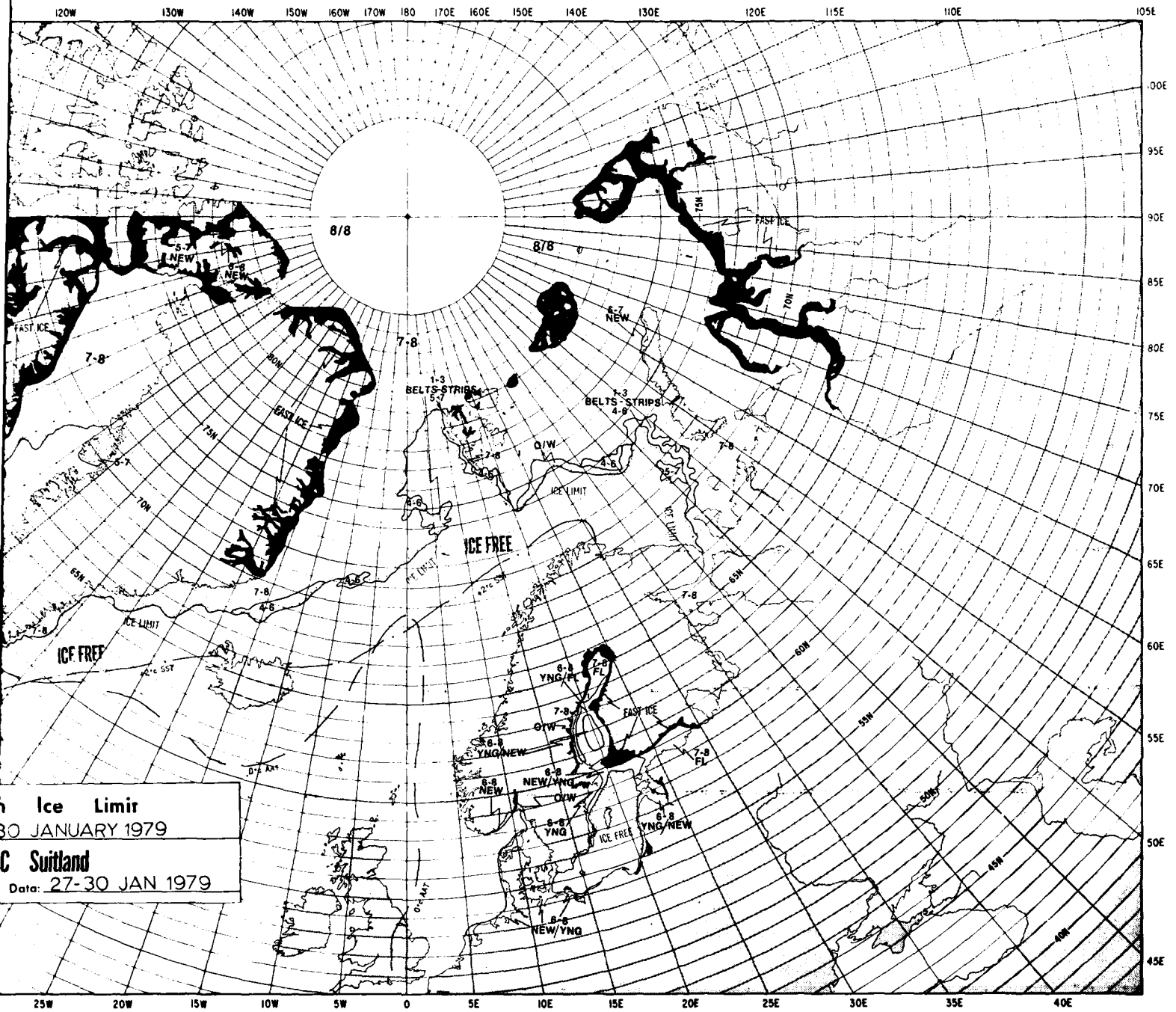
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Data: 27-30 JAN 1979

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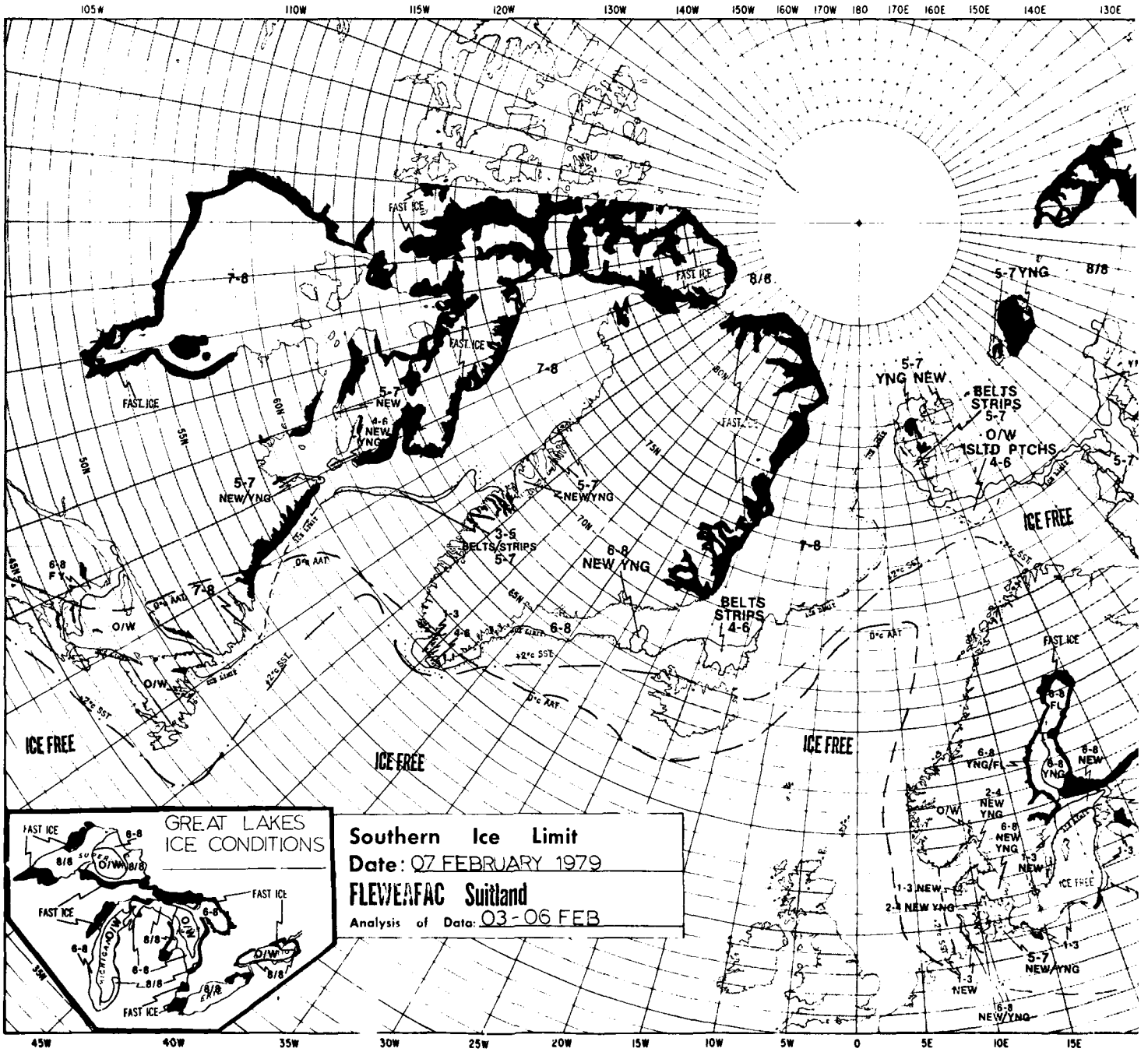
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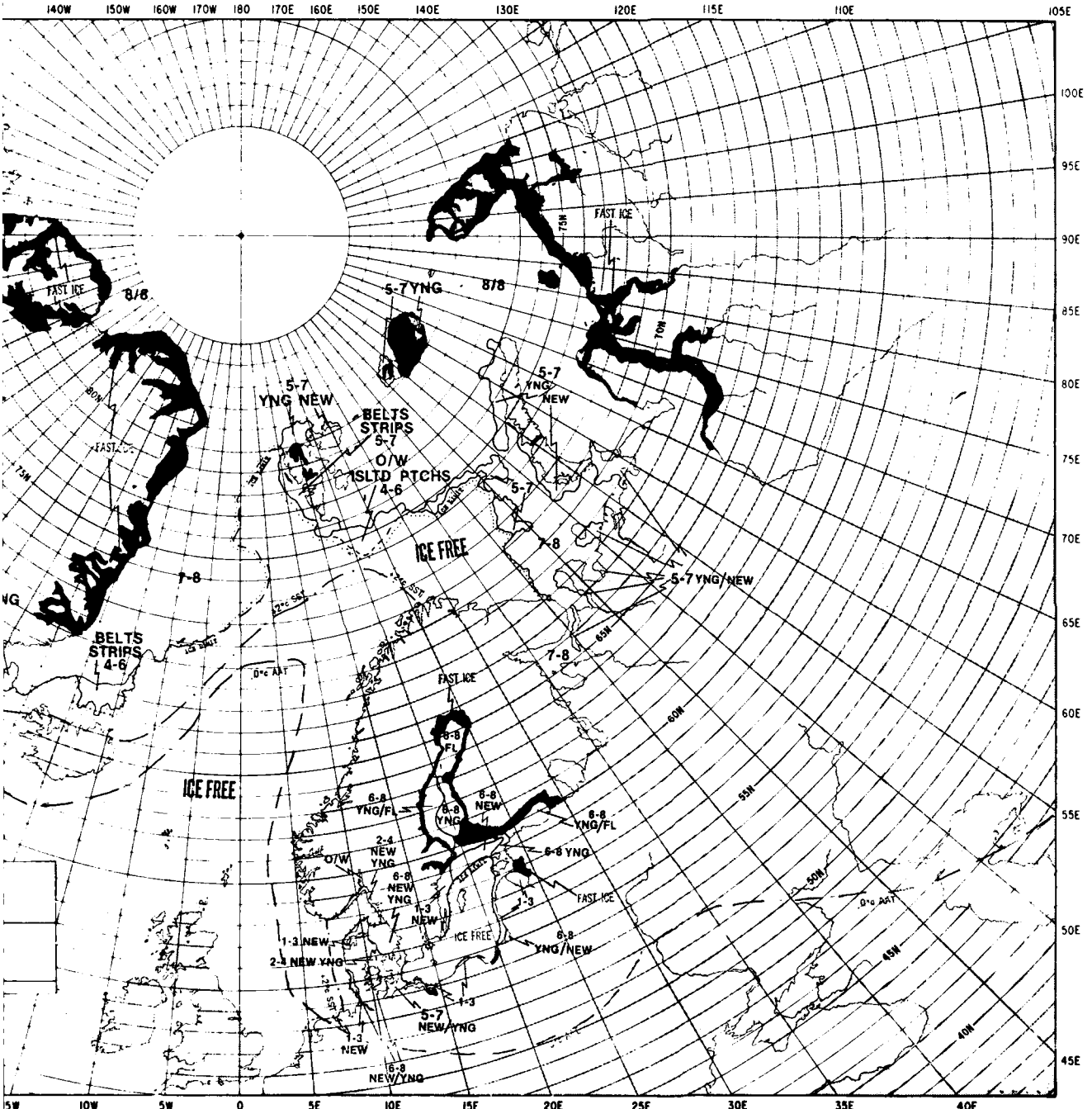
Southern Ice Limit
Date: 07 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 03-06 FEB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BELTS STRIPS 5-7
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ICE FREE
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BELTS STRIPS 4-6
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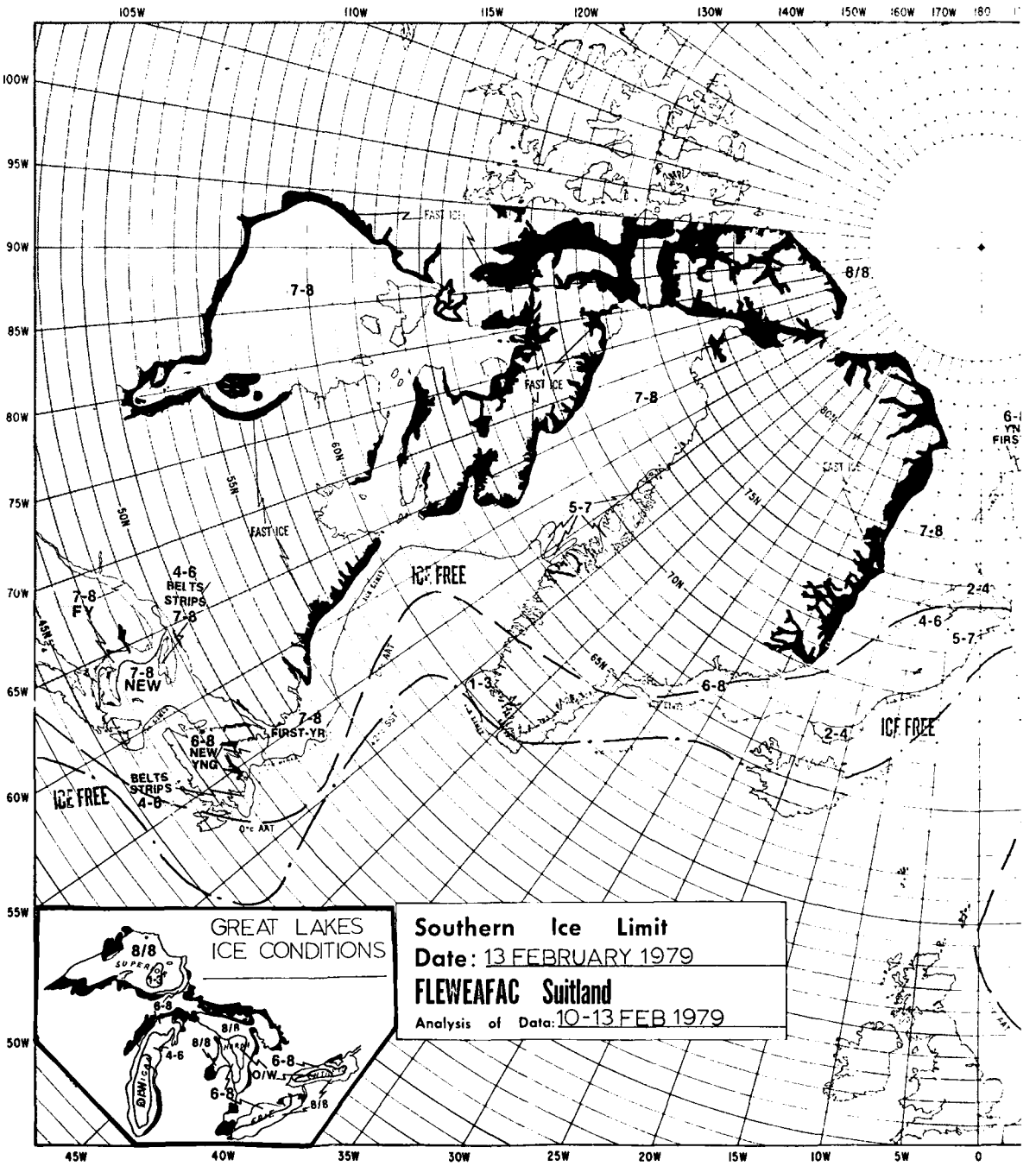
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GREAT LAKES
ICE CONDITIONS
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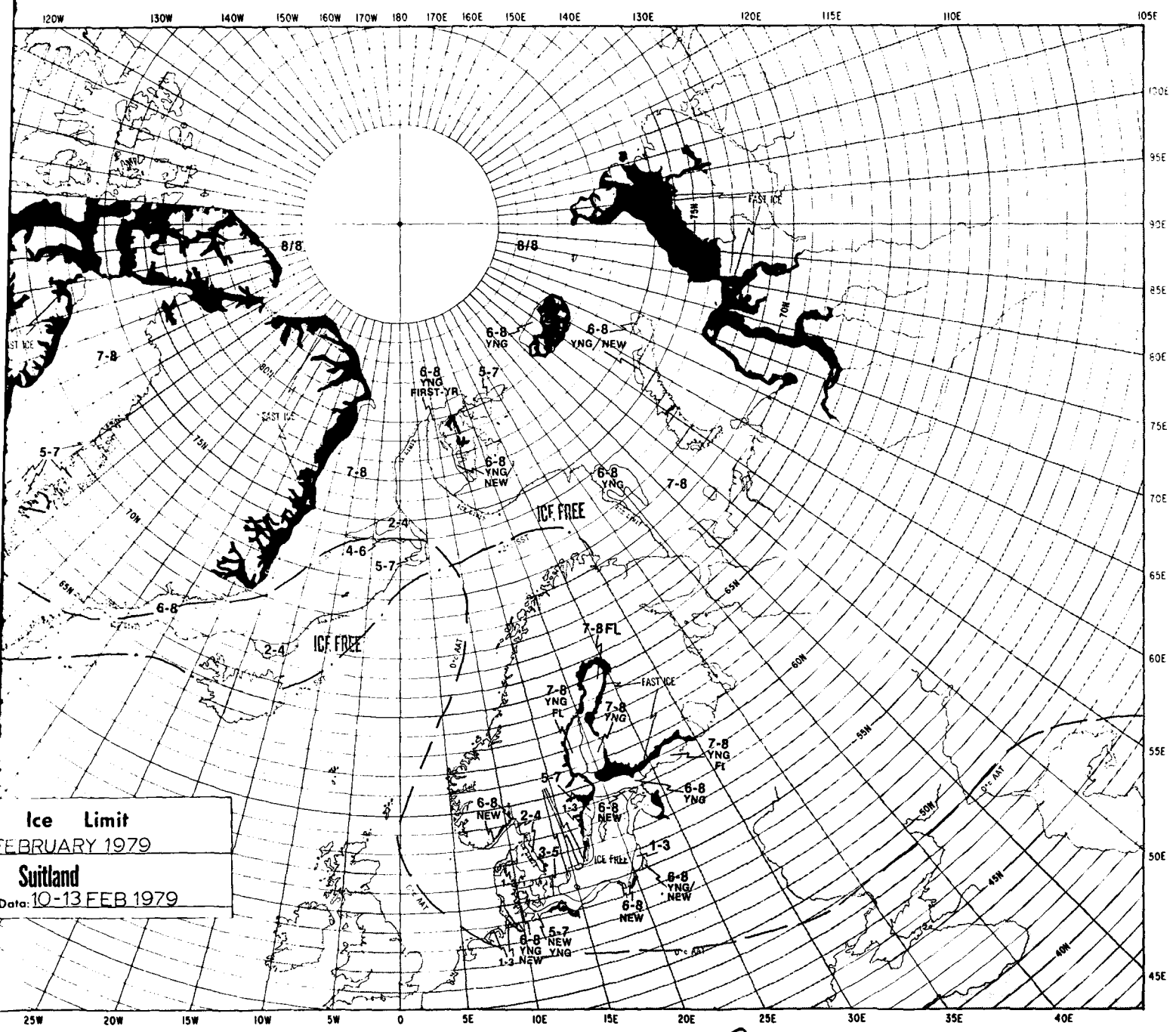
Southern Ice Limit
Date: 13 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 10-13 FEB 1979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6-8 YNG FIRST-YR
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6-8 YNG/ NEW
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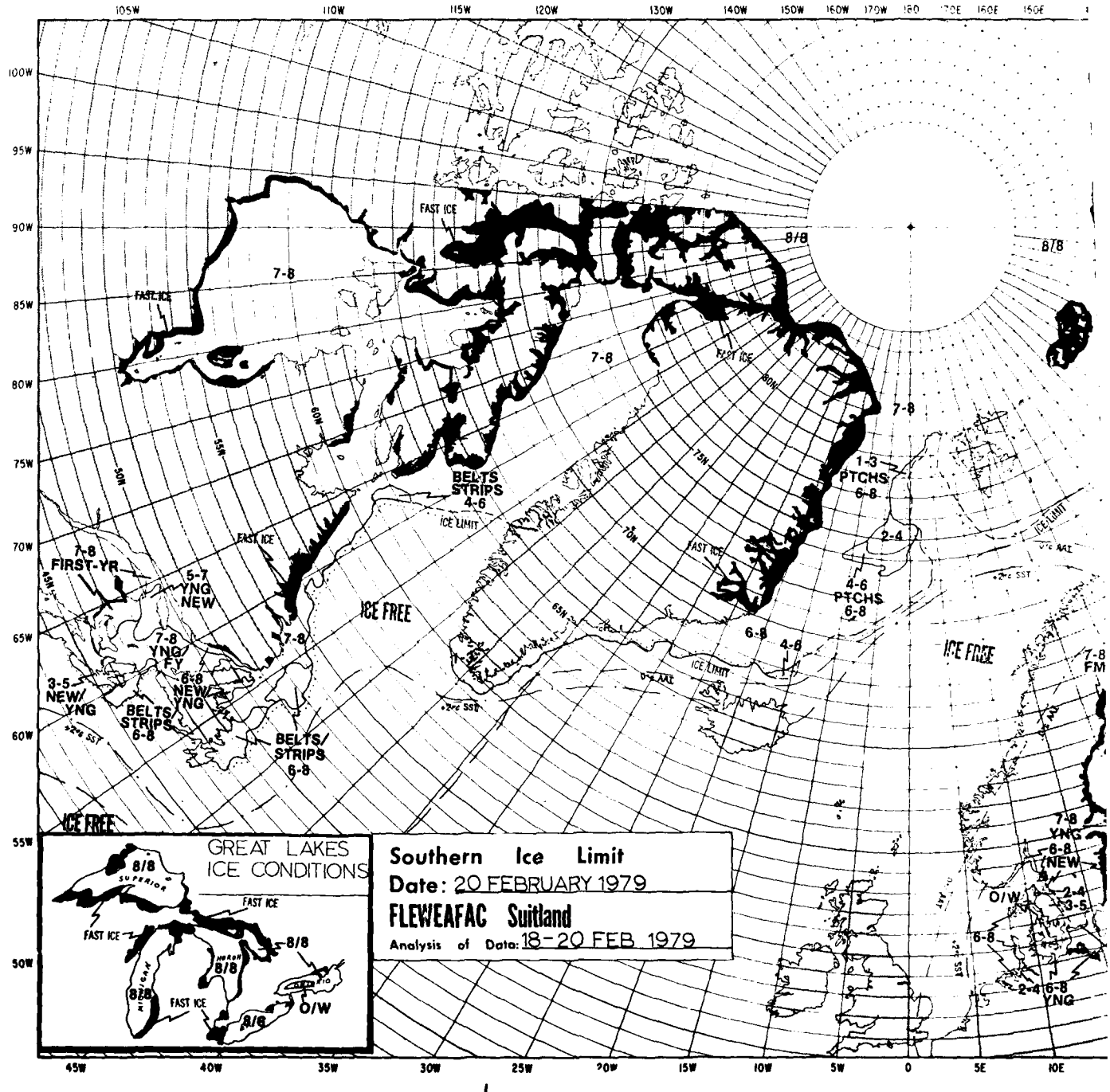

Southern Ice Limit
Date: 20 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 18-20 FEB 1979
GREAT LAKES ICE CONDITIONS
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ICE LIMIT
BELTS STRIPS 4-6
7-8 FIRST-YR
5-7 YNG NEW
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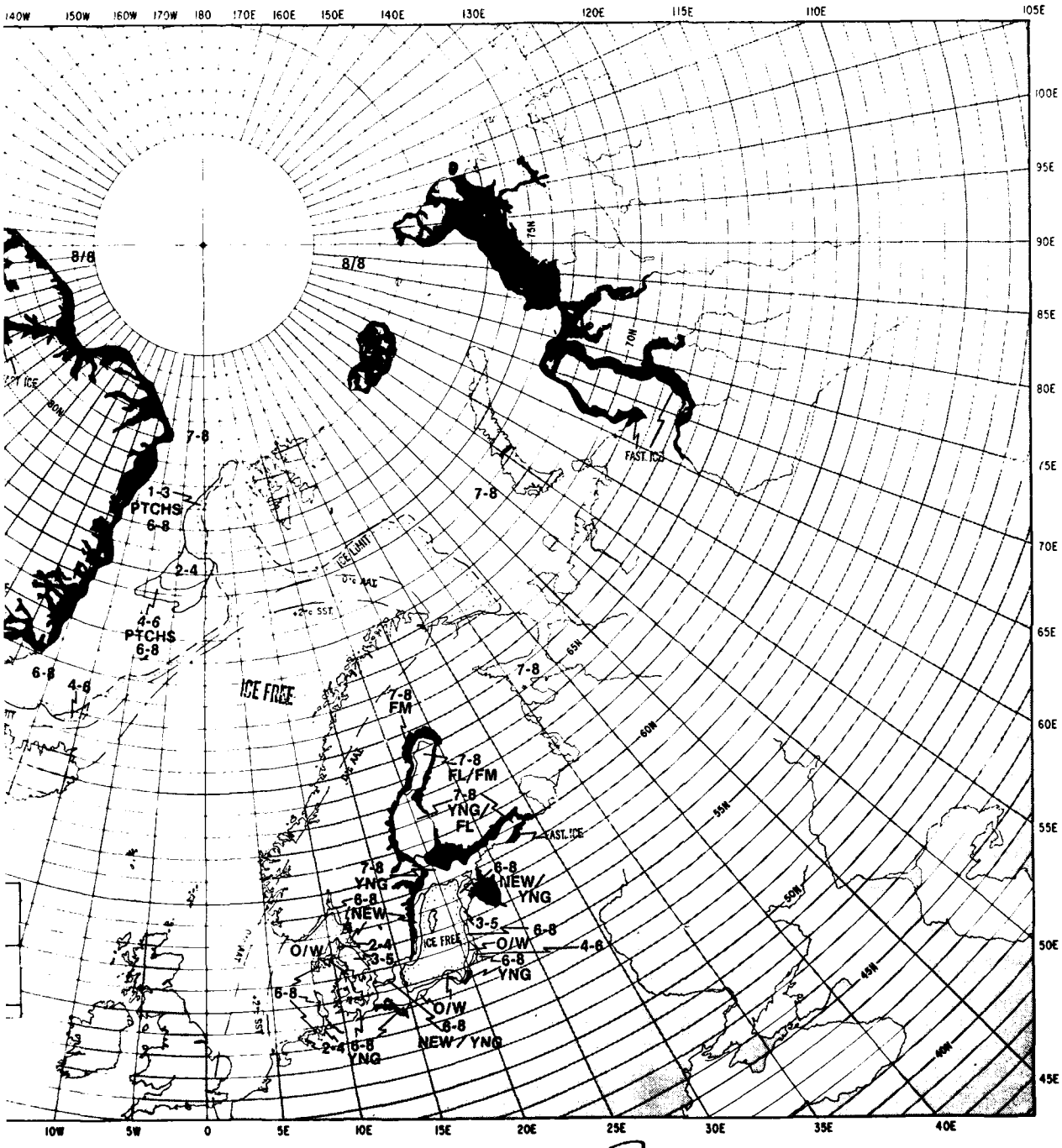
7-8
O/W



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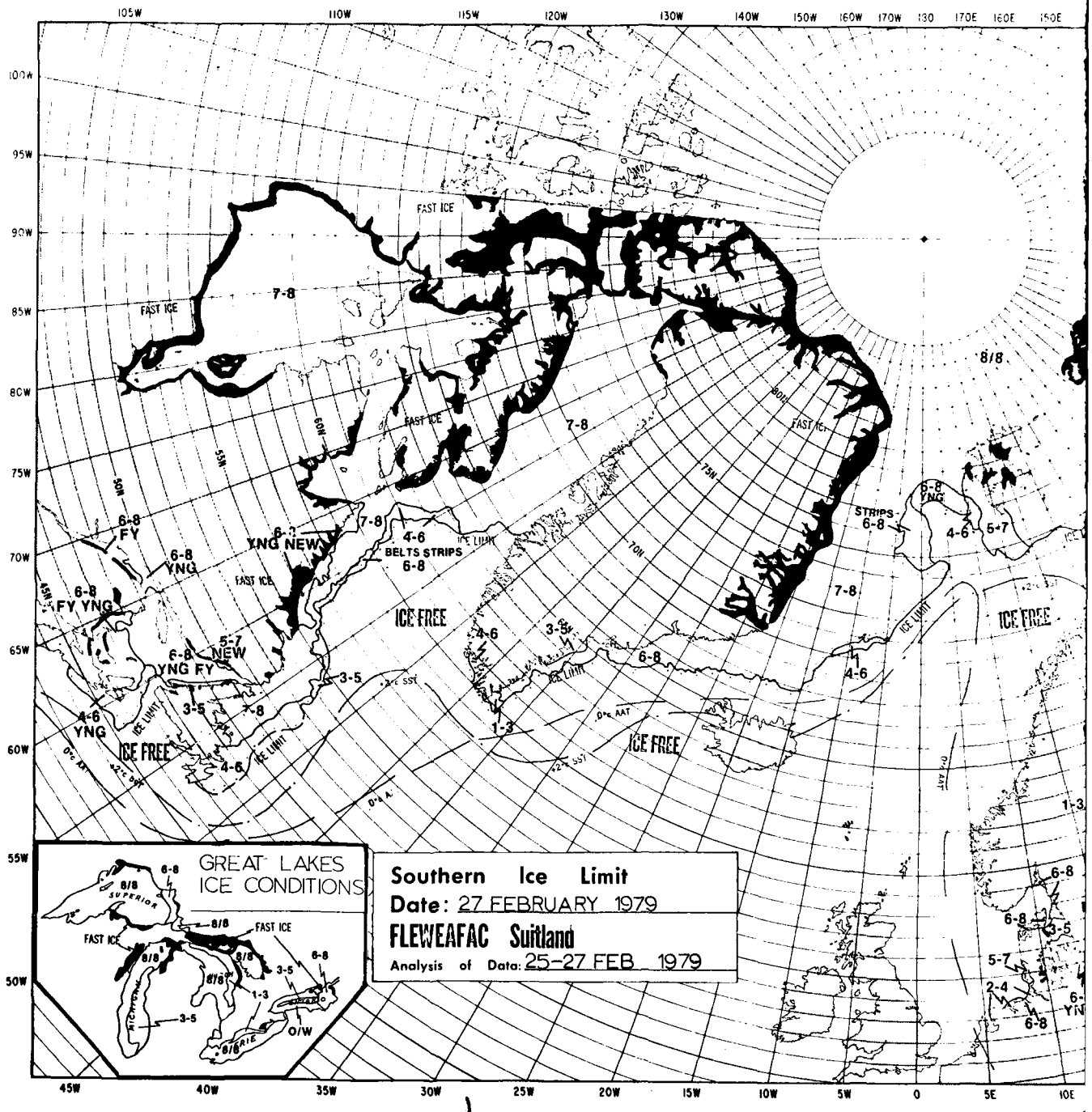
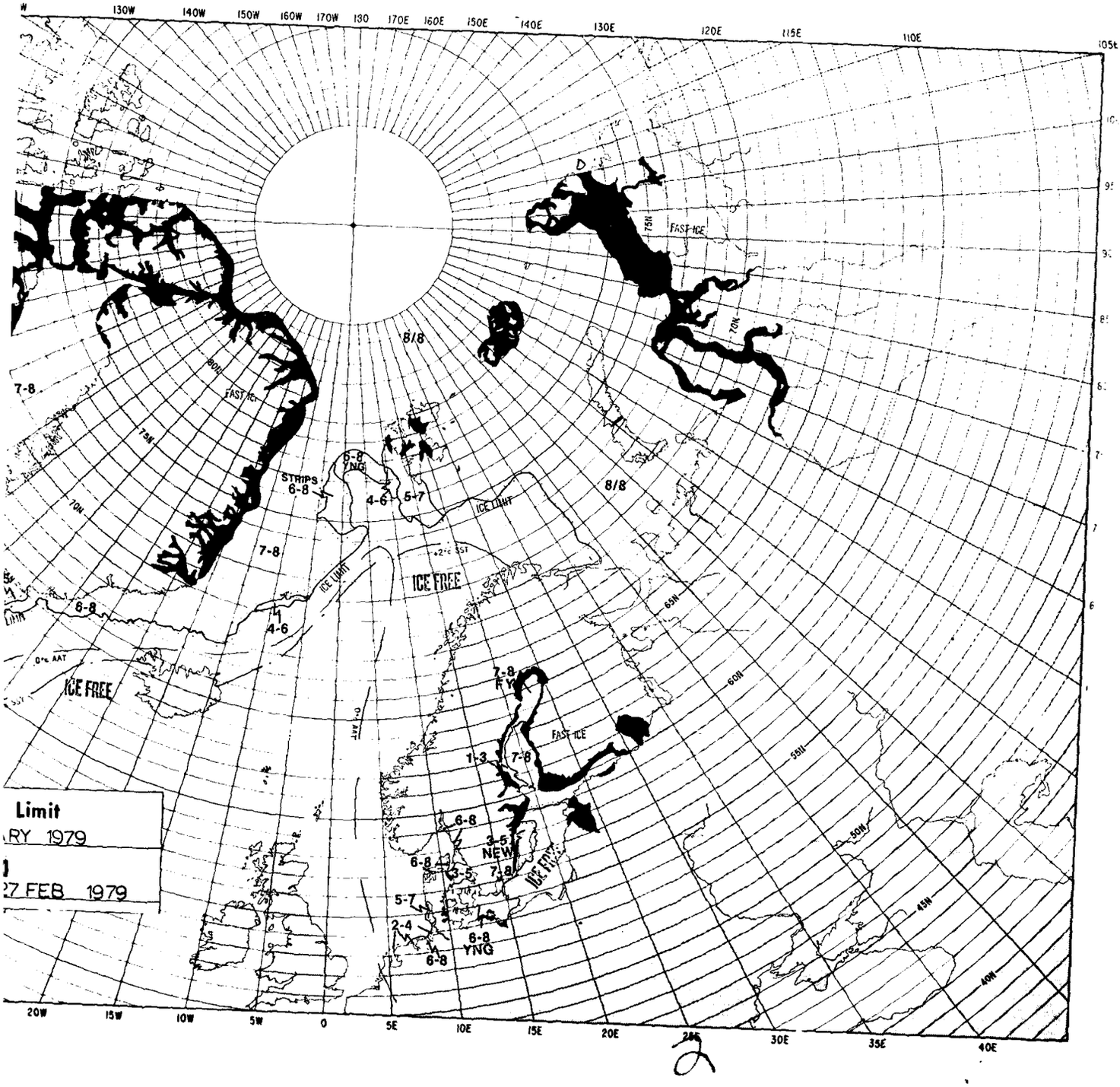


Southern Ice Limit
Date: 27 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 25-27 FEB 1979
GREAT LAKES ICE CONDITIONS
FAST ICE
ICE FREE
ICE LIMIT
BELTS STRIPS
STRIPS
SUPERIOR
MICHIGAN
ERIE
O/W



130W
140W
150W
160W
170W
130
170E
160E
150E
140E
130E
120E
115E
110E
105E
FAST ICE
75N
70N
8/8
7-8
STRIPS
6-8
6-8
YNG
4-6
5-7
ICE LIMIT
ICE FREE
+2°c SST
0°c AAT
65N
60N
55N
50N
45N
40N
7-8
FY
1-3
3-5
NEW
2-4
6-8
YNG
Limit
RY 1979
27 FEB 1979
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15W
10W
5W
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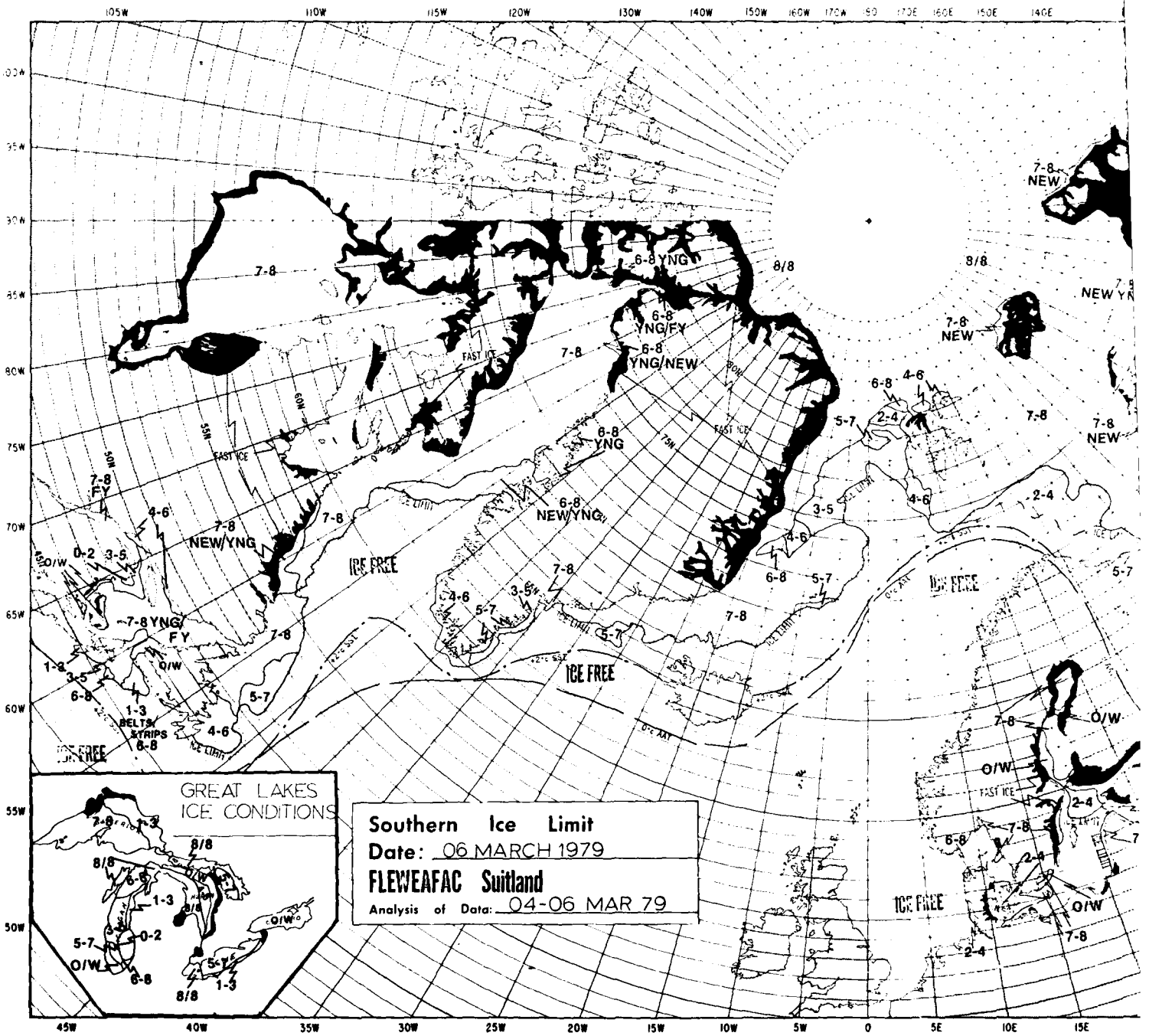
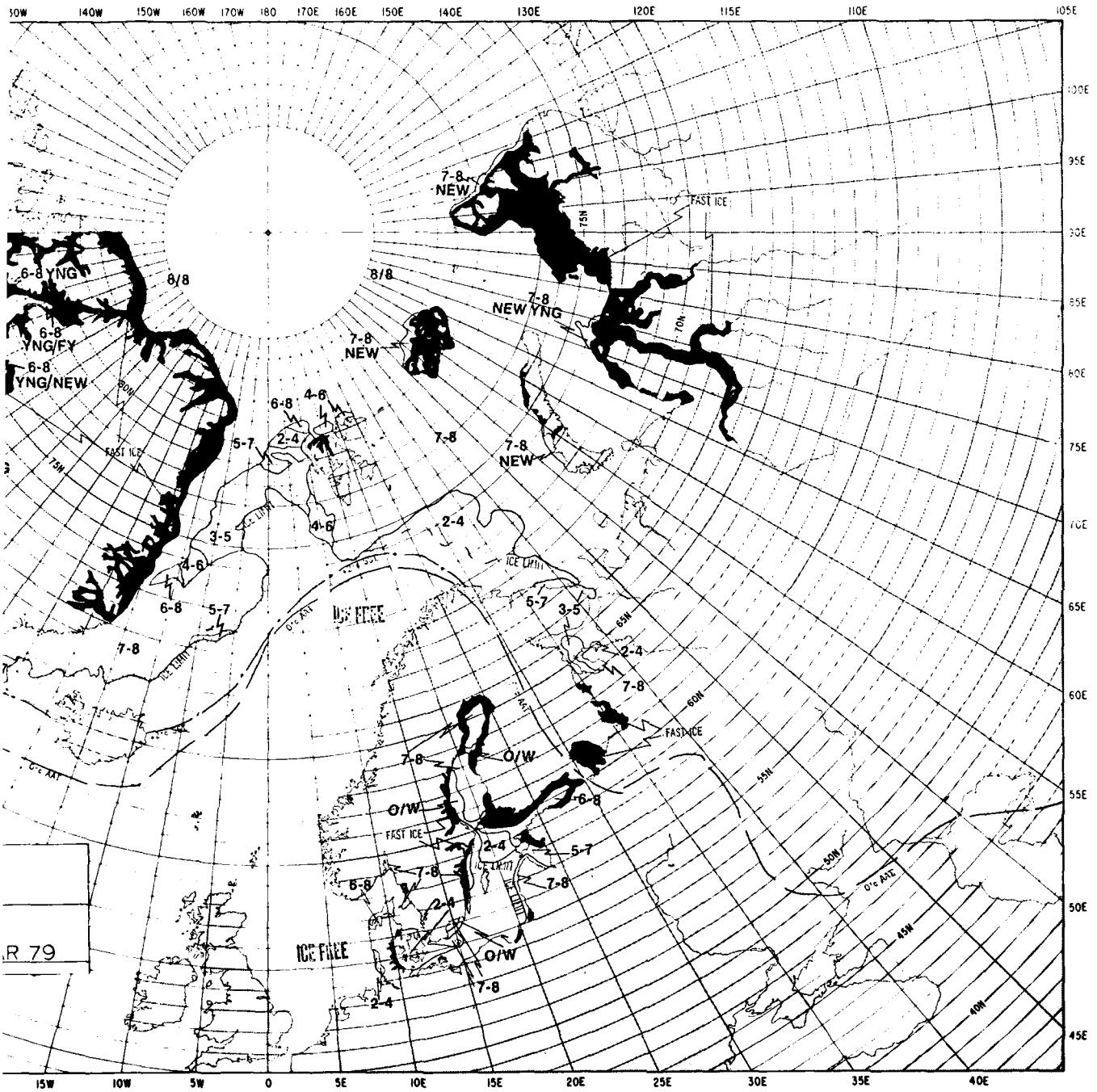
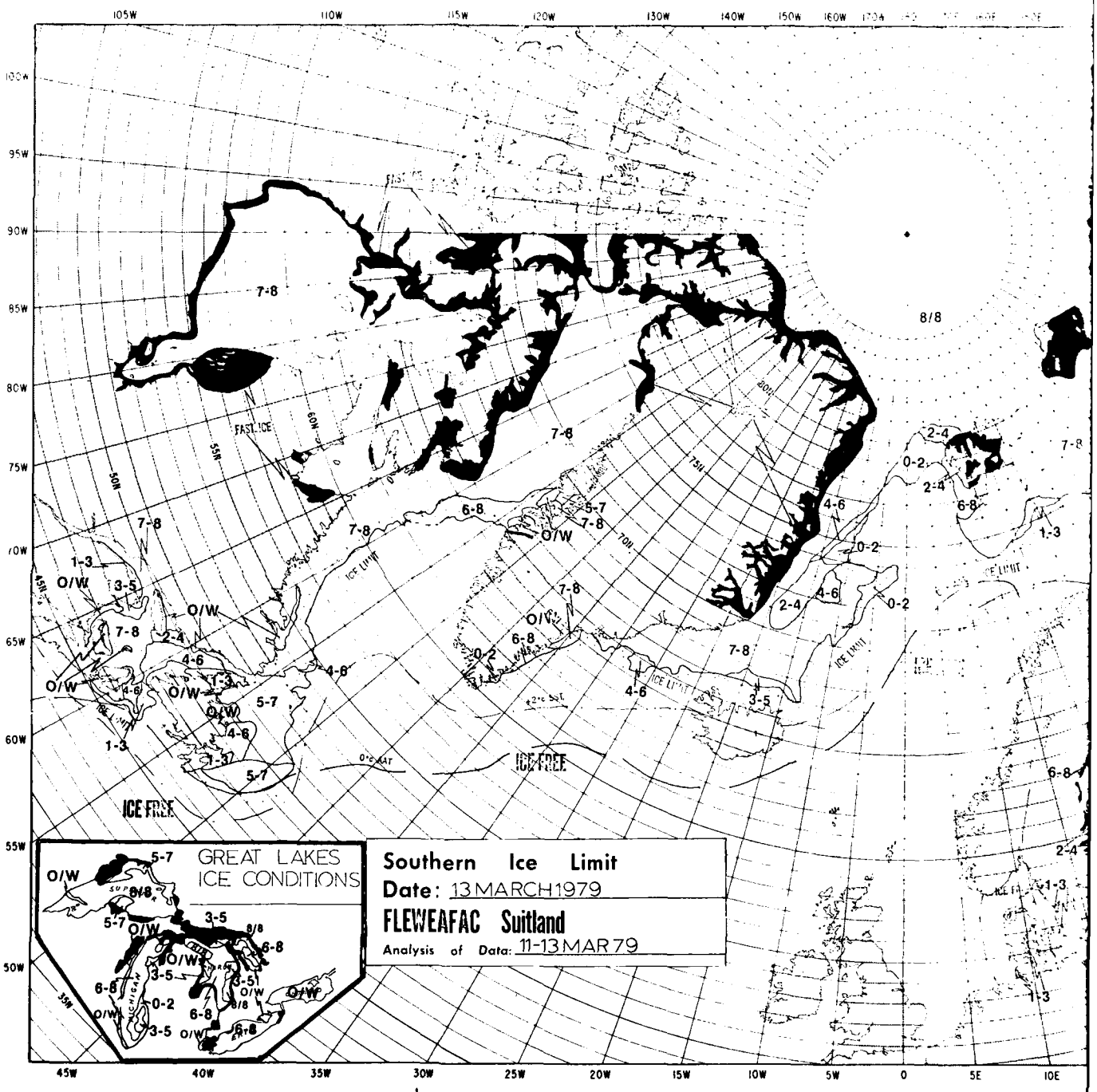
15E
20E
25E
30E
35E
40E


GREAT LAKES
ICE CONDITIONS
Southern Ice Limit
Date: 06 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 04-06 MAR 79
ICE FREE
FAST ICE
7-8 NEW
6-8 YNG
6-8 YNG/FY
6-8 YNG/NEW
7-8 NEW/YNG
7-8 YNG/FY
7-8 FY
1-3 BELTS & STRIPS
8/8
O/W



7-8
NEW
FAST ICE
6-8 YNG
8/8
8/8
7-8
NEW YNG
6-8
YNG/FY
6-8
YNG/NEW
7-8
NEW
6-8
4-6
5-7
2-4
7-8
7-8
NEW
FAST ICE
3-5
4-6
2-4
ICE LIMIT
4-6
6-8
5-7
ICE FREE
5-7
3-5
7-8
2-4
7-8
FAST ICE
7-8
O/W
O/W
6-8
FAST ICE
2-4
5-7
7-8
7-8
6-8
2-4
ICE FREE
O/W
7-8
2-4
R 79

2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110W
115W
120W
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95W
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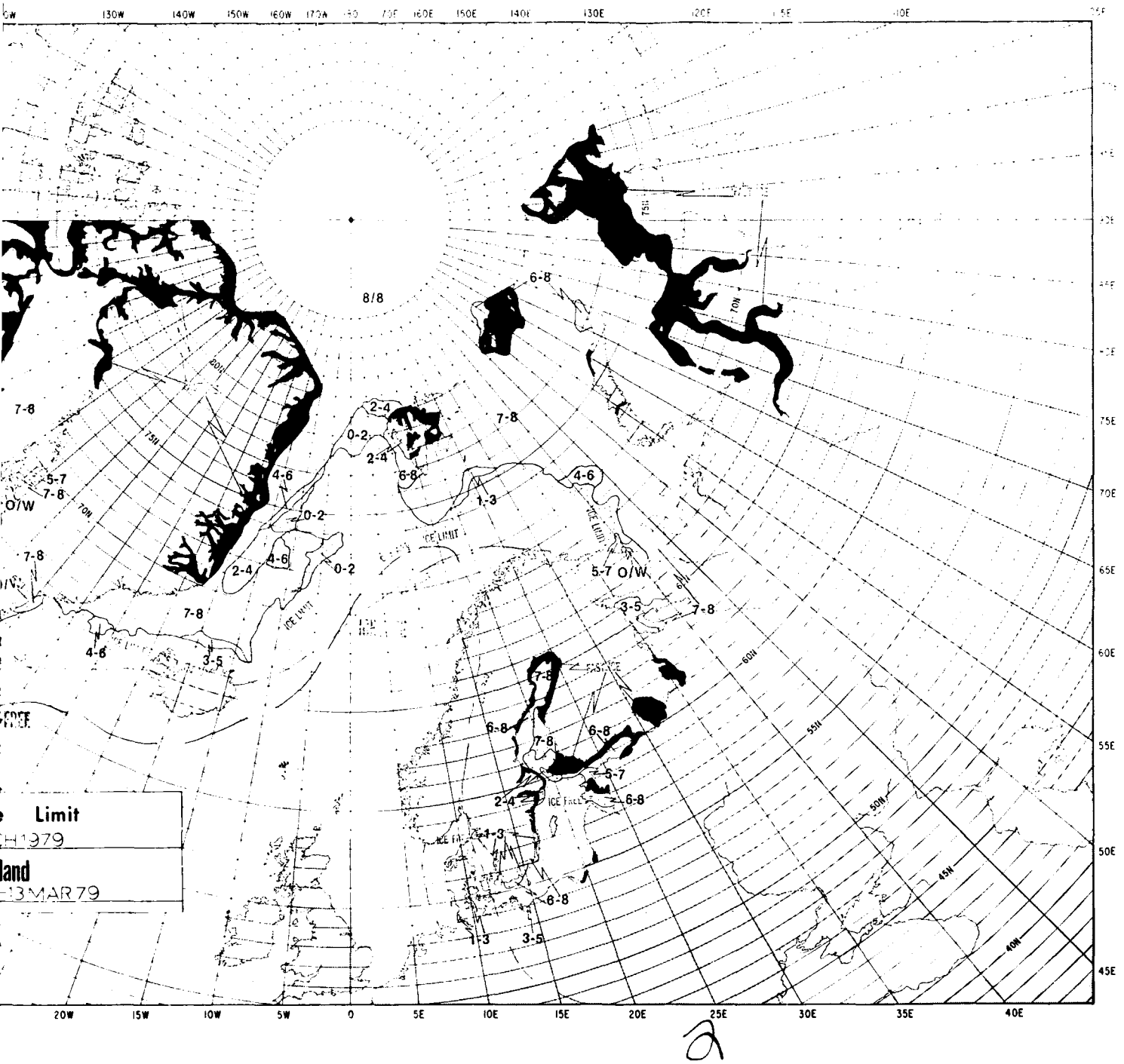
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
7-8
8/8
FAST ICE
ICE LIMIT
ICE FREE
O/W
1-3
3-5
4-6
5-7
6-8
0-2
2-4
GREAT LAKES
ICE CONDITIONS
Southern Ice Limit
Date: 13 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 11-13 MAR 79



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140W
150W
160W
170W
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140E
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110E
75E
70E
65E
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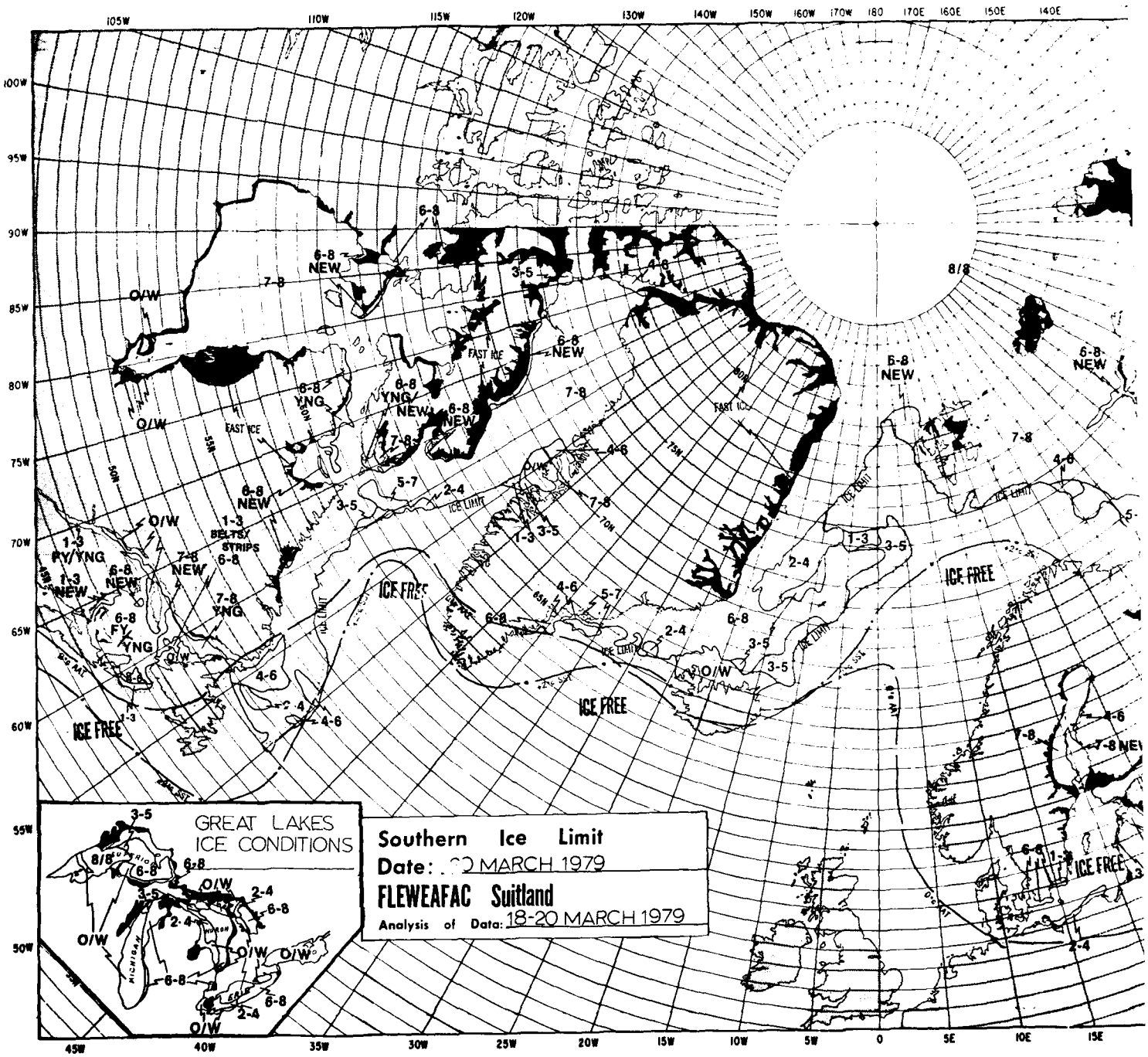
55E
50E
45E
20W
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
8/8
6-8
7-8
2-4
0-2
4-6
5-7
O/W
1-3
3-5
ICE LIMIT
FAST ICE
ICE FREE
Limit
H1979
land
13MAR79


Southern Ice Limit
Date: [illegible] MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 18-20 MARCH 1979
GREAT LAKES
ICE CONDITIONS
ICE FREE
ICE LIMIT
FAST ICE
BELTS/STRIPS
O/W
NEW
YNG
FY/YNG
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
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50W
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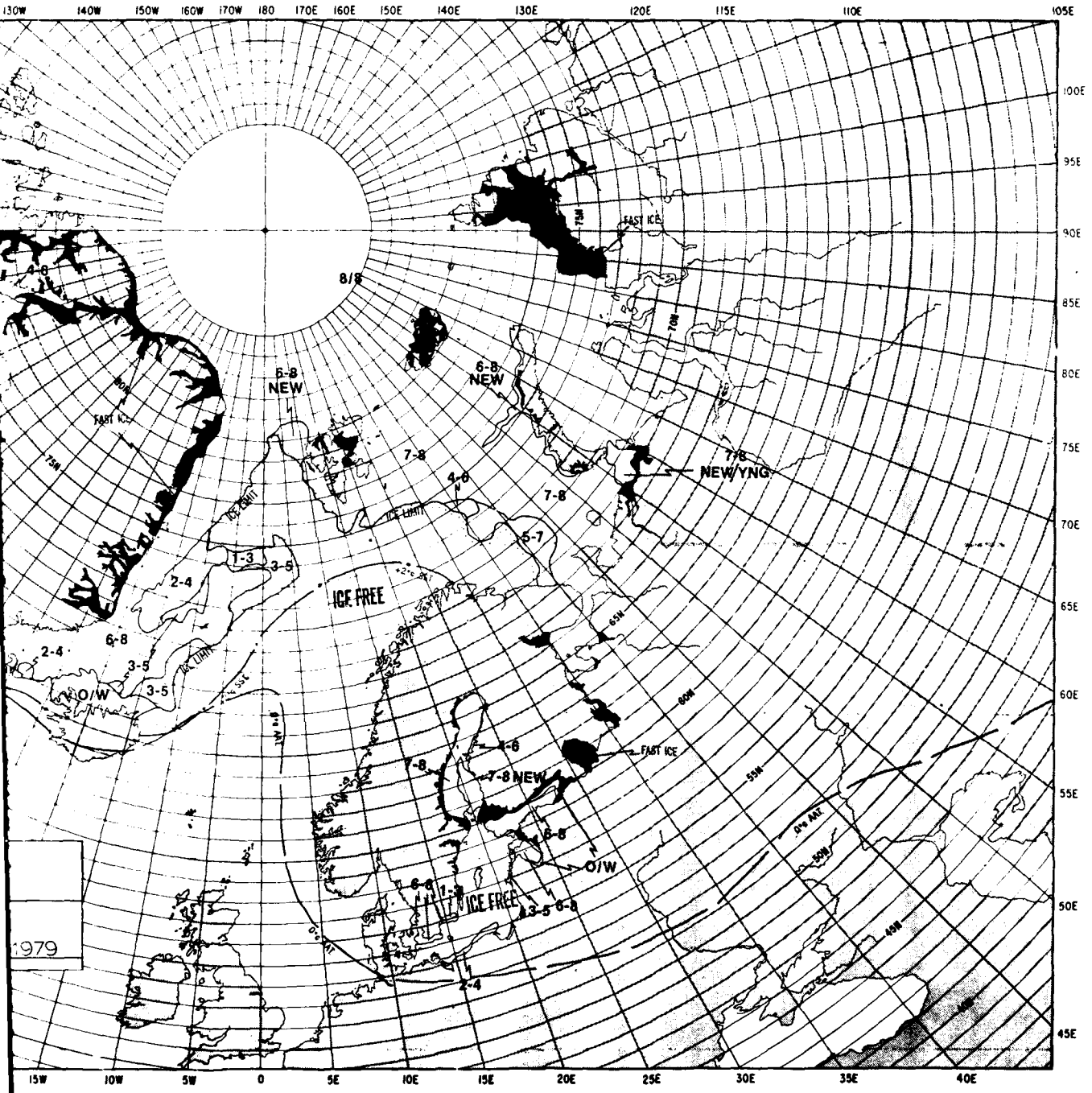
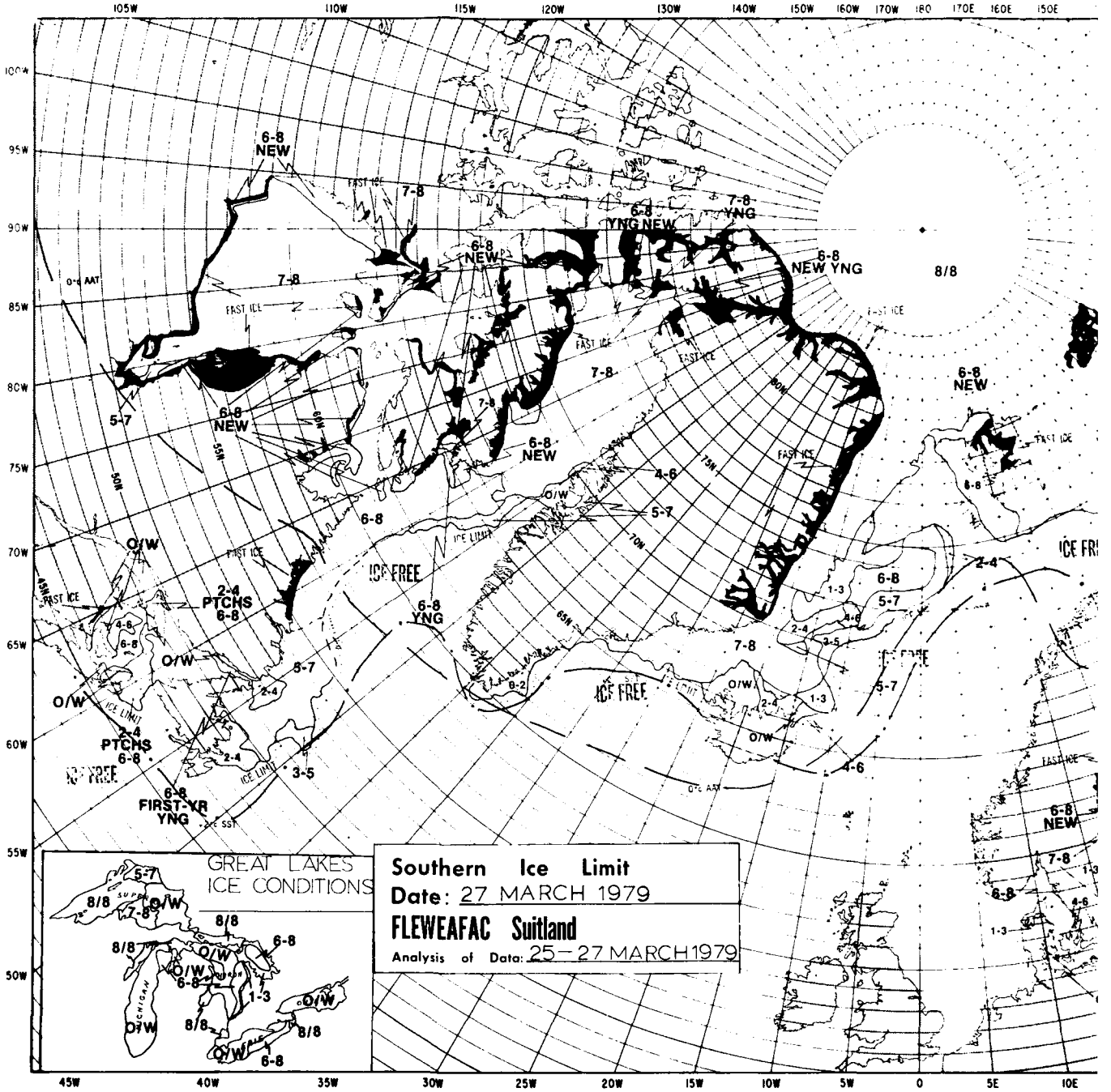
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E



130W
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
8/8
6-8
NEW
6-8
NEW
7-8
4-6
7-8
NEW/YNG
7-8
5-7
1-3
3-5
2-4
ICE FREE
6-8
2-4
3-5
O/W
3-5
4-6
7-8
7-8 NEW
6-8
O/W
6-8
1-3
ICE FREE
3-5
6-8
2-4
FAST ICE
FAST ICE
FAST ICE
ICE LIMIT
ICE LIMIT
75N
70N
65N
60N
55N
50N
45N
0°C AAT
1979

2


Southern Ice Limit
Date: 27 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 25 – 27 MARCH 1979
GREAT LAKES
ICE CONDITIONS
ICE FREE
FAST ICE
ICE LIMIT
6-8
NEW
7-8
6-8
YNG NEW
7-8
YNG
6-8
NEW YNG
8/8
5-7
4-6
O/W
2-4
PTCHS
6-8
6-8
YNG
3-5
6-8
FIRST-YR
YNG
1-3
2-4
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
100W
95W
90W
85W
80W
75W
70W
65W
60W
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45W
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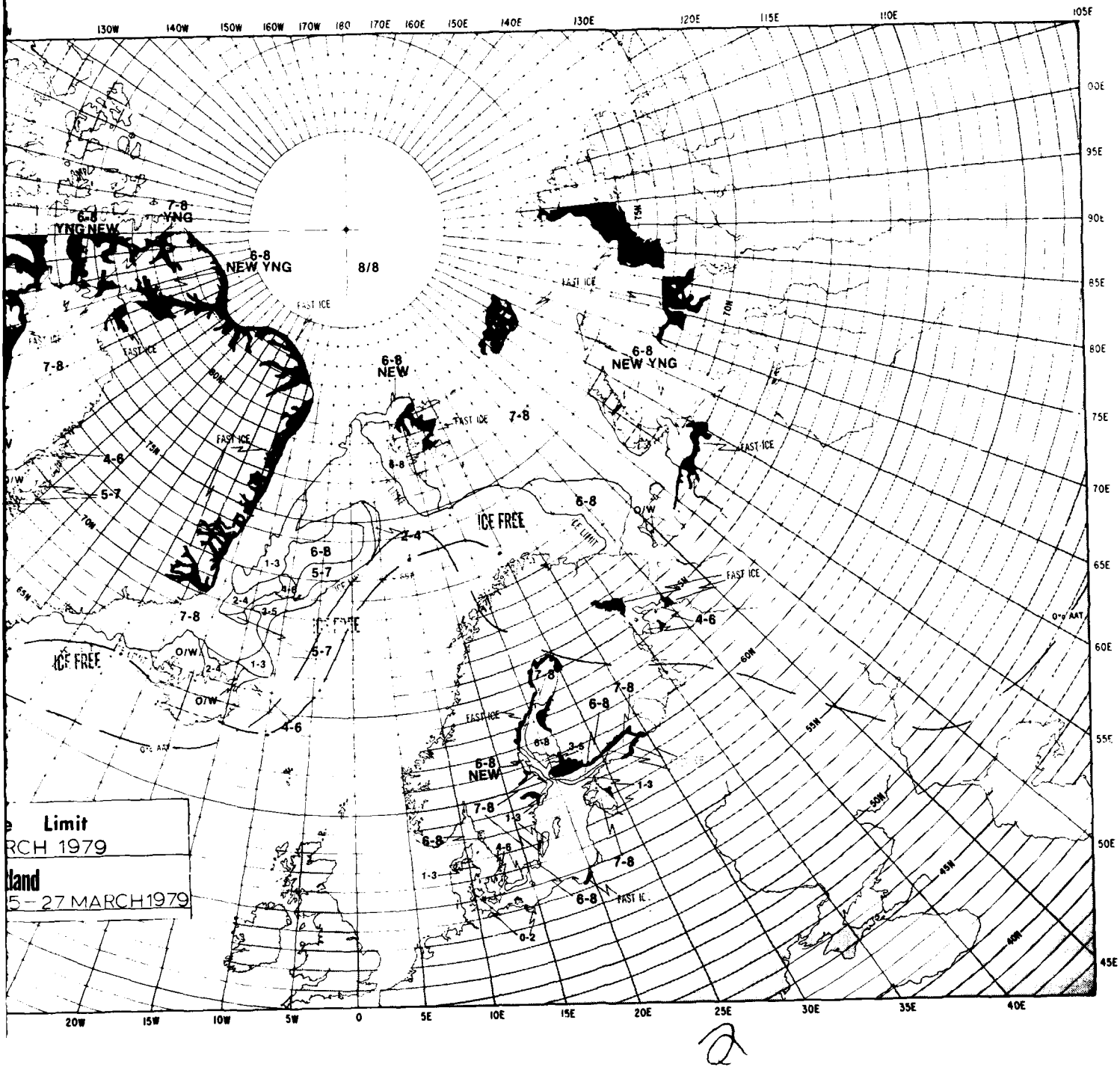
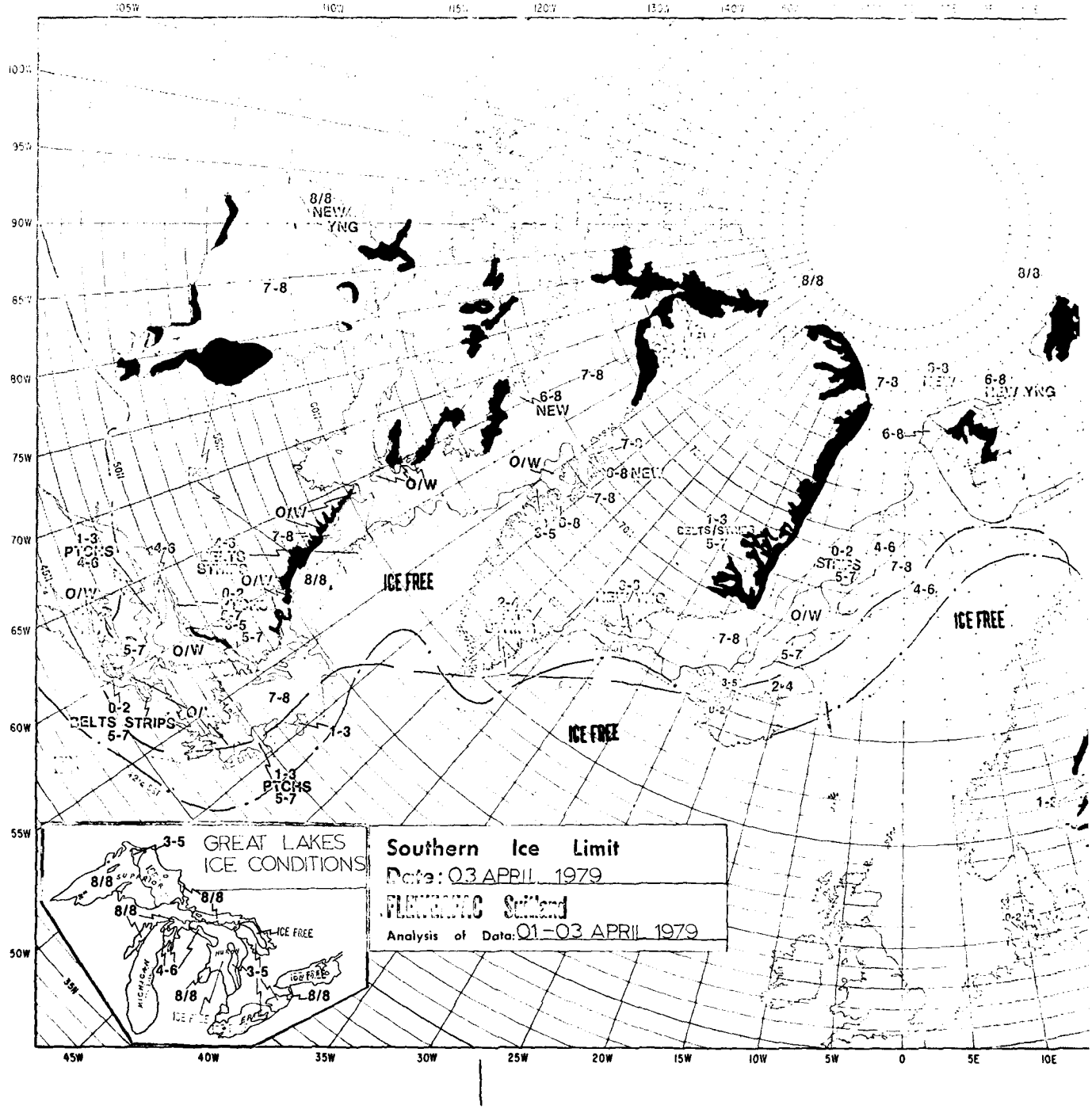
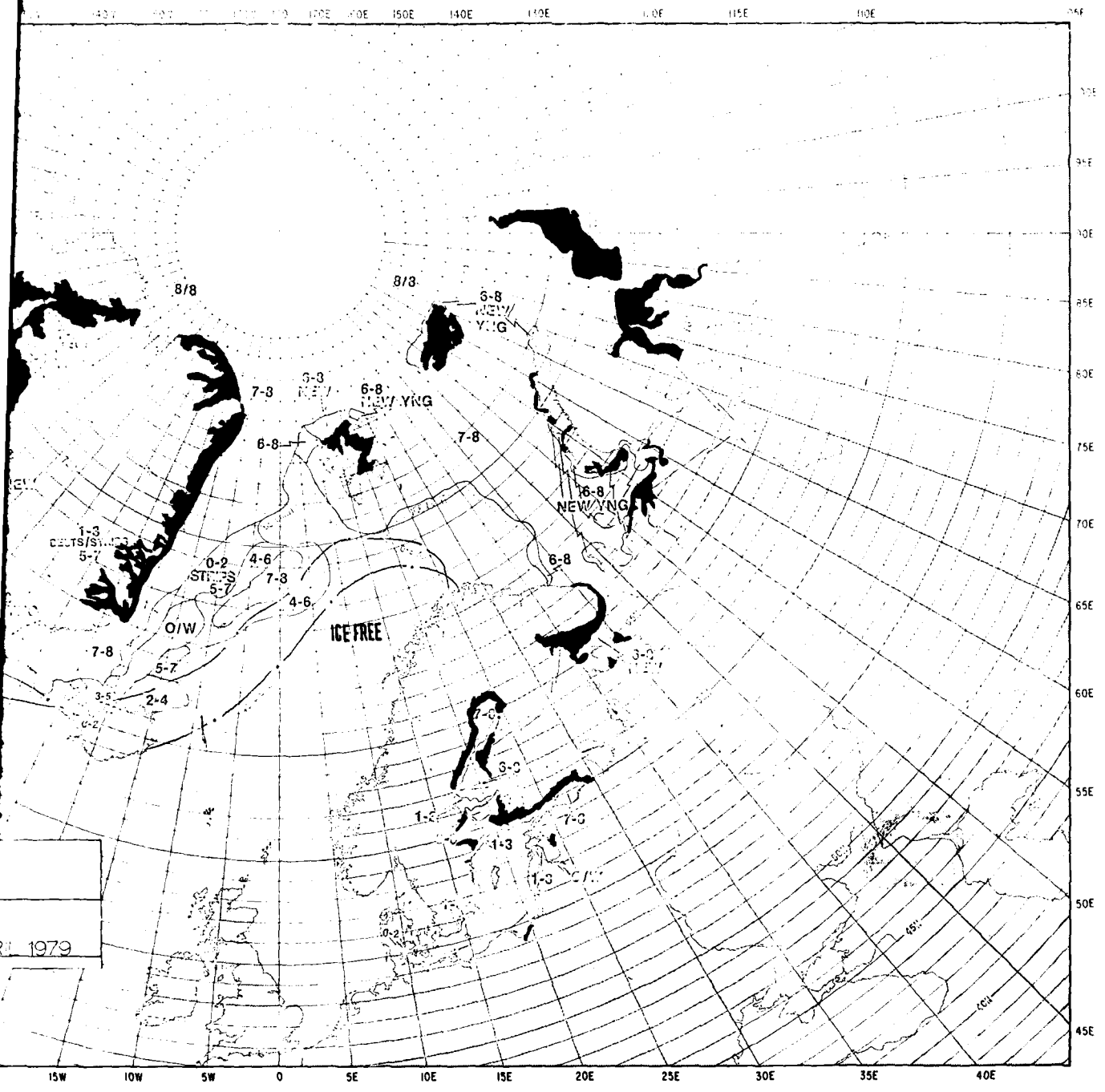
35W
30W
25W
20W
15W
10W
5W
0
5E
10E



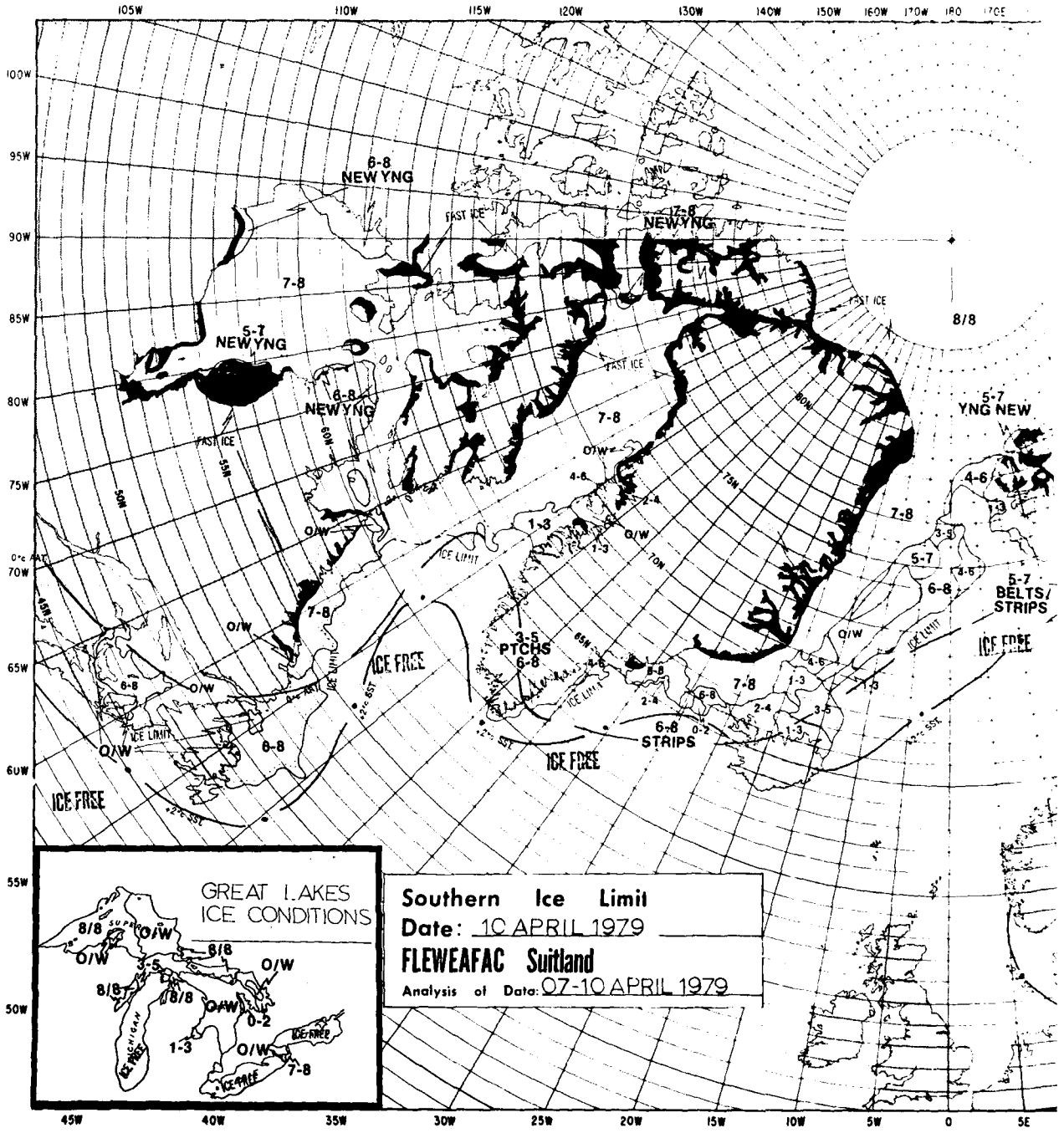
Limit
RCH 1979
land
5 - 27 MARCH 1979

2

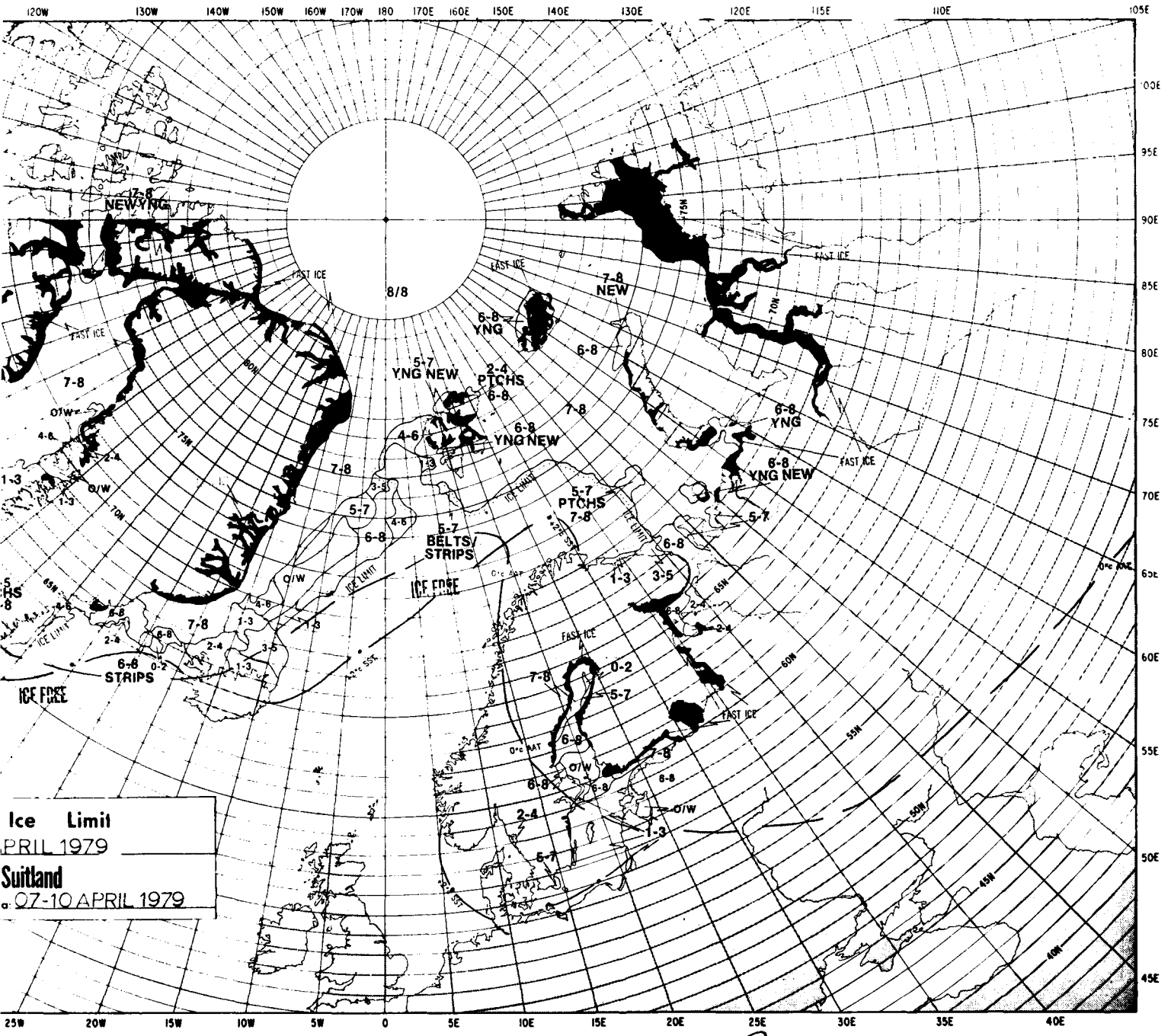

GREAT LAKES ICE CONDITIONS
Southern Ice Limit
Date: 03 APRIL 1979
Analysis of Data: 01-03 APRIL 1979
ICE FREE
O/W
7-8
8/8
6-8 NEW
1-3 PTCHS 4-6
0-2 STRIPS 5-7
1-3 PTCHS 5-7
105W
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E


8/8
8/8
6-8
NEW/
YNG
7-8
6-8
NEW YNG
6-8
7-8
6-8
NEW YNG
1-3
5-7
0-2
4-6
7-8
5-7
4-6
6-8
O/W
ICE FREE
7-8
5-7
3-5
2-4
0-2
3-9
7-9
3-9
1-3
7-9
1-3
1-3
0-2
45°
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
55E
50E
45E
1979

2

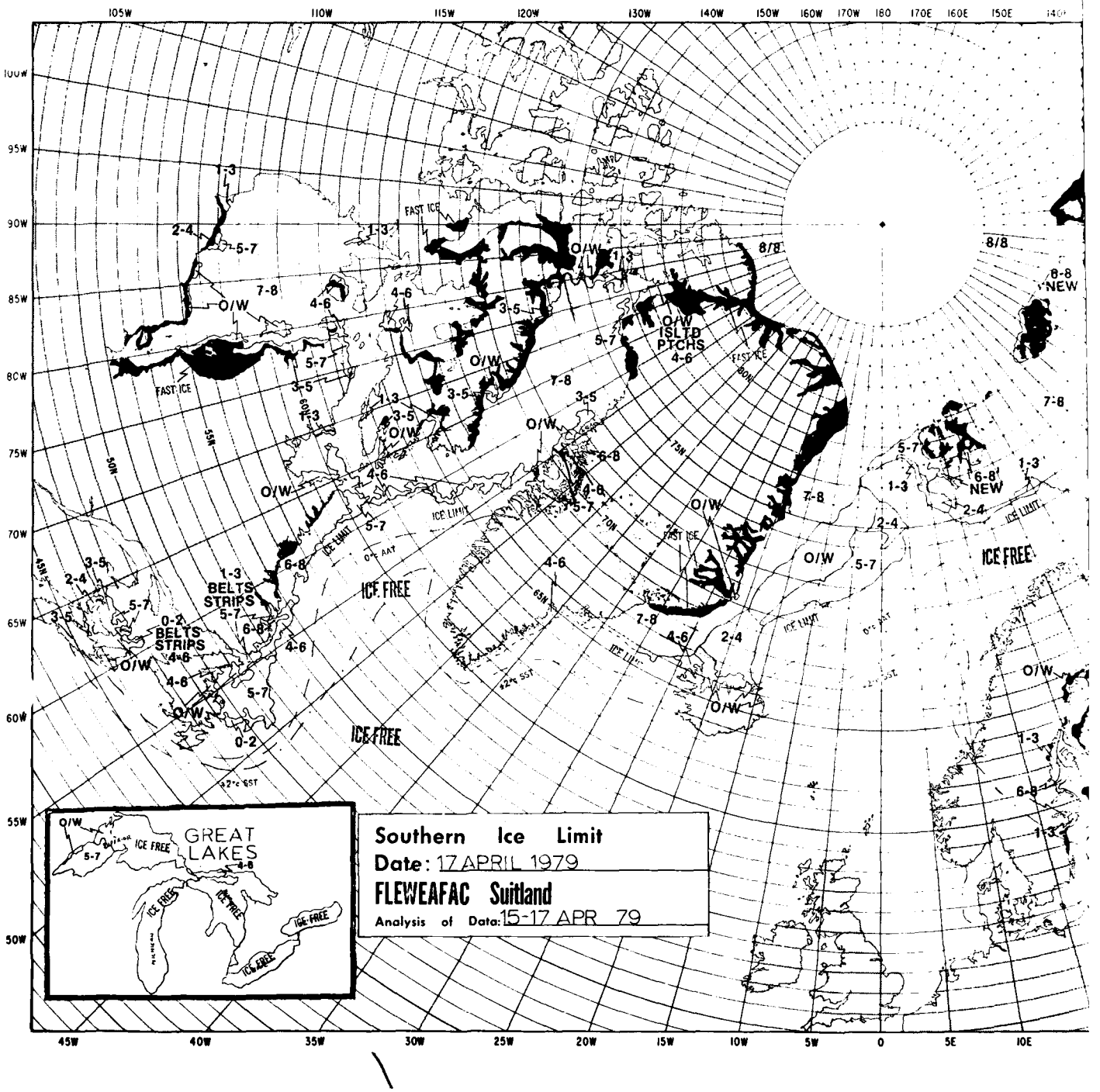


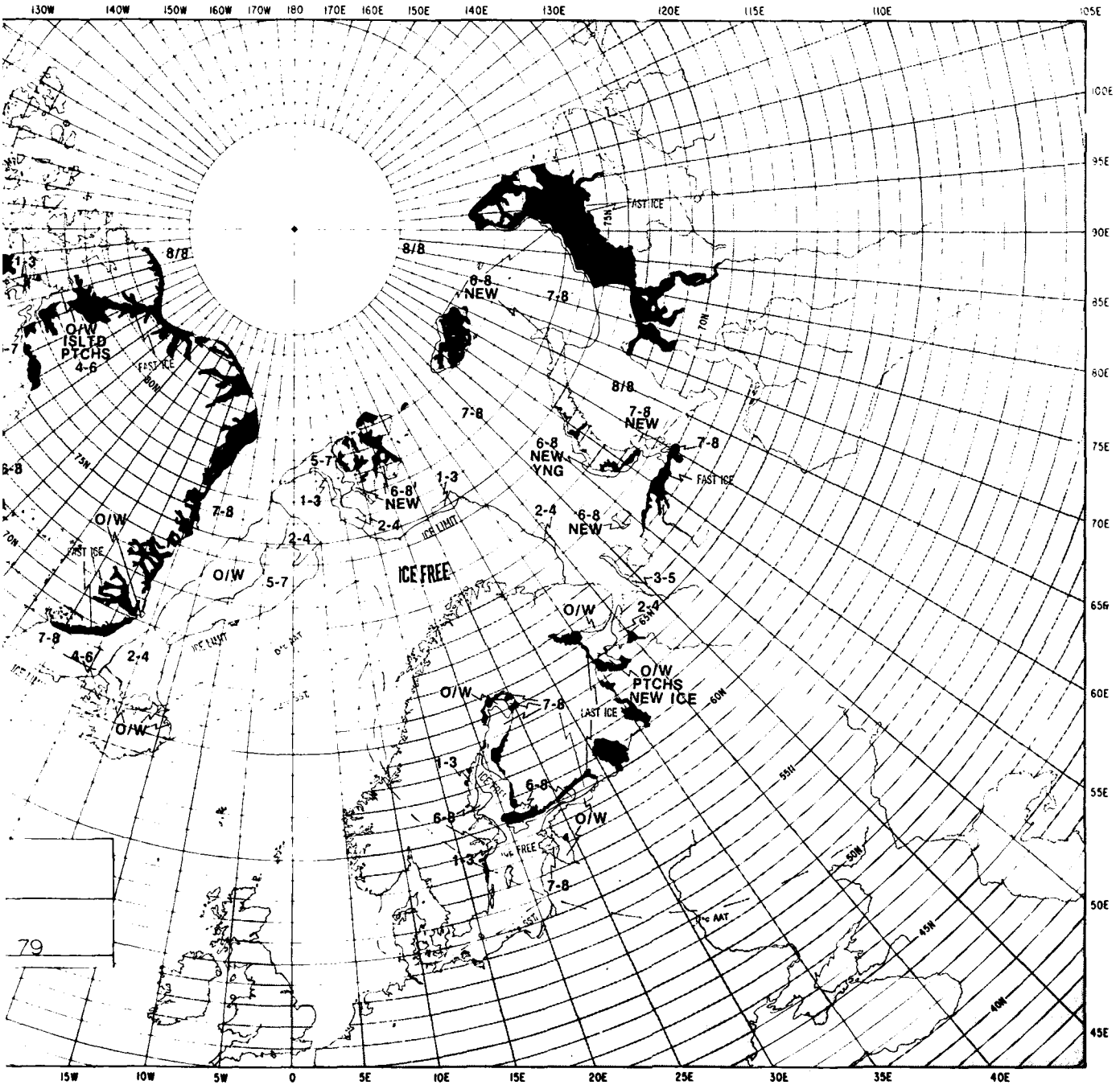
Southern Ice Limit
Date: 10 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data: 07-10 APRIL 1979
GREAT LAKES ICE CONDITIONS
ICE FREE
ICE LIMIT
FAST ICE
6-8 NEW YNG
7-8 NEW YNG
5-7 NEW YNG
6-8 NEW YNG
5-7 YNG NEW
5-7 BELTS/ STRIPS
3-5 PTCHS 6-8
6-8 STRIPS
8/8
7-8
O/W



Ice Limit
APRIL 1979
Suitland
07-10 APRIL 1979
8/8
7-8 NEW YNG
7-8 NEW
6-8 YNG
5-7 YNG NEW
2-4 PTCHS
6-8 YNG NEW
5-7 PTCHS
5-7 BELTS/ STRIPS
6-8 STRIPS
ICE FREE
FAST ICE
ICE LIMIT
O/W

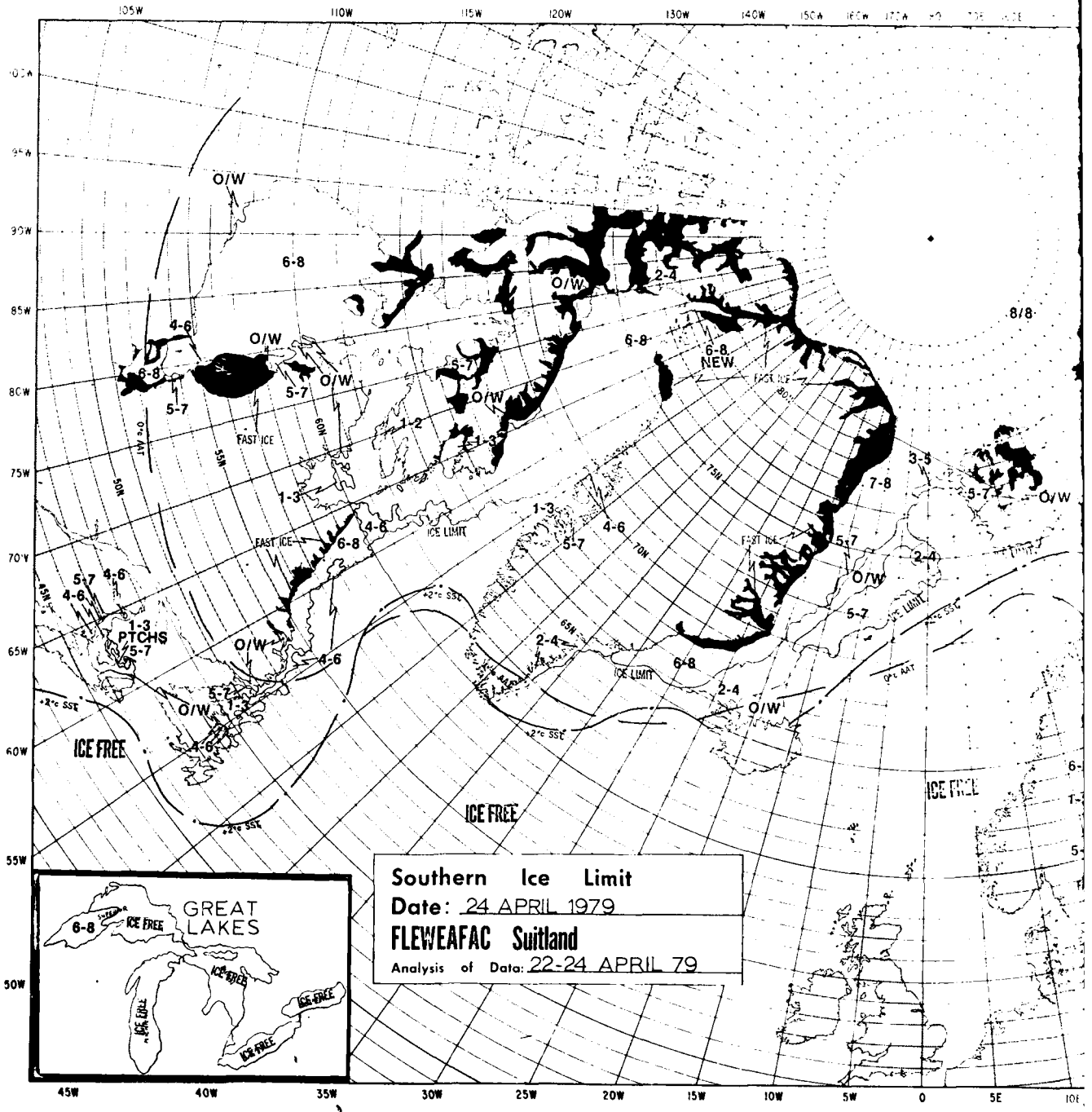
2

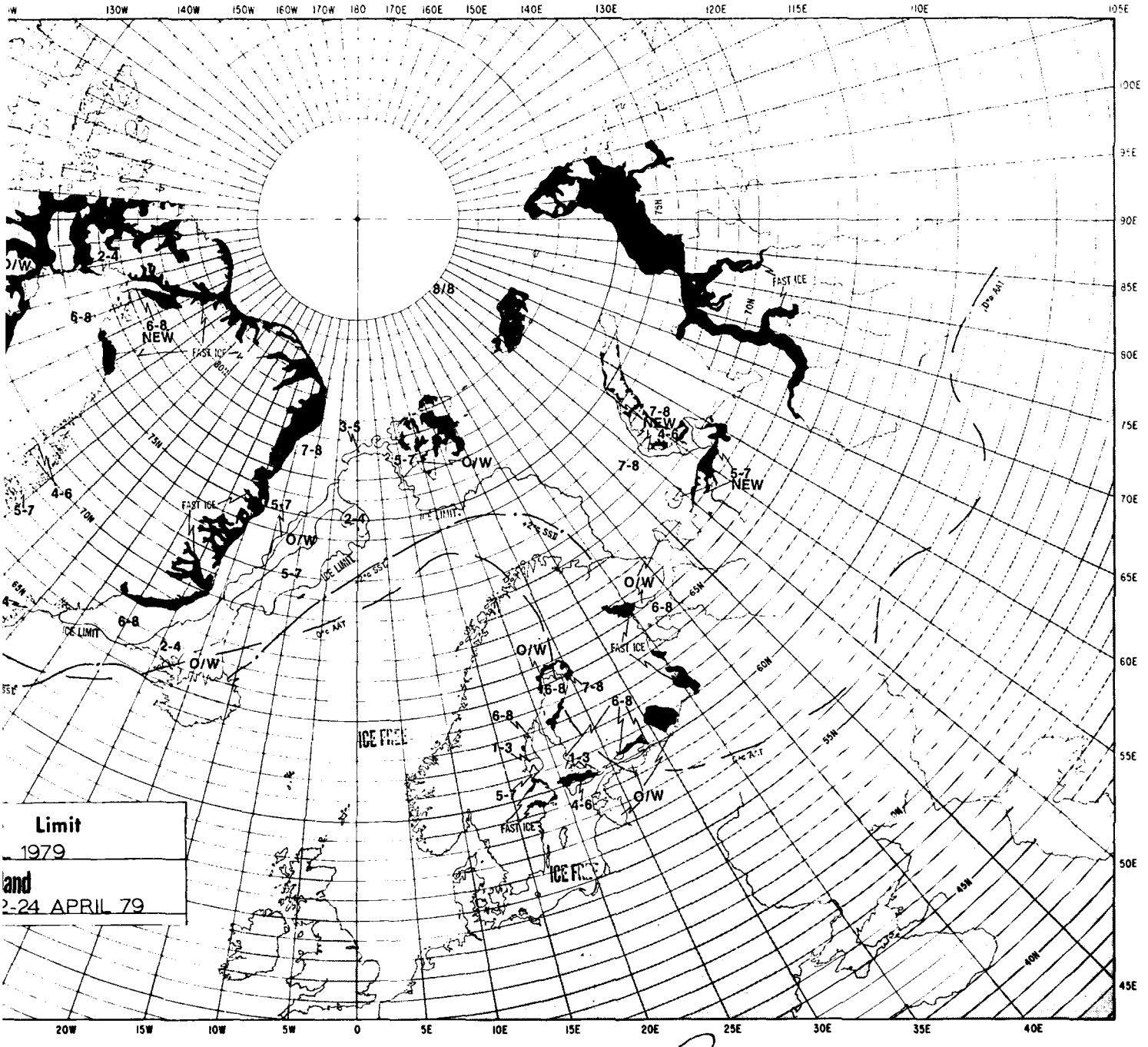

Southern Ice Limit
Date: 17 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data: 15-17 APR 79
GREAT LAKES
ICE FREE
ICE LIMIT
FAST ICE
O/W
ISLTD PTCHS
BELTS STRIPS
NEW



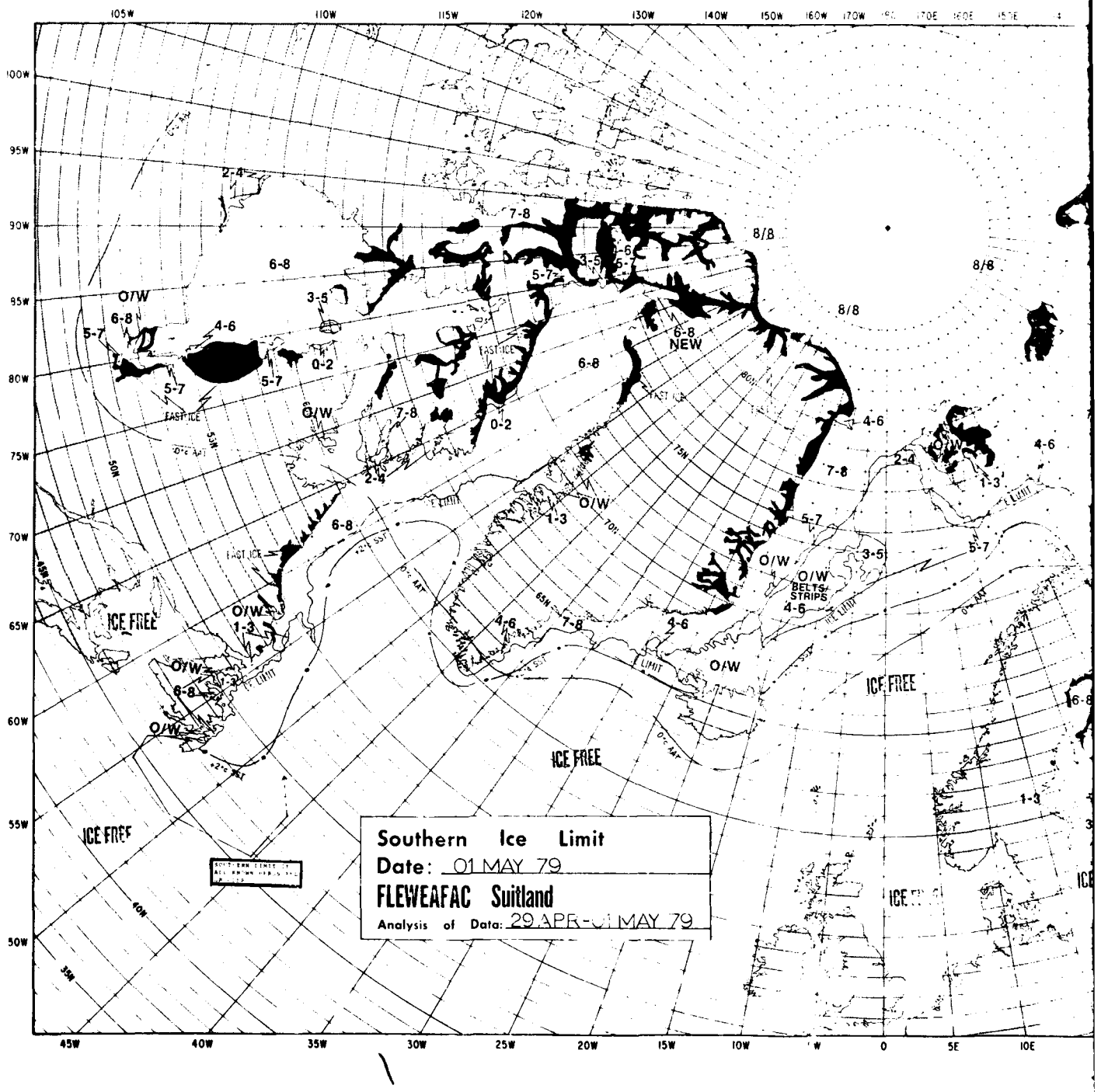
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
8/8
1-3
O/W
ISLTD
PTCHS
4-6
FAST ICE
6-8
NEW
7-8
8/8
7-8
NEW
7-8
6-8
NEW
YNG
FAST ICE
5-7
1-3
6-8
NEW
1-3
2-4
ICE LIMIT
2-4
6-8
NEW
7-8
O/W
FAST ICE
2-4
O/W
5-7
ICE FREE
3-5
O/W
2-4
7-8
4-6
2-4
ICE LIMIT
O/W
PTCHS
NEW ICE
O/W
7-8
FAST ICE
O/W
1-3
6-8
6-8
O/W
1-3
7-8
79

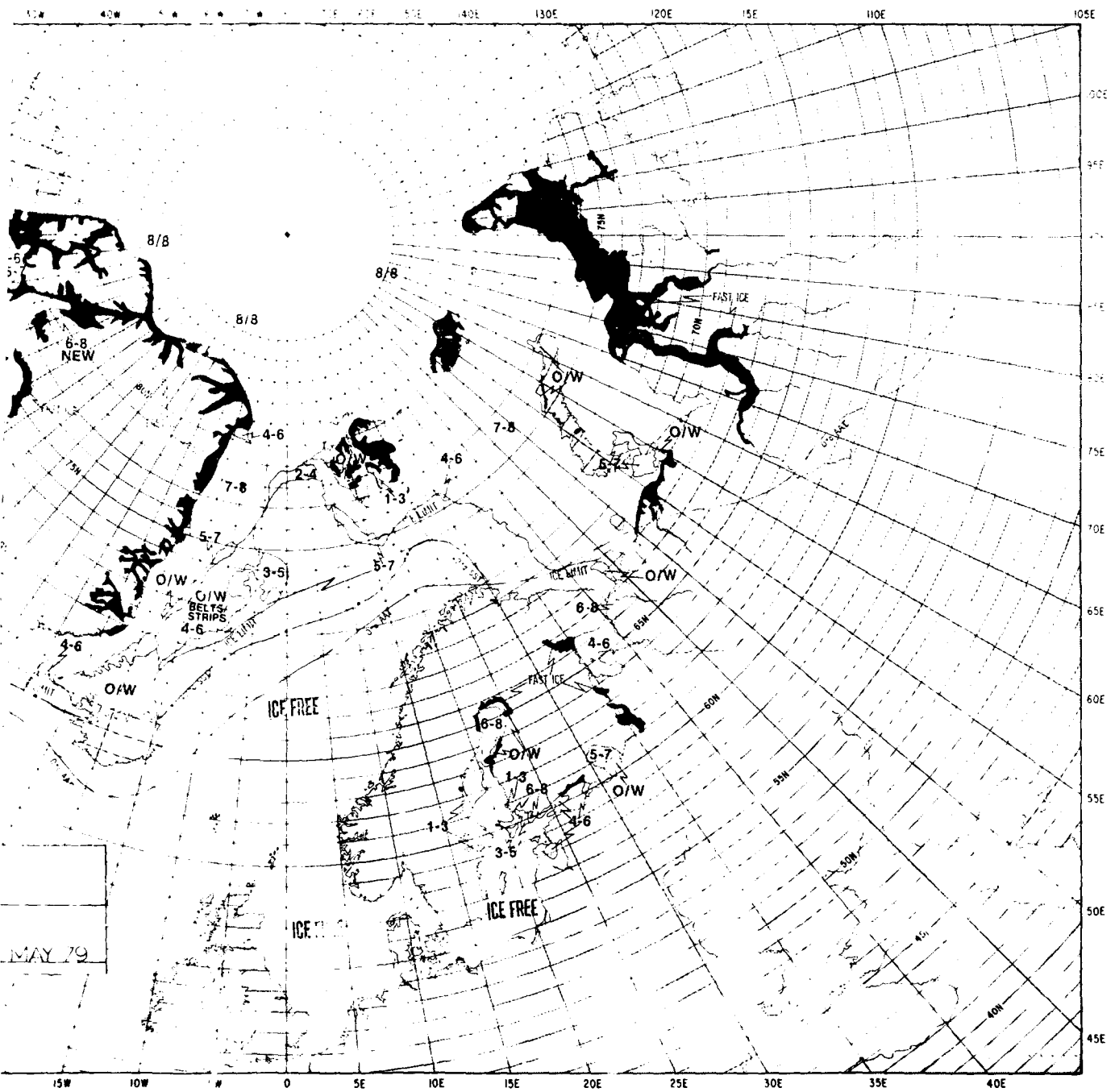
2


Southern Ice Limit
Date: 24 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data: 22-24 APRIL 79
GREAT LAKES
ICE FREE
ICE LIMIT
FAST ICE
PTCHS
NEW
O/W
105W
110W
115W
120W
130W
140W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
50W
55W
60W
65W
70W
75W
80W
85W
90W
95W
100W



Limit
1979
land
2-24 APRIL 79
ICE FREE
FAST ICE
ICE LIMIT
O/W
NEW


Southern Ice Limit
Date: 01 MAY 79
FLEWEAFAC Suitland
Analysis of Data: 29 APR-01 MAY 79
ICE FREE
ICE FREE
ICE FREE
ICE FREE
ICE FREE
EAST ICE
EAST ICE
EAST ICE
NEW
BELTS/STRIPS
O/W
105W
110W
115W
120W
130W
140W
150W
160W
170W
0
5E
10E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W



8/8
8/8
8/8
6-8
NEW
4-6
7-8
2-4
1-3
4-6
7-8
5-7
3-5
5-7
O/W
O/W
BELTS/
STRIPS
4-6
4-6
O/W
ICE FREE
O/W
O/W
O/W
6-8
4-6
FAST ICE
FAST ICE
6-8
O/W
5-7
1-3
6-8
O/W
1-3
4-6
3-5
ICE FREE
ICE
MAY 79
75N
70N
65N
60N
55N
50N
40N
40W
130E
120E
15E
110E
105E
75E
70E
65E
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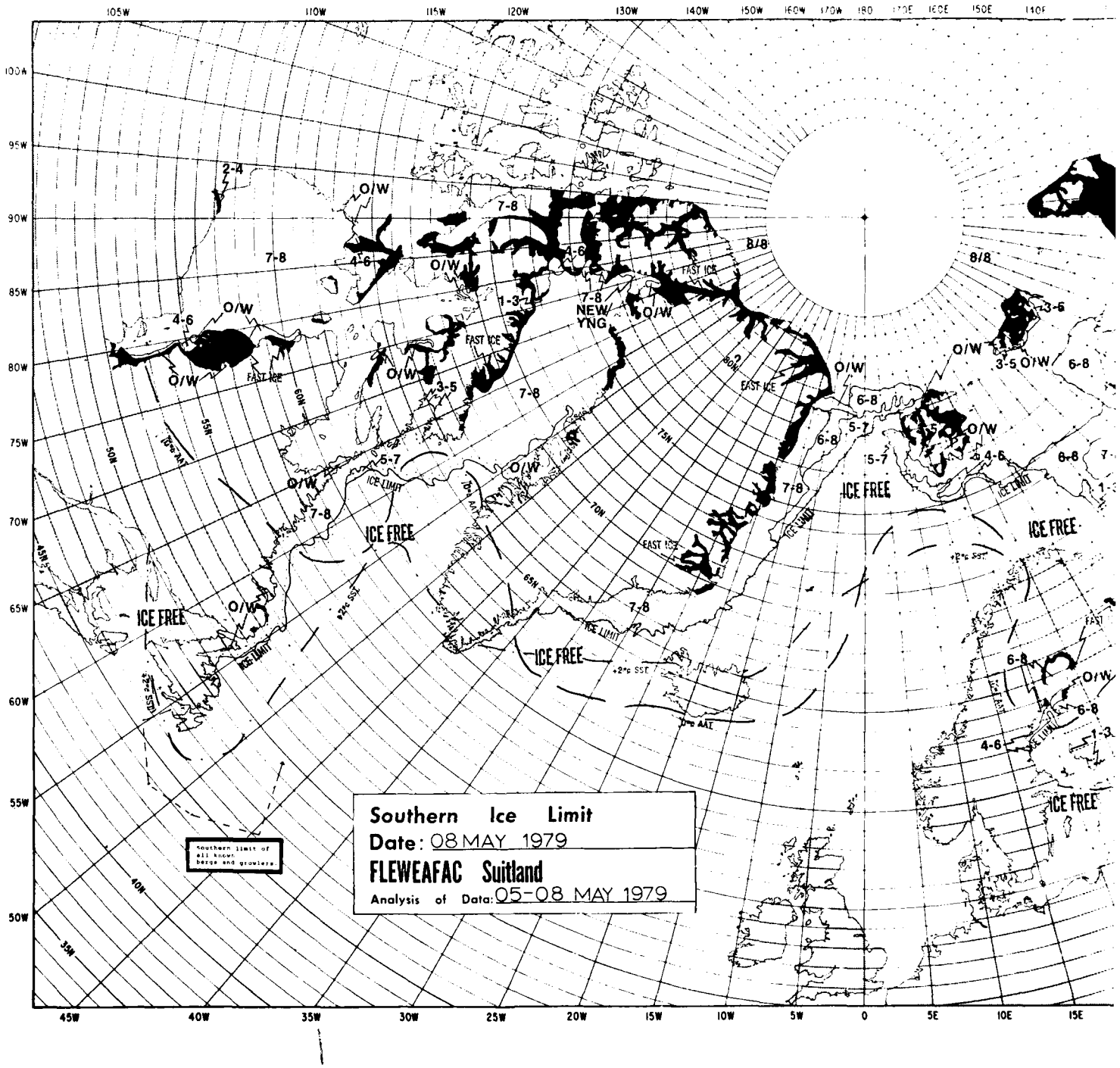
25E
30E
35E
40E

2


105W
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75W
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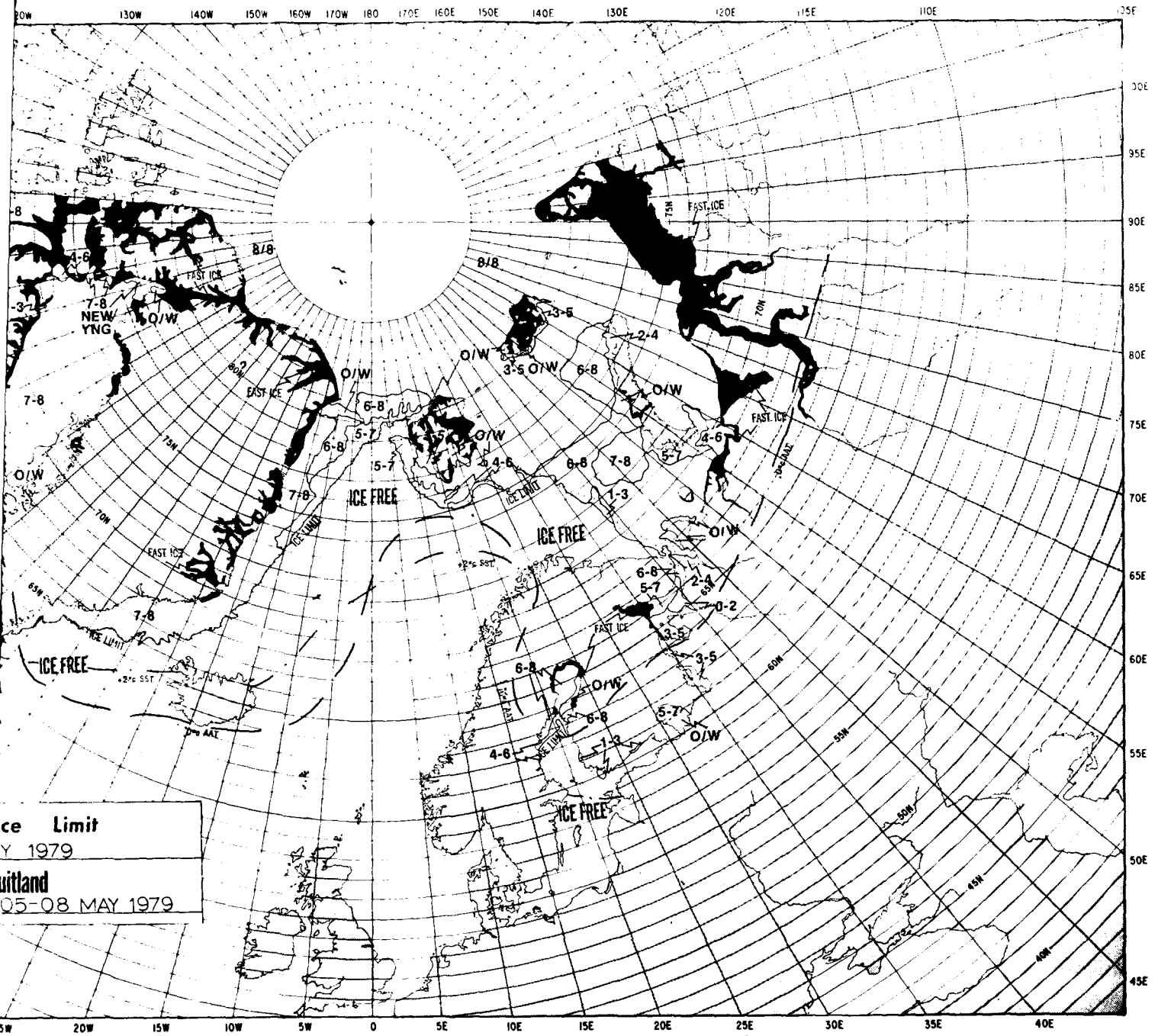
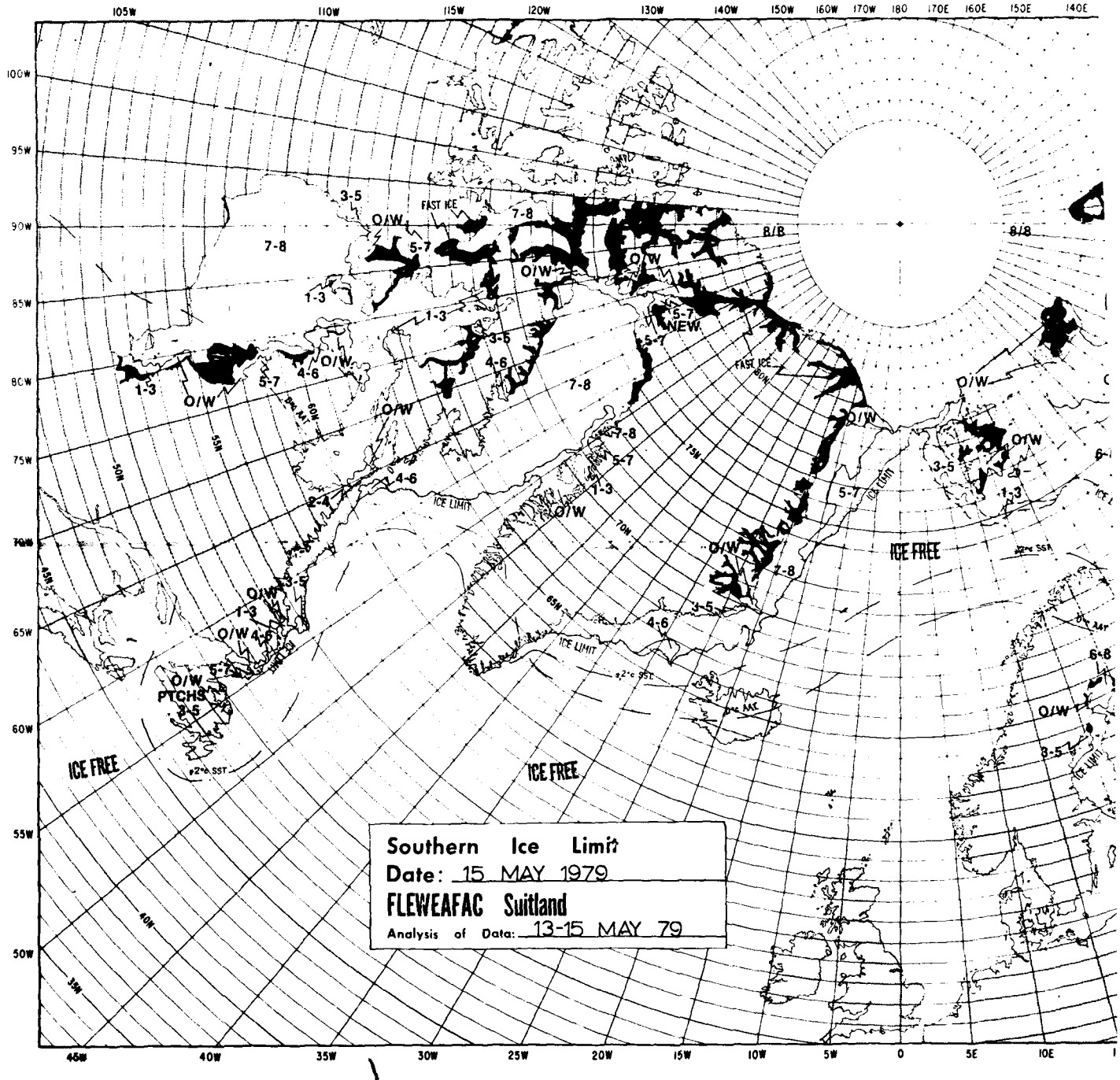
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
2-4
O/W
7-8
4-6
1-3
3-5
5-7
6-8
8/8
NEW YNG
FAST ICE
ICE LIMIT
ICE FREE
+2°c SST
Southern Ice Limit
Date: 08 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 05-08 MAY 1979
Southern limit of all known bergs and growlers.



ce Limit
Y 1979
uitland
05-08 MAY 1979


105W
110W
115W
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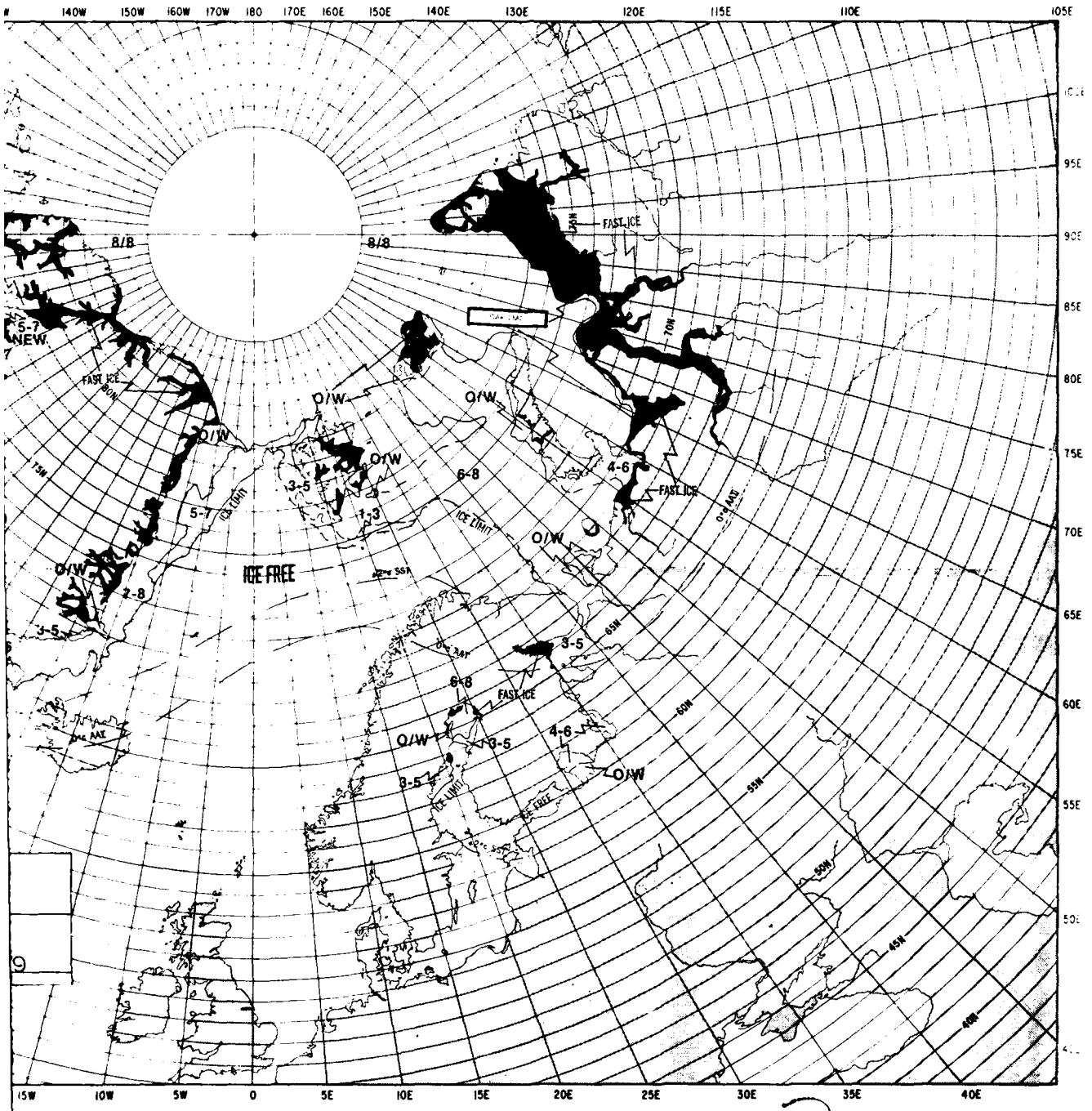
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
7-8
3-5
O/W
FAST ICE
5-7
8/8
1-3
4-6
NEW
ICE LIMIT
ICE FREE
PTCHS
Southern Ice Limit
Date: 15 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 13-15 MAY 79


140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
95E
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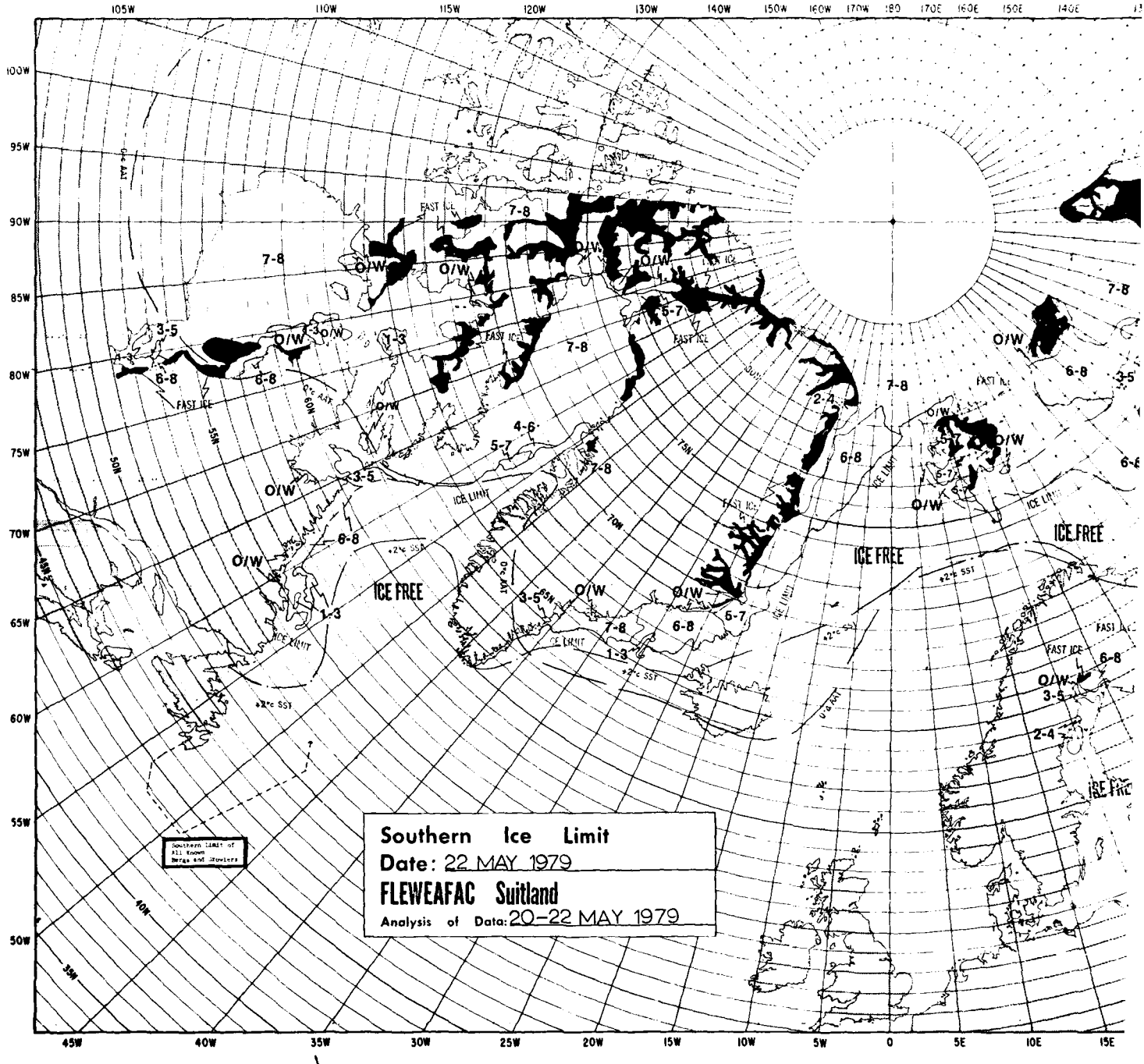
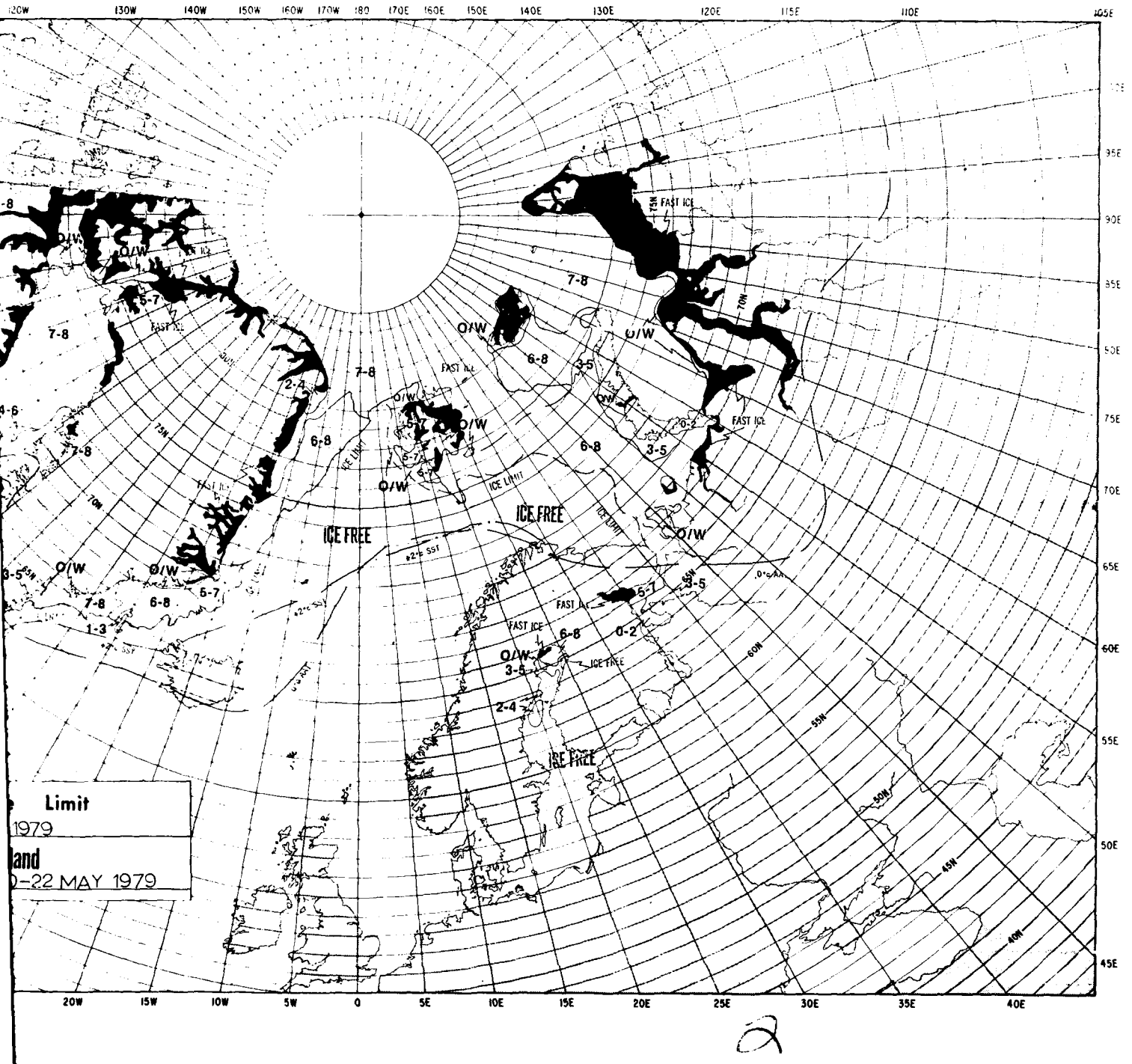
85E
80E
75E
70E
65E
60E
55E
50E
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
8/8
8/8
5-7
NEW
FAST ICE
O/W
O/W
O/W
O/W
O/W
O/W
O/W
O/W
O/W
O/W
O/W
O/W
3-5
1-3
6-8
4-6
5-7
2-8
3-5
3-5
6-8
4-6
3-5
3-5
ICE LIMIT
ICE LIMIT
ICE LIMIT
ICE FREE
FAST ICE
FAST ICE
FAST ICE
70N
65N
60N
55N
50N
45N
40N
75N

2


105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
7-8
O/W
3-5
6-8
FAST ICE
1-3
5-7
4-6
2-4
ICE FREE
ICE LIMIT
+2°c SST
Southern Ice Limit
Date: 22 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 20-22 MAY 1979


120W
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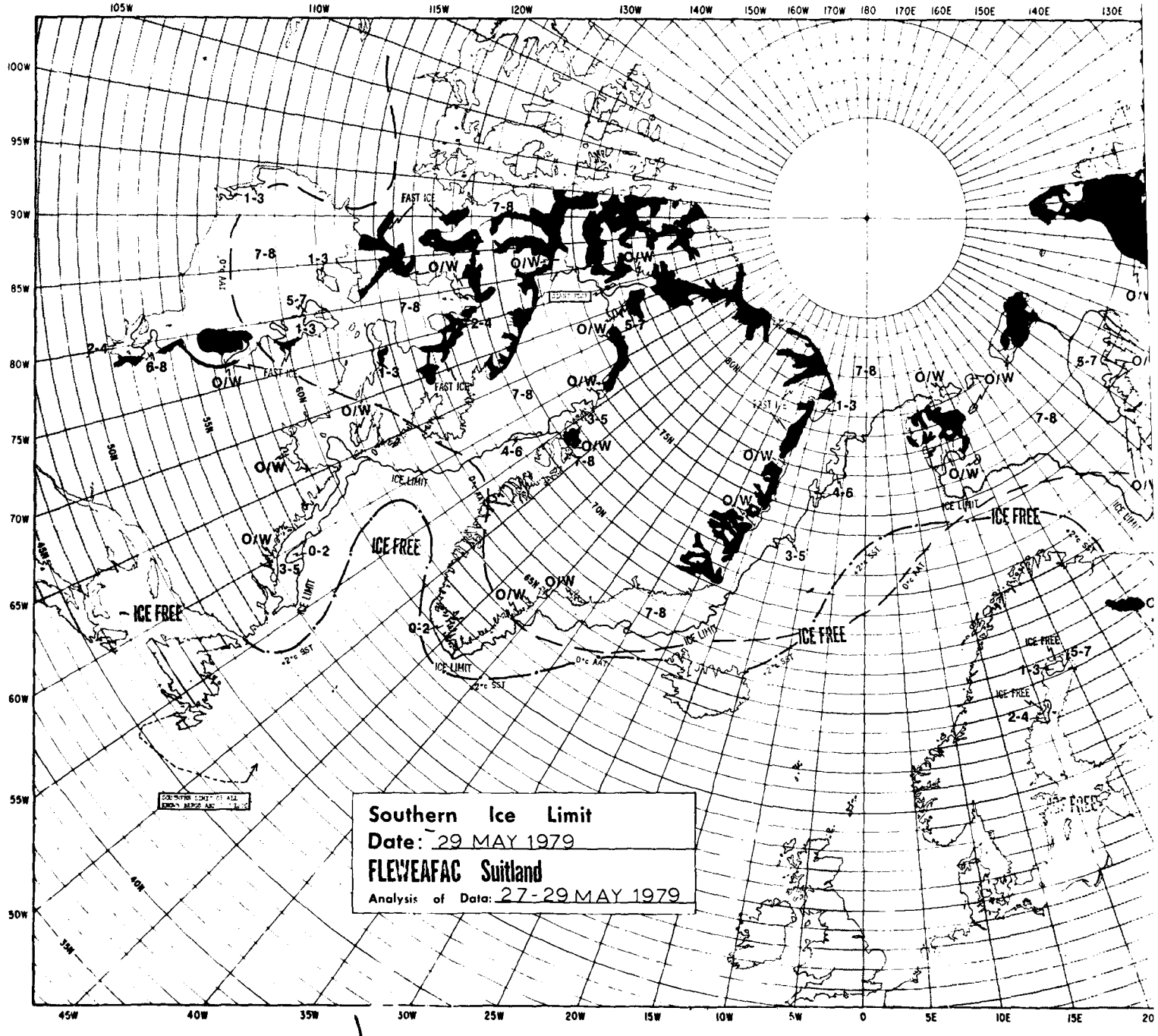
5E
0
5W
10W
15W
20W
FAST ICE
ICE FREE
ICE LIMIT
O/W
7-8
6-8
5-7
3-5
2-4
1-3
0-2
75N
70N
65N
60N
55N
50N
45N
40N
Limit
1979
land
0-22 MAY 1979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65W
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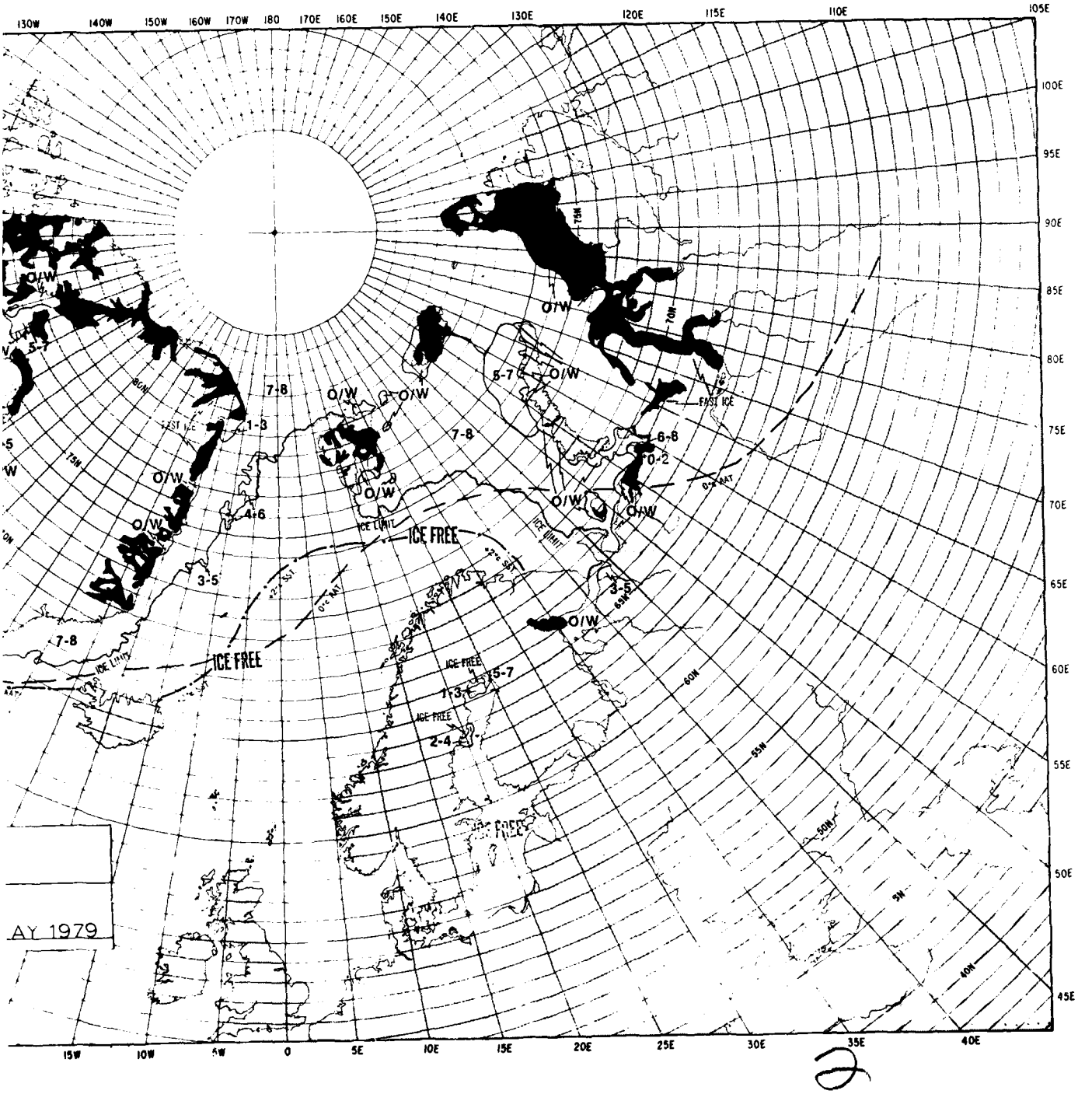
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
FAST ICE
O/W
ICE FREE
ICE LIMIT
1-3
2-4
3-5
4-6
5-7
6-8
7-8
0-2
Southern Ice Limit
Date: 29 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 27-29 MAY 1979



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5W
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20E
25E
30E
35E
40E
O/W
7-8
1-3
5-7
6-8
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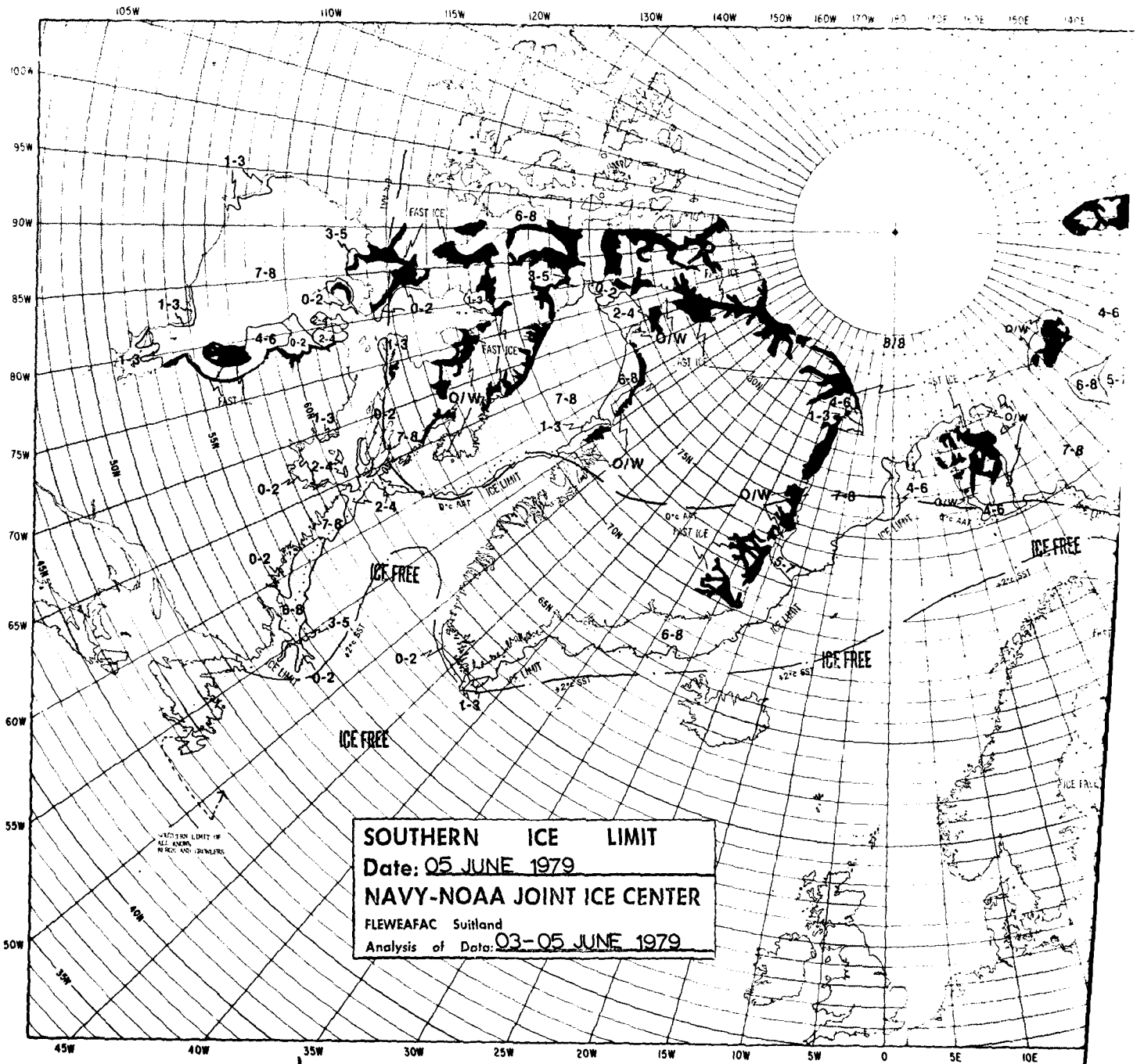
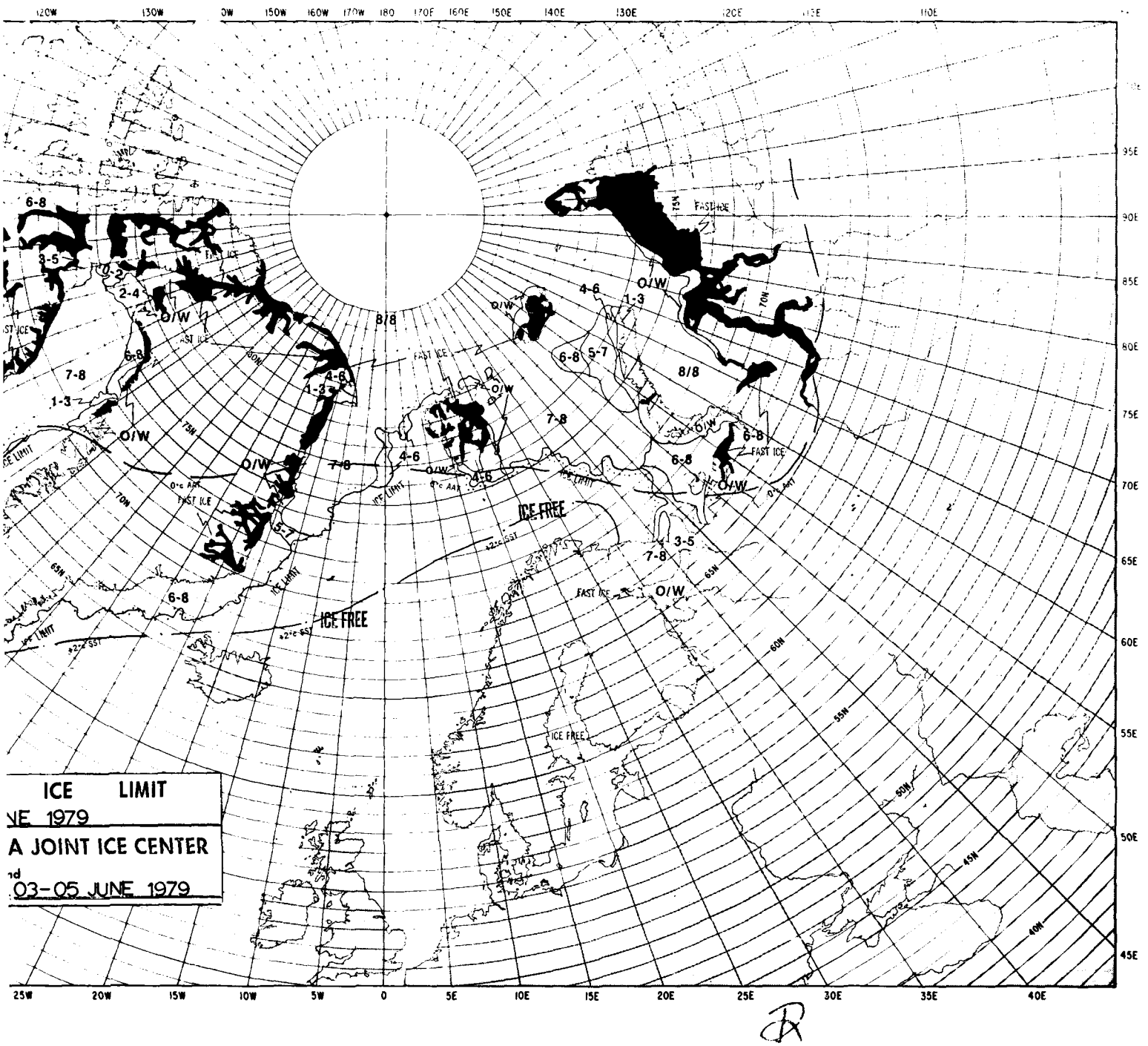
4-6
3-5
2-4
ICE FREE
ICE LIMIT
FAST ICE
AY 1979

2


SOUTHERN ICE LIMIT
Date: 05 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 03-05 JUNE 1979
ICE FREE
FAST ICE
O/W
ICE LIMIT


ICE LIMIT
NE 1979
A JOINT ICE CENTER
nd
03-05 JUNE 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
O/W
8/8
6-8
3-5
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120W
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150W
160W
170W
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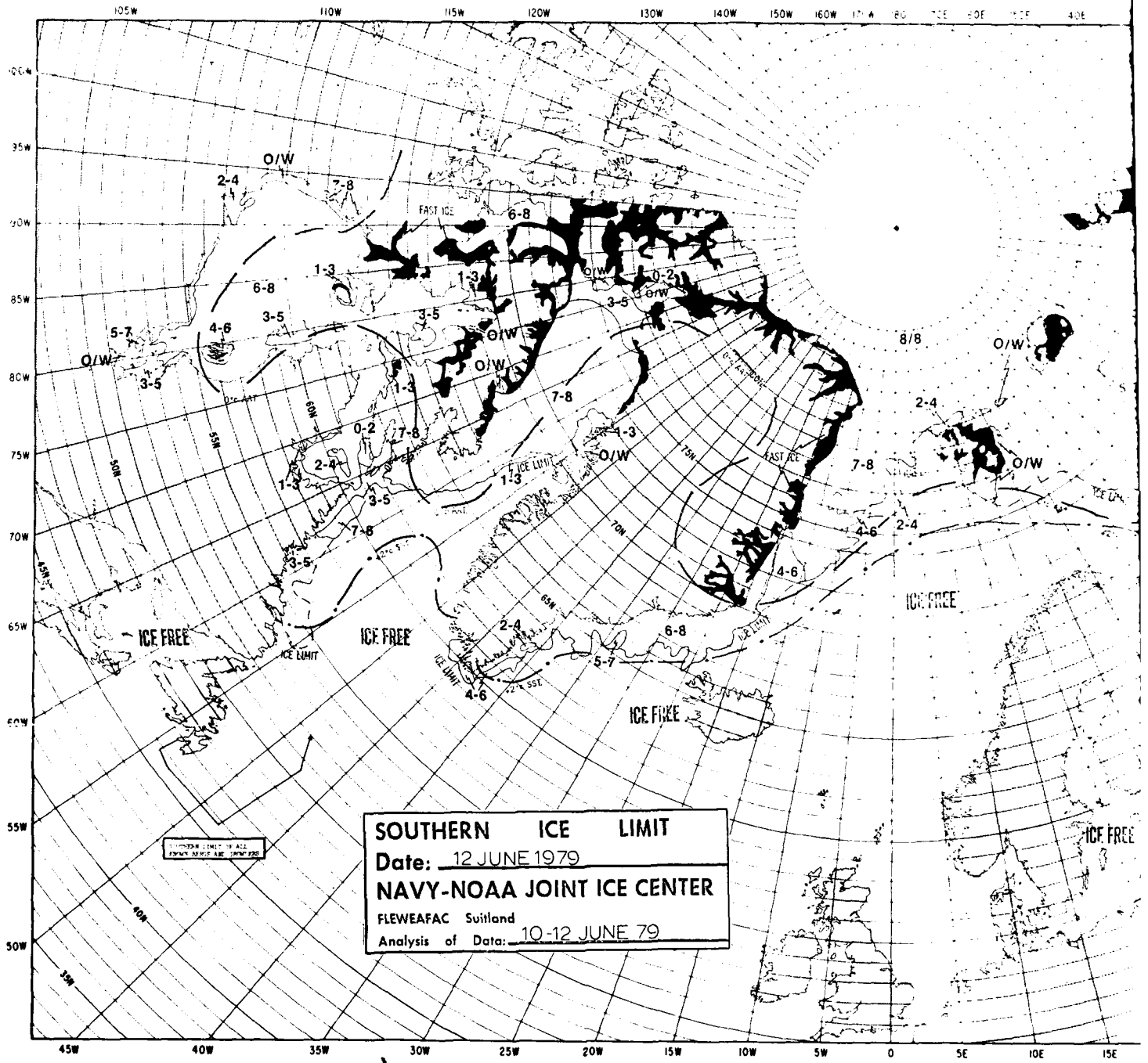
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30W
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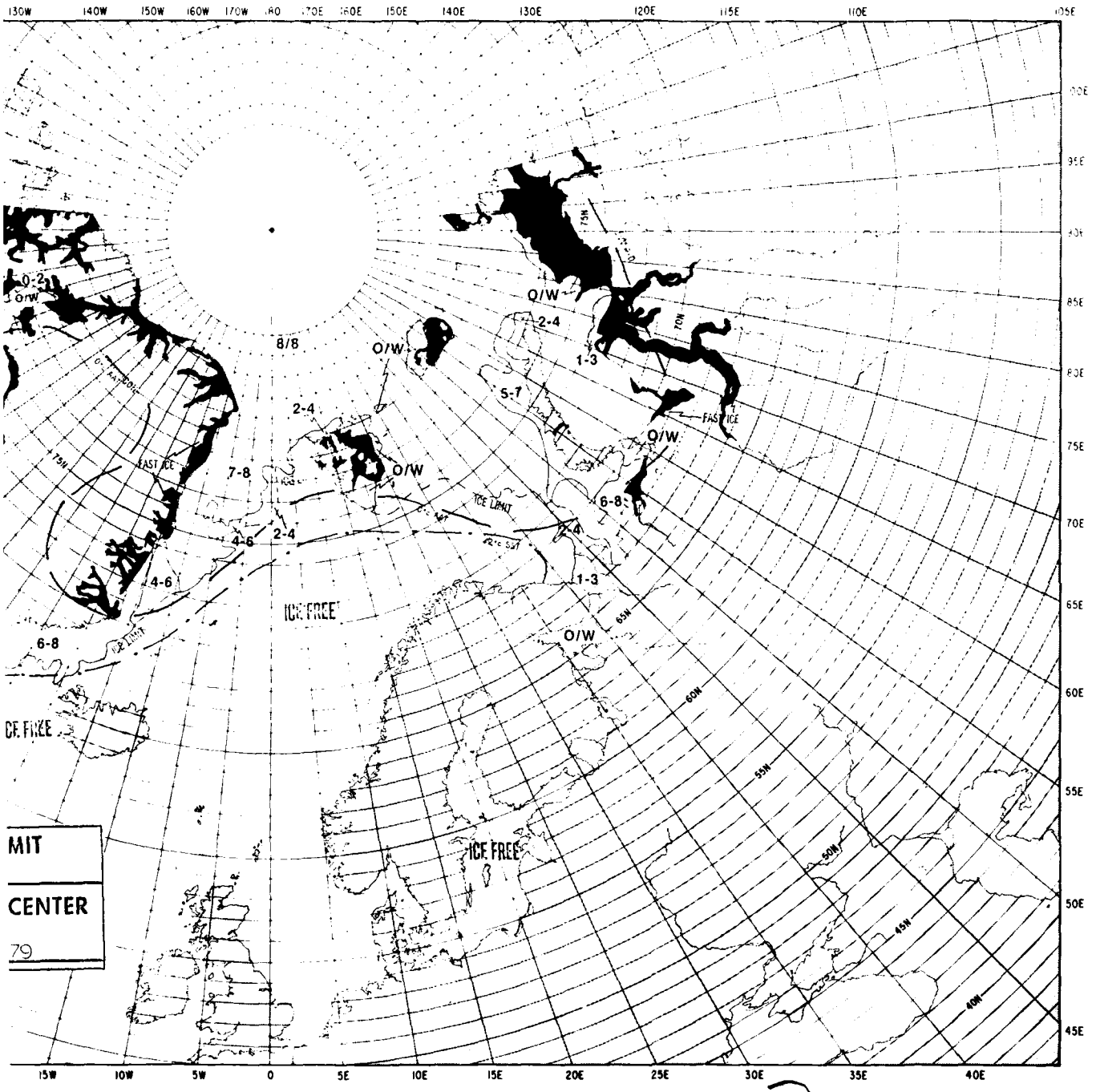
15E
O/W
2-4
7-8
6-8
1-3
0-2
3-5
5-7
4-6
8/8
FAST ICE
ICE LIMIT
ICE FREE
SOUTHERN ICE LIMIT
Date: 12 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 10-12 JUNE 79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75E
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45E
75N
70N
65N
60N
55N
50N
45N
40N
0-2
O/W
8/8
O/W
2-4
1-3
5-7
FAST ICE
O/W
2-4
O/W
7-8
FAST ICE
ICE LIMIT
6-8
4-6
2-4
2-4
1-3
4-6
ICE FREE
O/W
6-8
ICE FREE
ICE FREE
MIT
CENTER
79
15W
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35E
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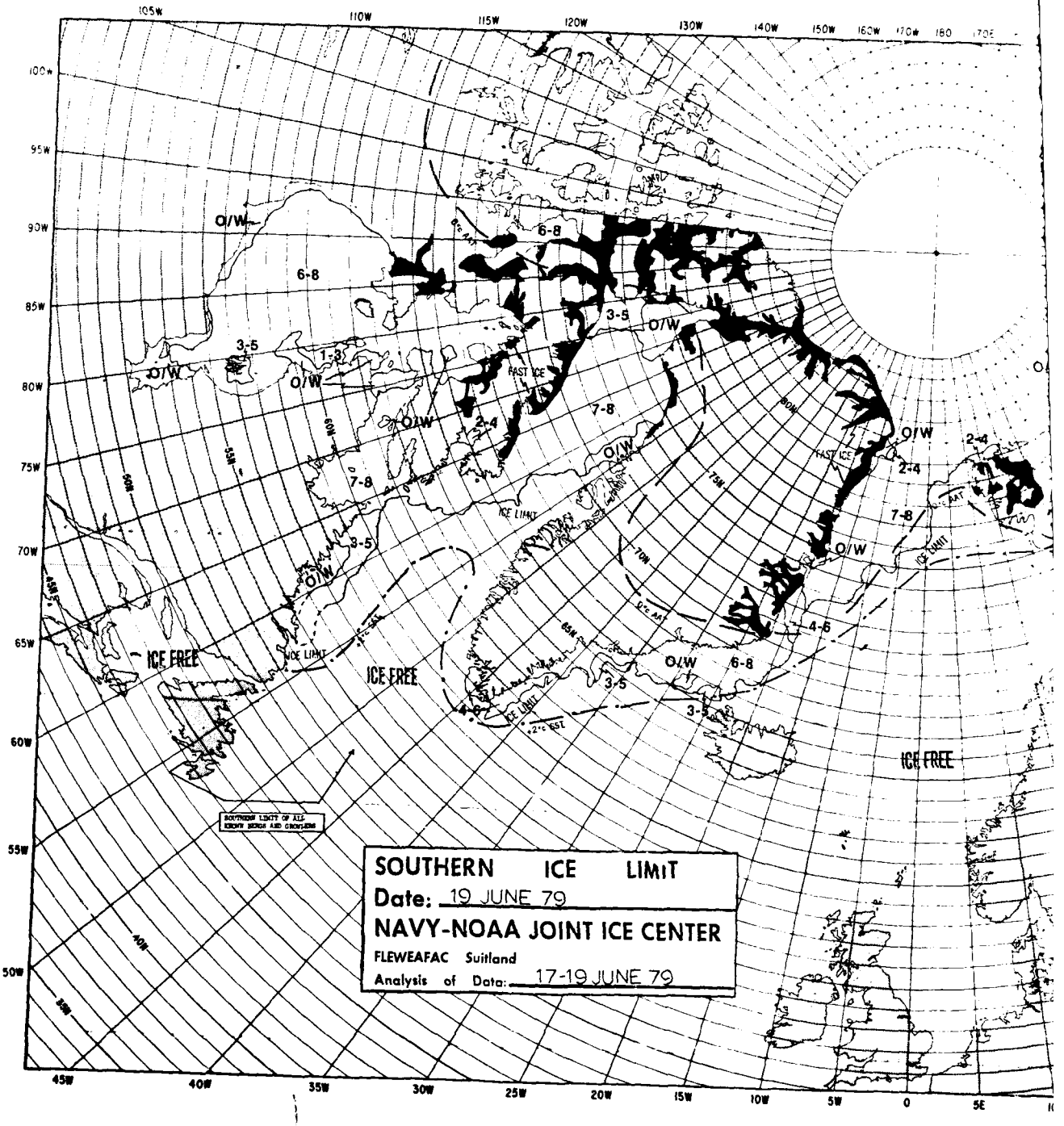
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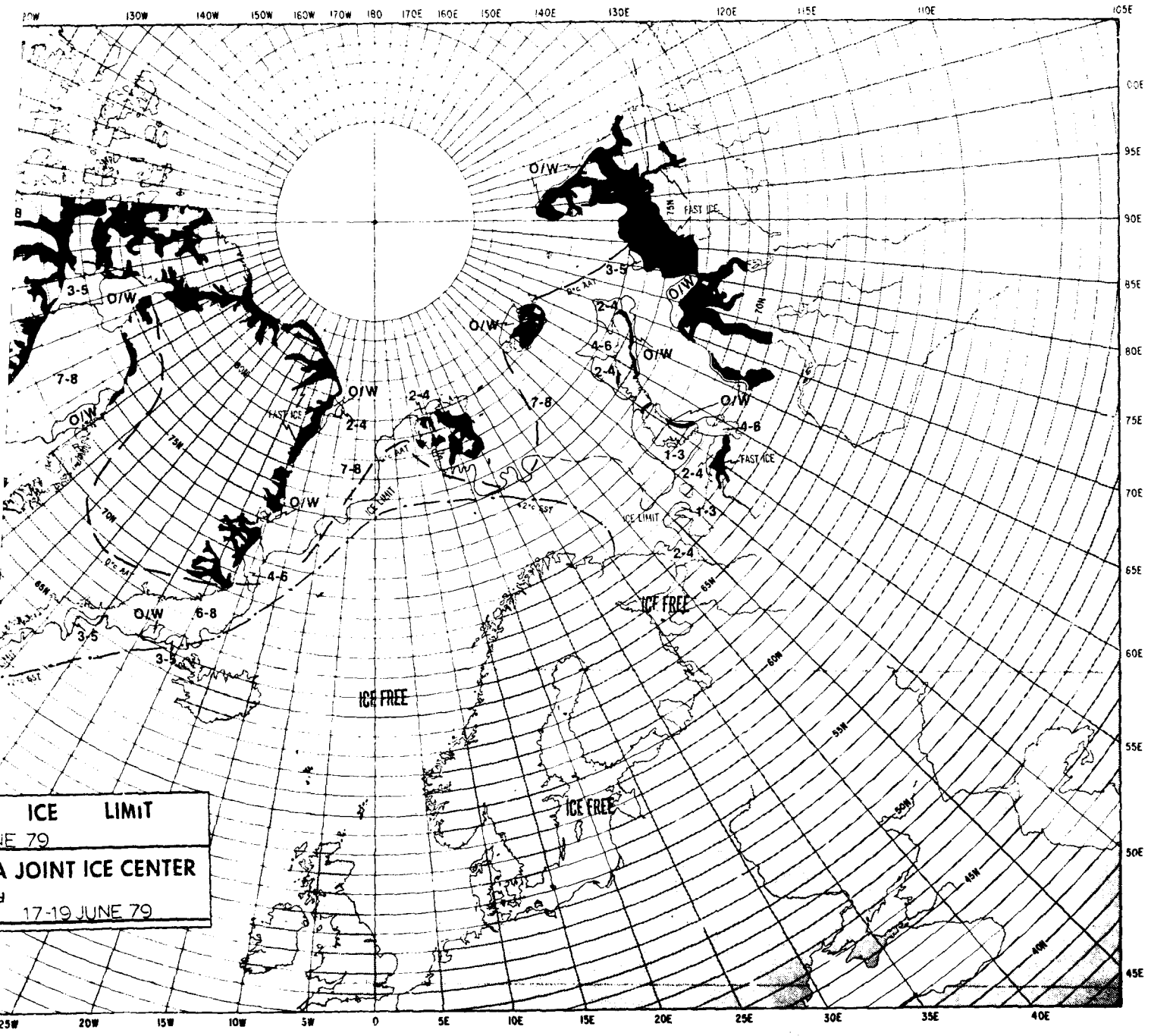
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
O/W
6-8
3-5
1-2
2-4
7-8
4-6
FAST ICE
ICE LIMIT
ICE FREE
SOUTHERN ICE LIMIT
Date: 19 JUNE 79
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 17-19 JUNE 79


ICE LIMIT
JE 79
A JOINT ICE CENTER
17-19 JUNE 79
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
ICE LIMIT
ICE LIMIT
O/W
3-5
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2-4
4-6
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6-8
130W
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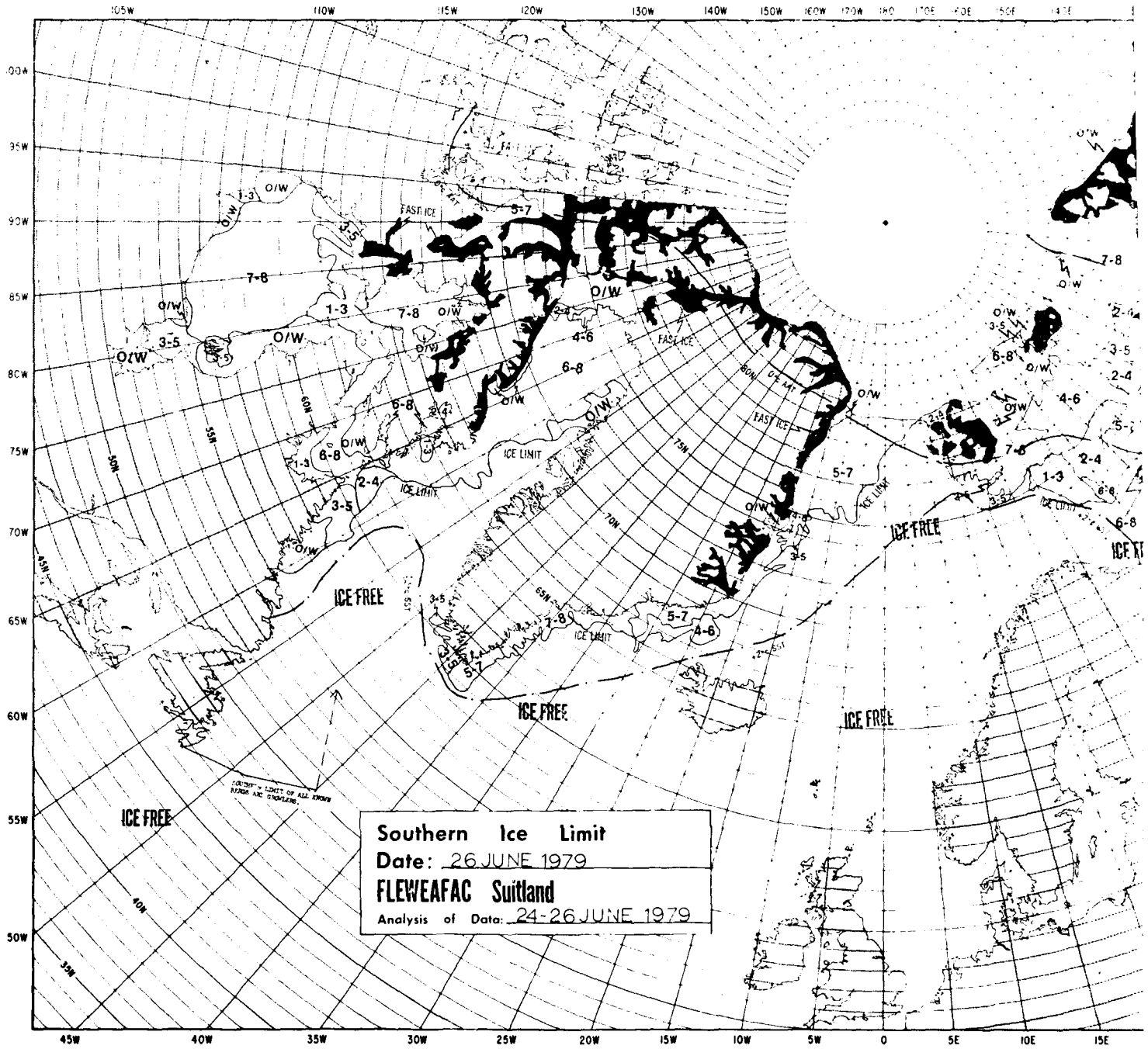
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15W
10W
5W
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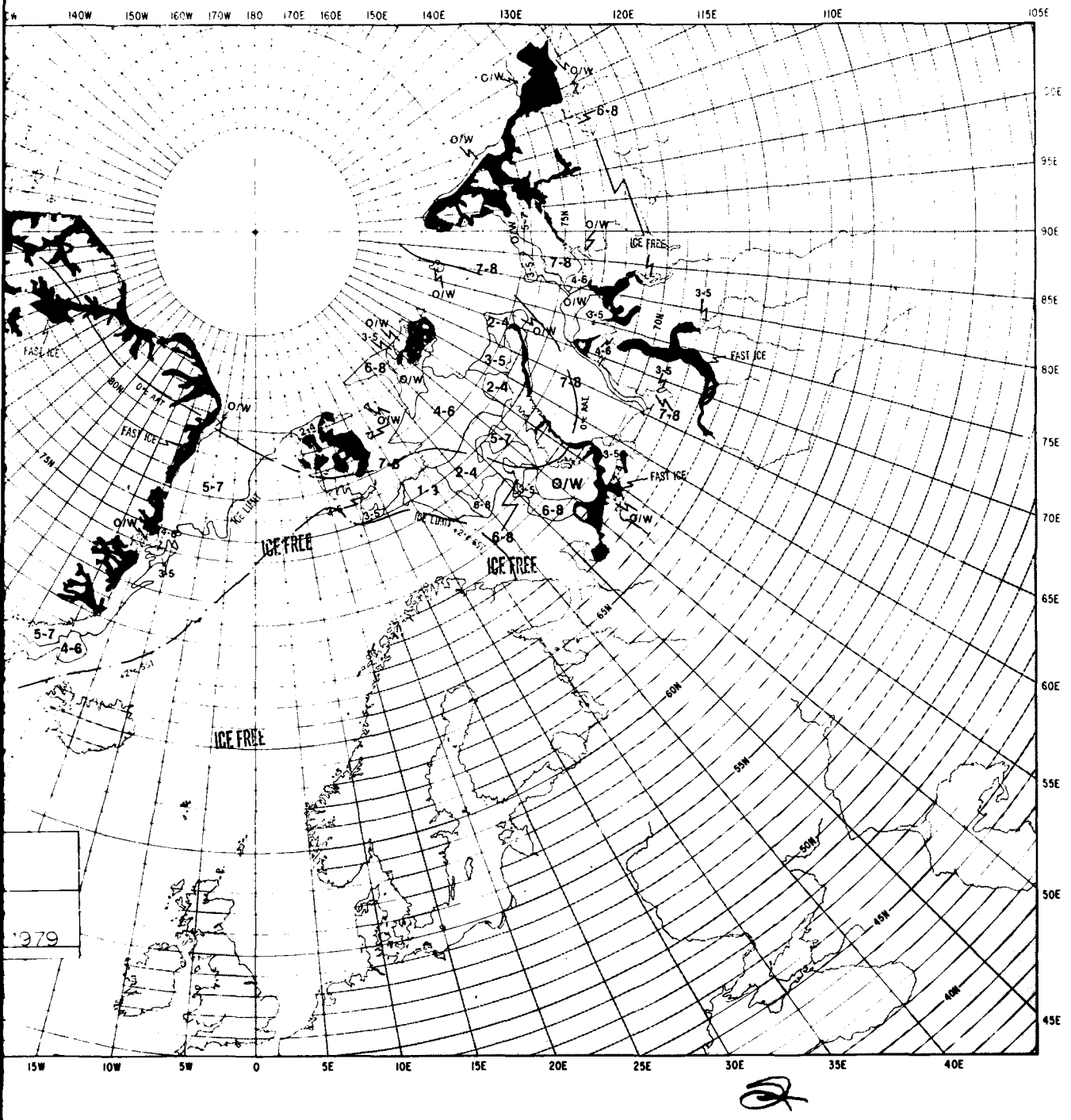
5E
10E
15E
ICE FREE
ICE LIMIT
FAST ICE
O/W
1-3
2-4
3-5
4-6
5-7
6-8
7-8
Southern Ice Limit
Date: 26 JUNE 1979
FLEWEAFAC Suitland
Analysis of Data: 24-26 JUNE 1979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ICE FREE
FAST ICE
O/W
6-8
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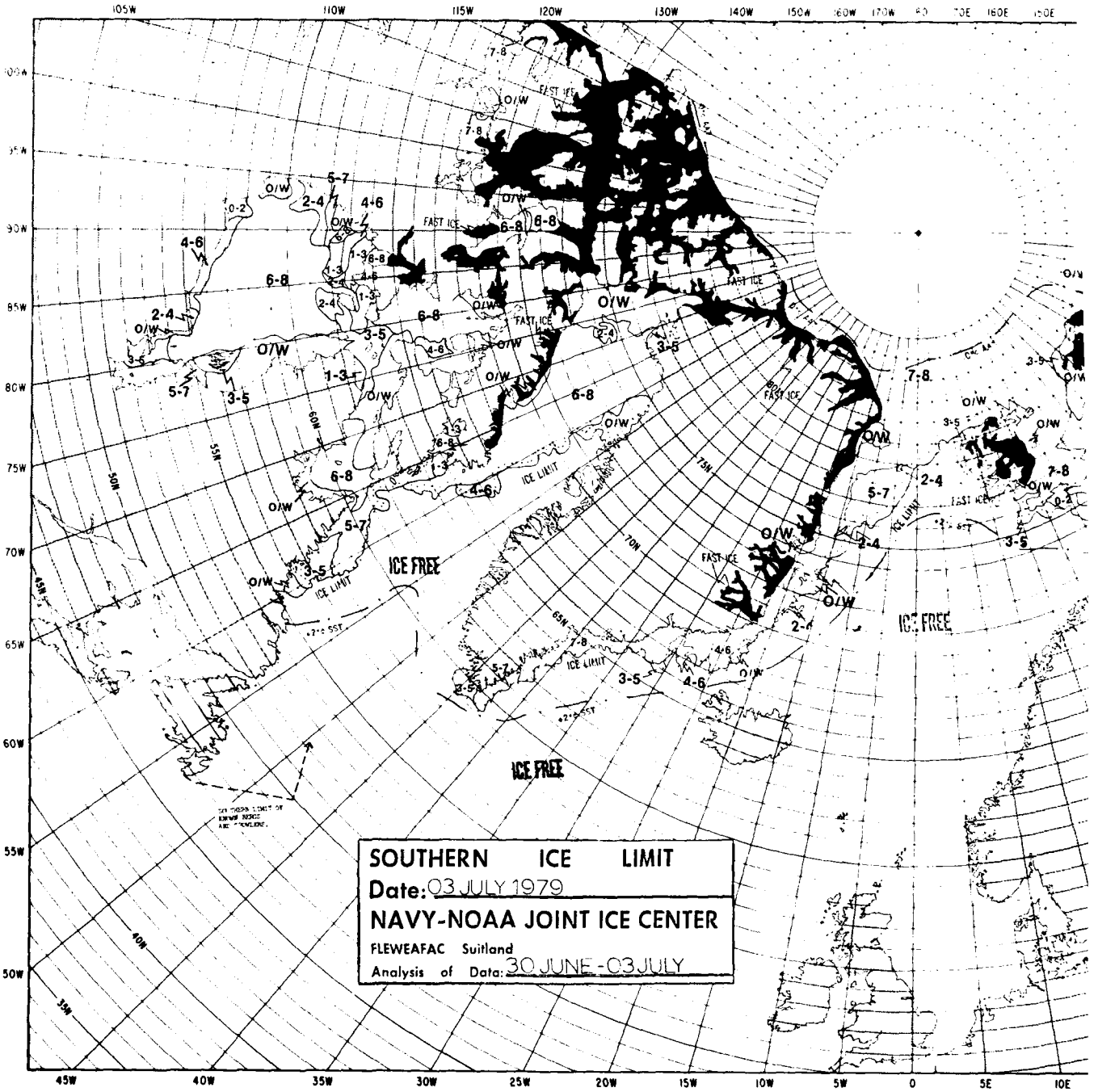
45N

1979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10W
5W
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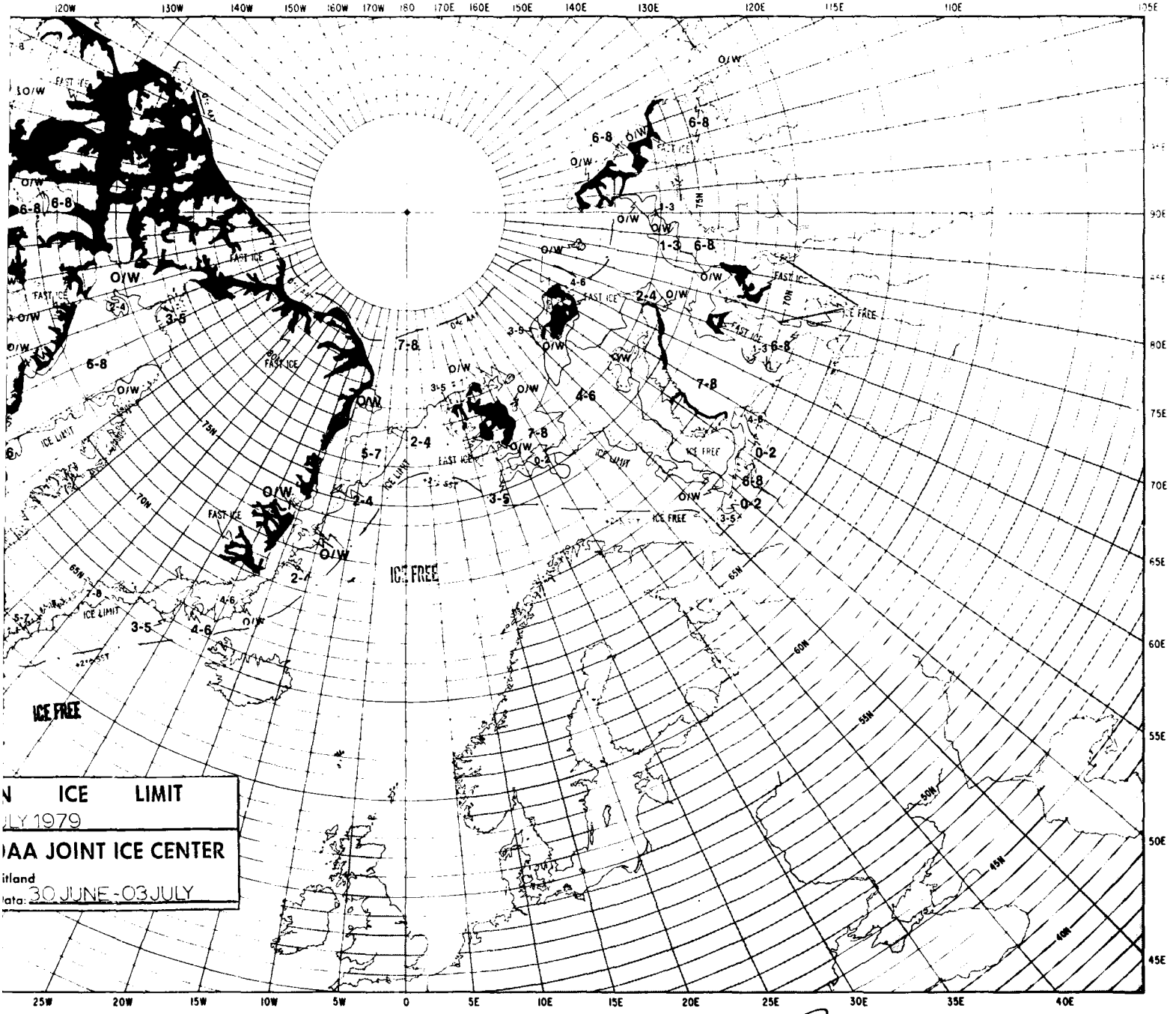
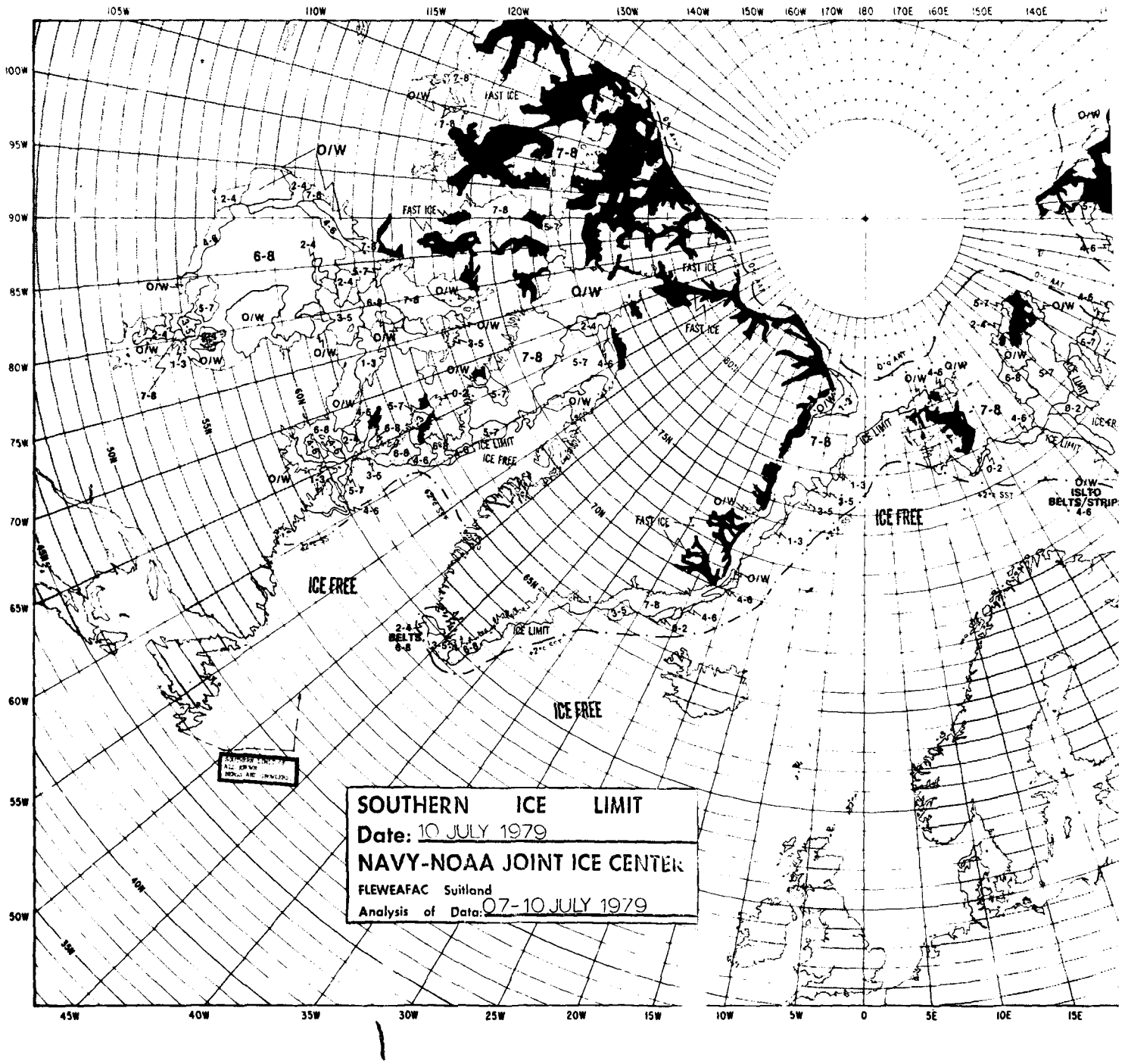
5E
10E
FAST ICE
O/W
ICE LIMIT
ICE FREE
SOUTHERN ICE LIMIT
Date: 03 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 30 JUNE - 03 JULY


ICE FREE
ICE LIMIT
FAST ICE
O/W
ICE LIMIT
JULY 1979
AA JOINT ICE CENTER
itland
ata: 30 JUNE - 03 JULY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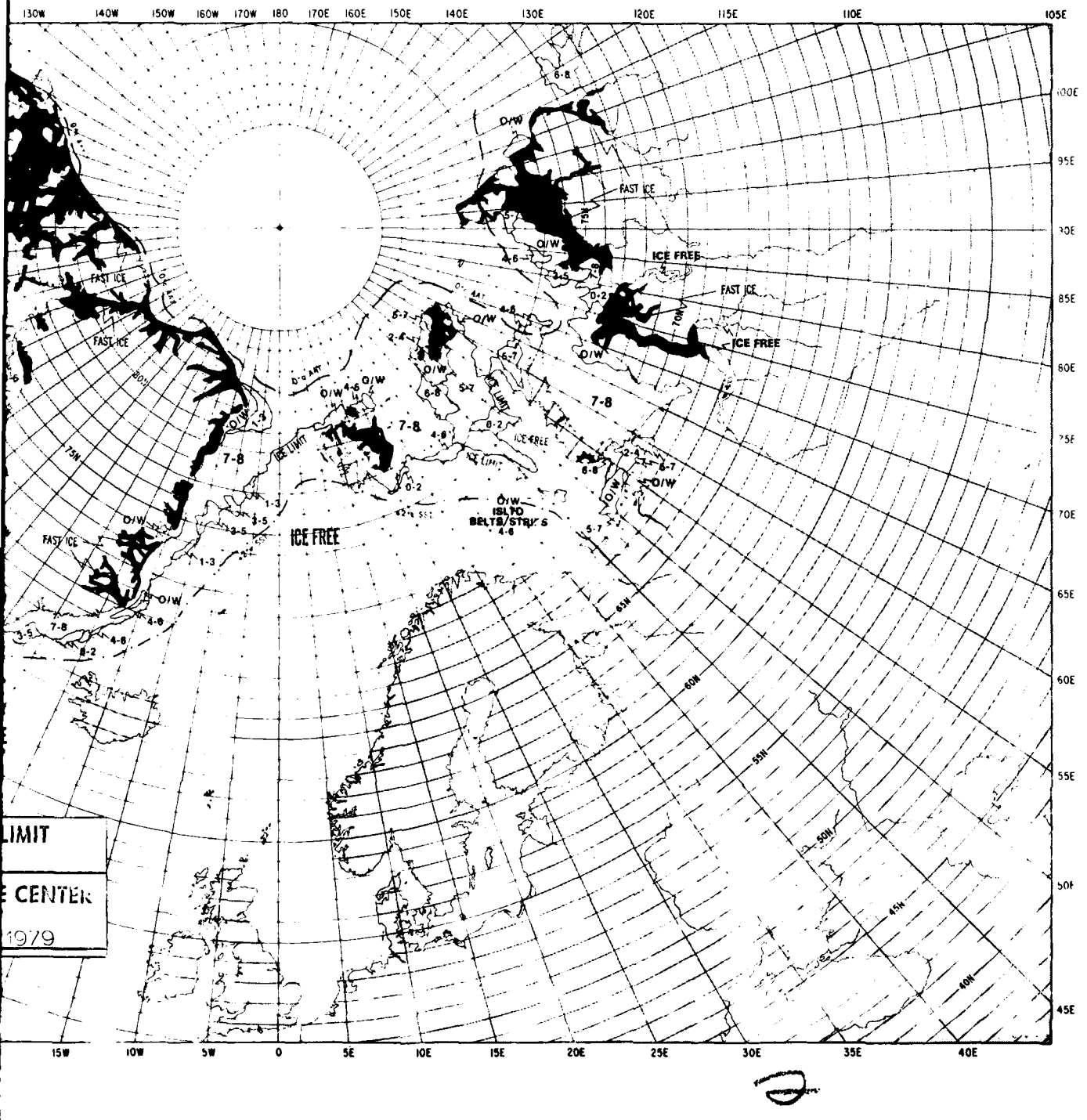
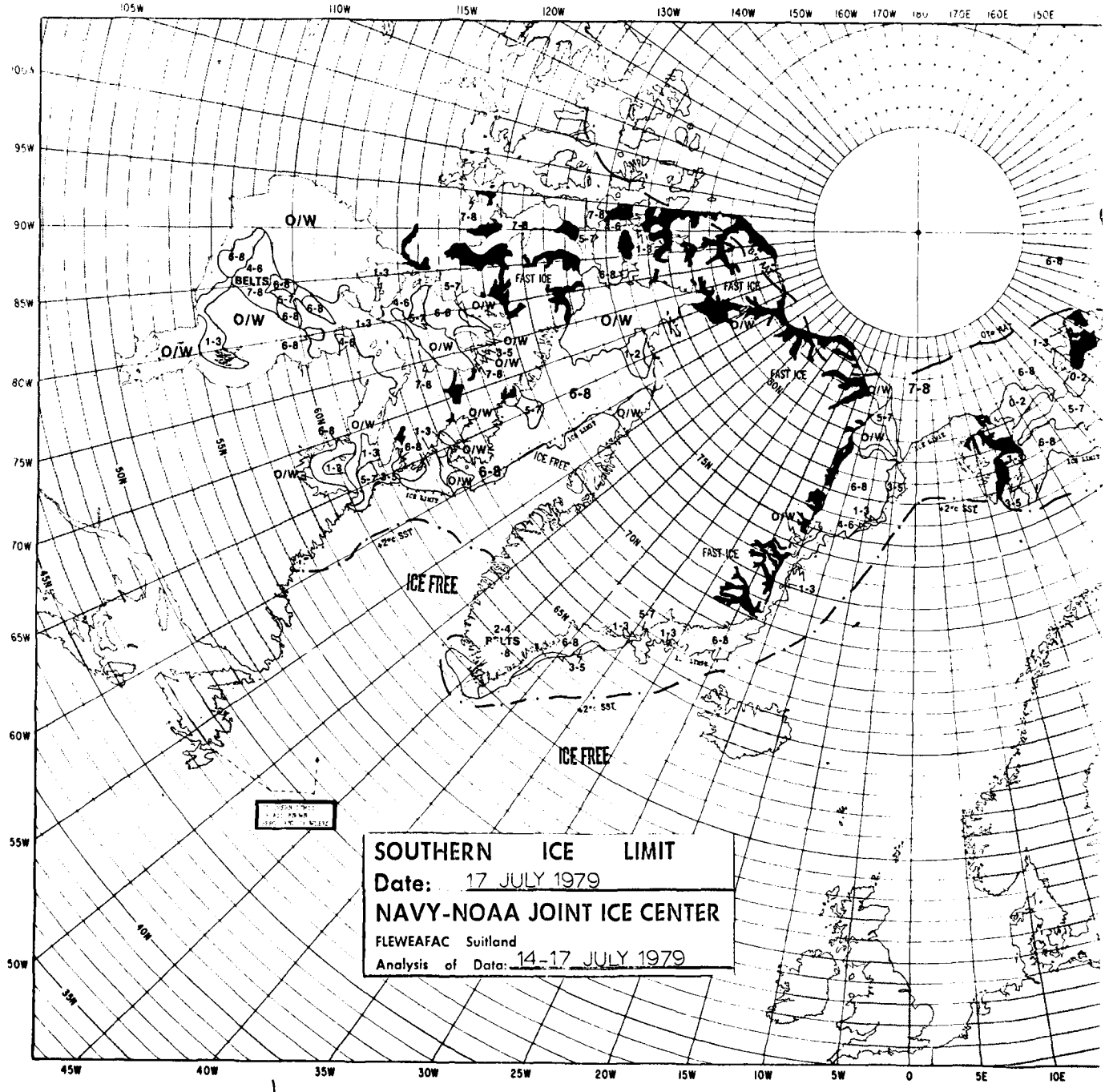
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
FAST ICE
O/W
6-8
7-8
ICE FREE
ICE LIMIT
SOUTHERN ICE LIMIT
Date: 10 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 07-10 JULY 1979



LIMIT

E CENTER

1979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70W
65W
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55W
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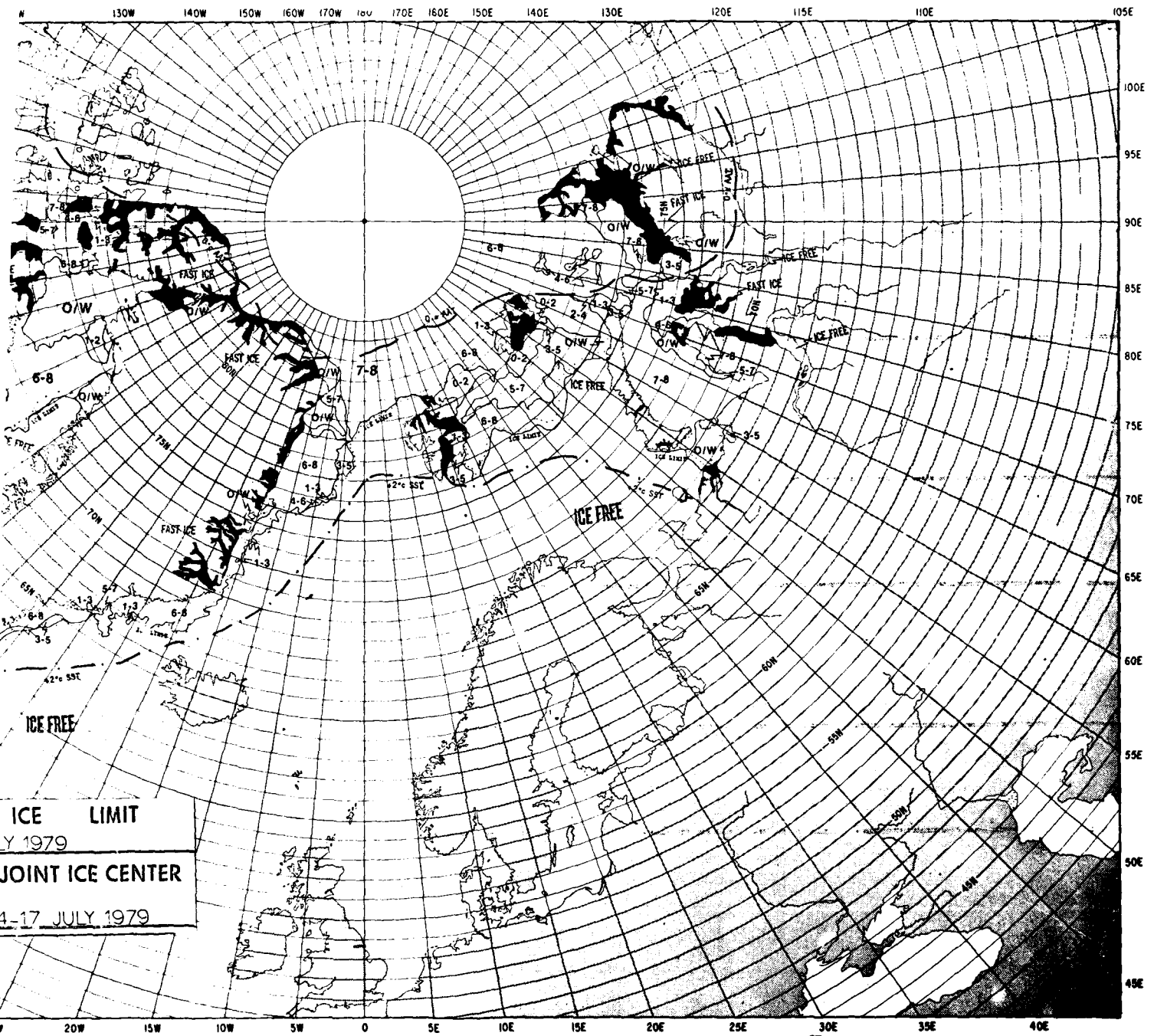
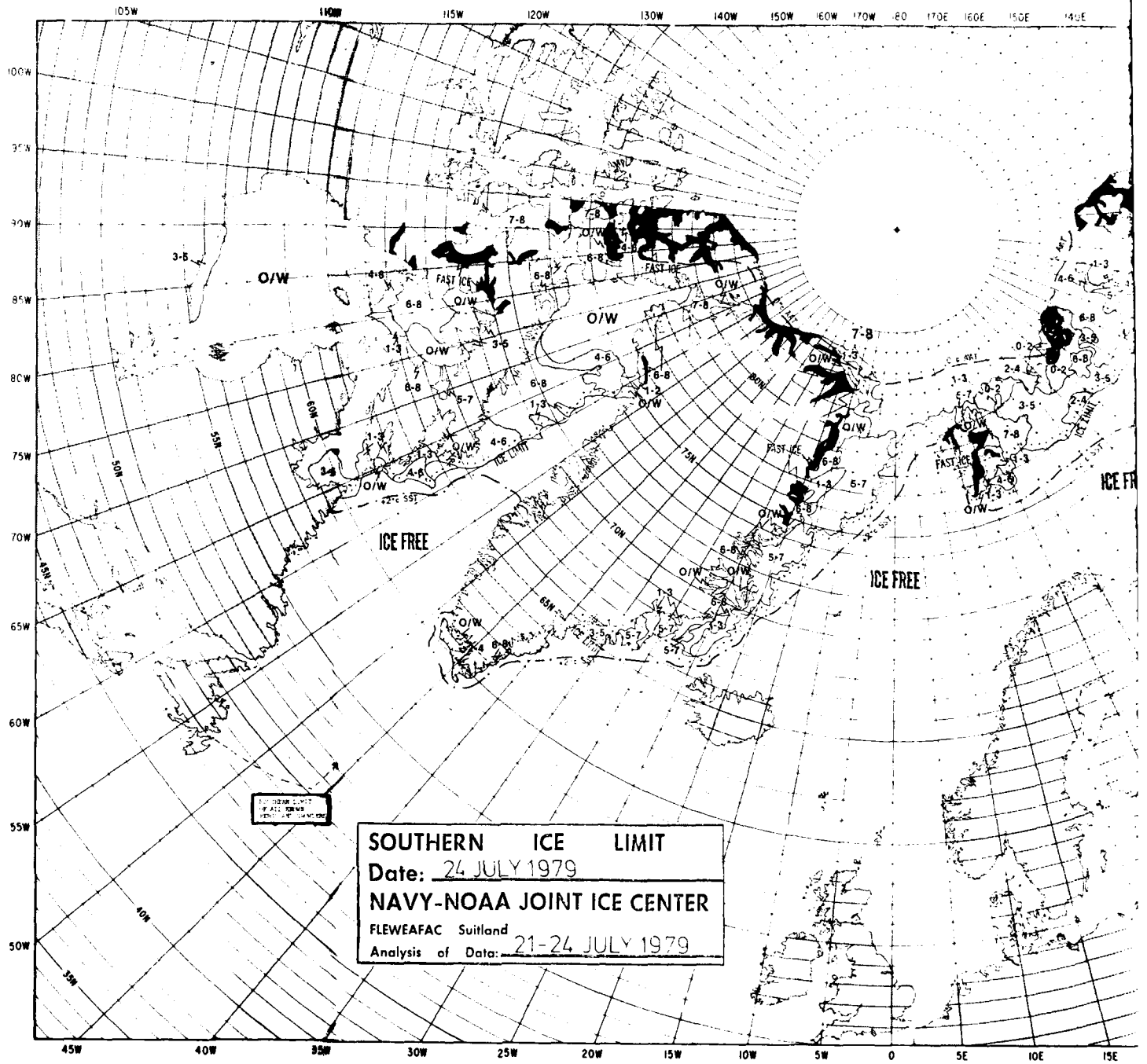
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
O/W
FAST ICE
ICE FREE
BELTS
SOUTHERN ICE LIMIT
Date: 17 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 14-17 JULY 1979


ICE FREE
FAST ICE
O/W
ICE LIMIT
Y 1979
JOINT ICE CENTER
4-17 JULY 1979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140E
100W
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75W
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55W
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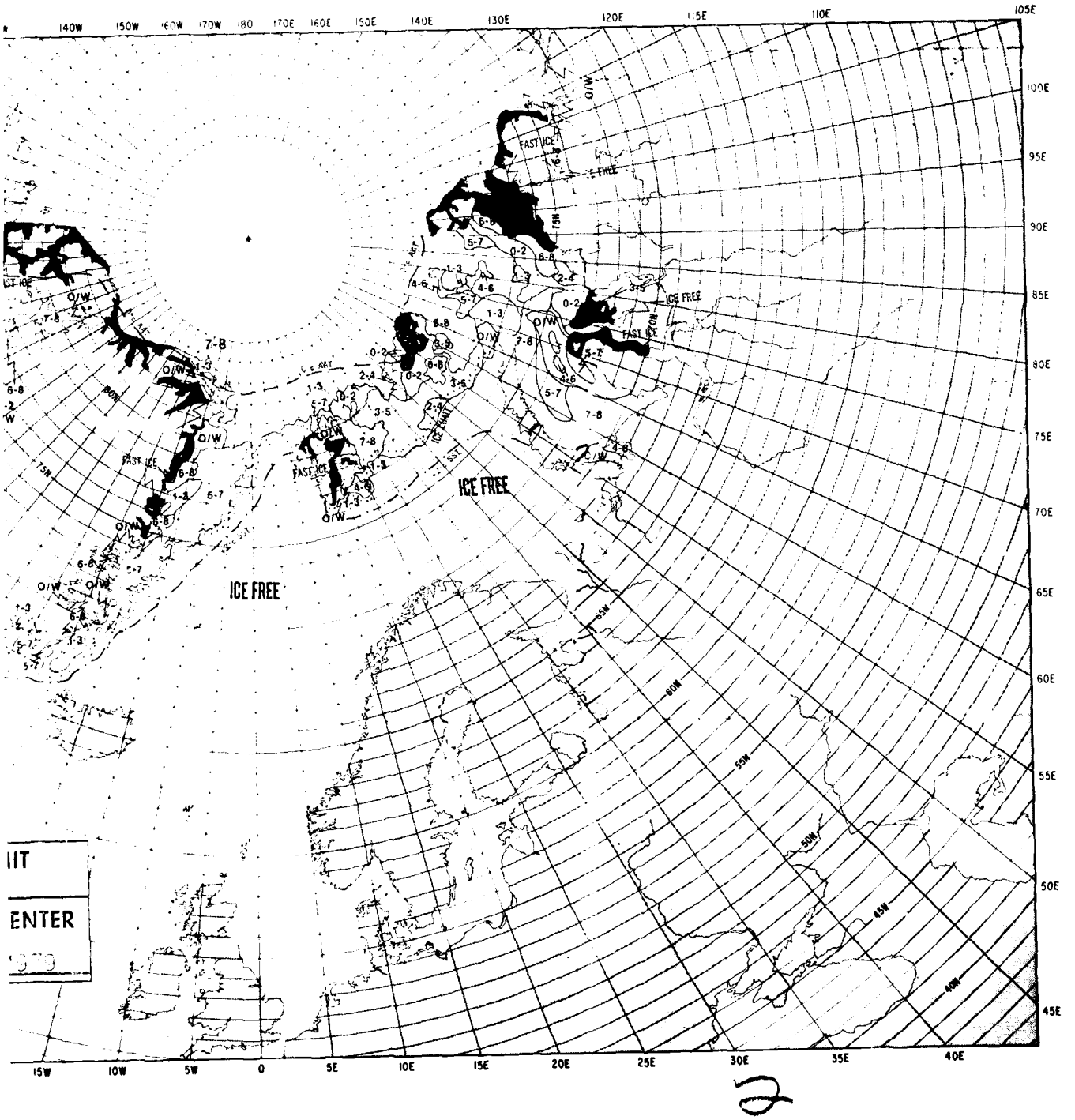
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
O/W
FAST ICE
ICE FREE
ICE LIMIT
SOUTHERN ICE LIMIT
Date: 24 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 21-24 JULY 1979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140E
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115E
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105E
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90E
85E
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45E
15W
10W
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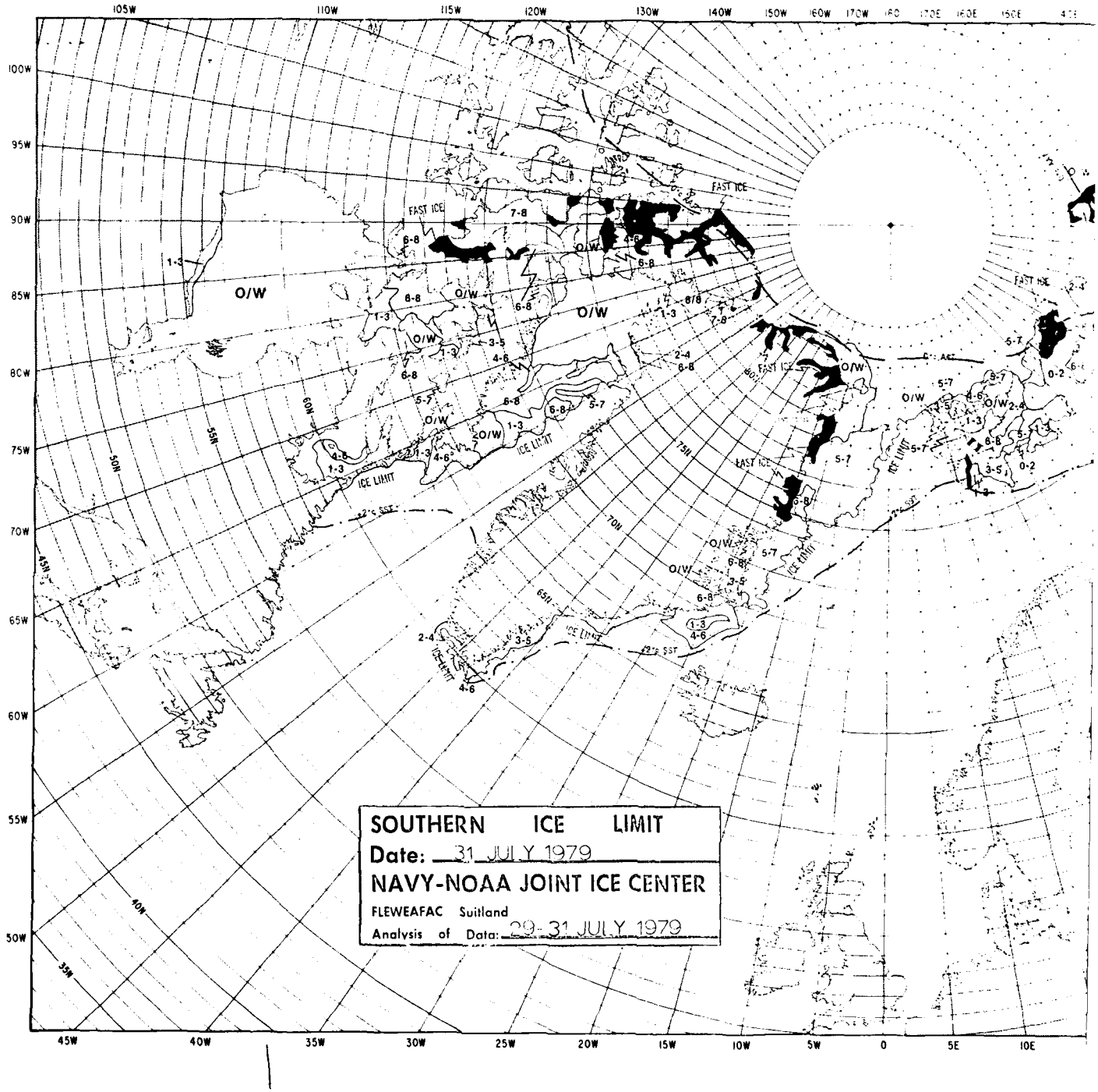
5E
10E
15E
20E
25E
30E
35E
40E
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
O/W
75N
60N
55N
50N
45N
40N
ENTER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30W
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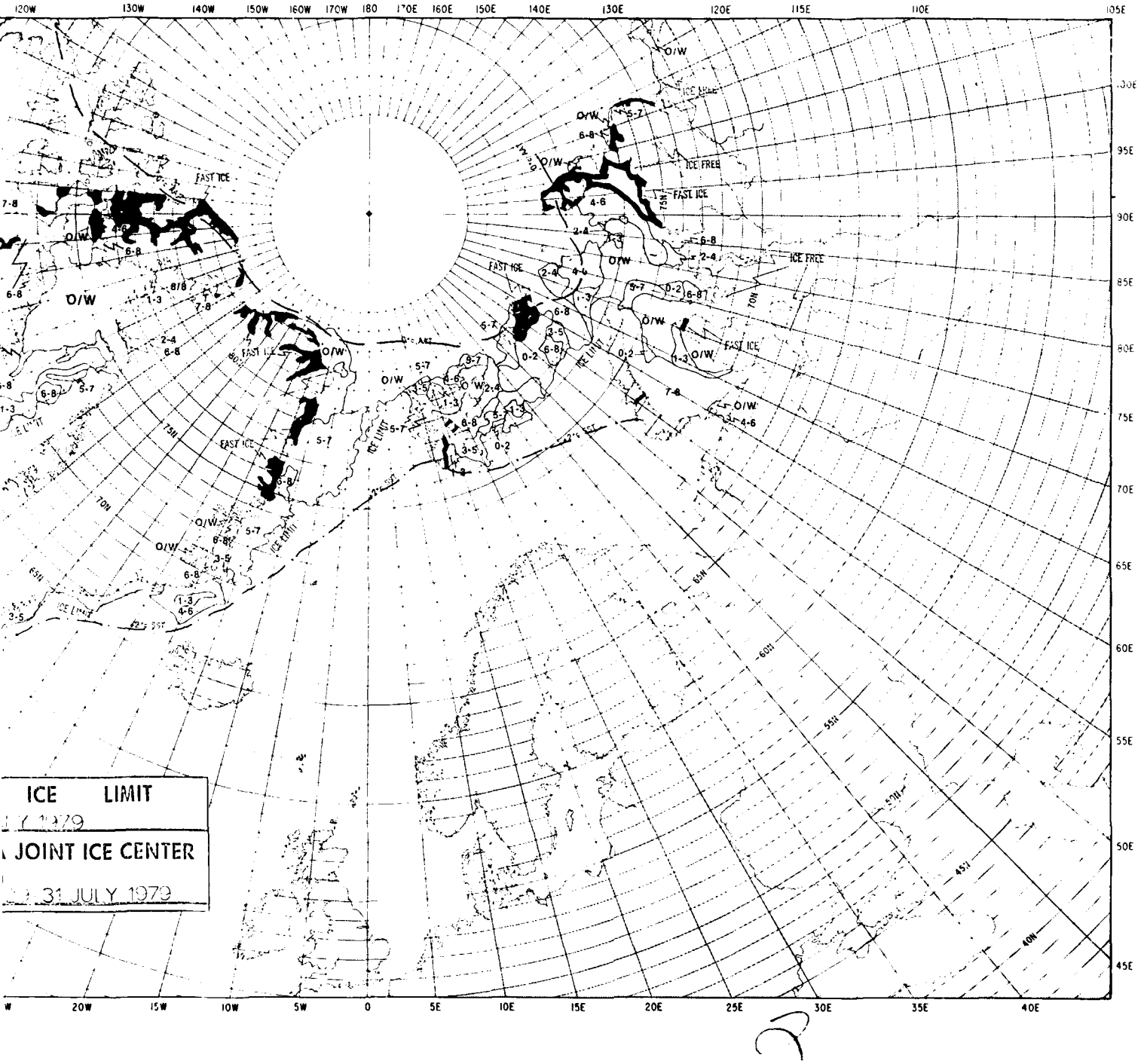
20W
15W
10W
5W
0
5E
10E
FAST ICE
O/W
ICE LIMIT
SOUTHERN ICE LIMIT
Date: 31 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 29-31 JULY 1979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45N
50N
55N
60N
65N
70N
75N
ICE FREE
FAST ICE
O/W
ICE LIMIT
ICE LIMIT
JOINT ICE CENTER
31 JULY 1979
20W
15W
10W
5W
0
5E
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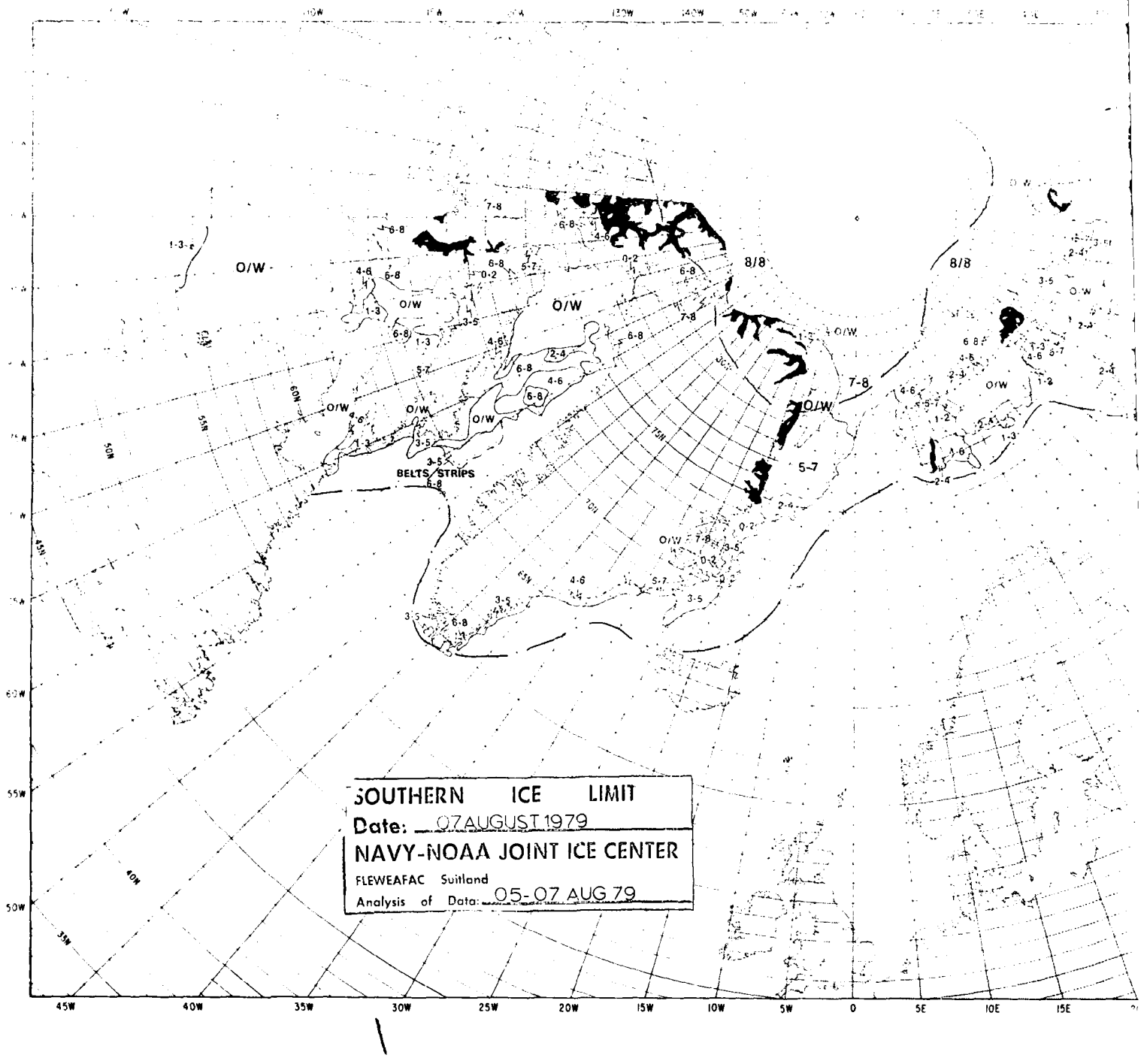
15E
20E
25E
30E
35E
40E


O/W
8/8
7-8
5-7
BELTS/STRIPS
SOUTHERN ICE LIMIT
Date: 07 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 05-07 AUG 79
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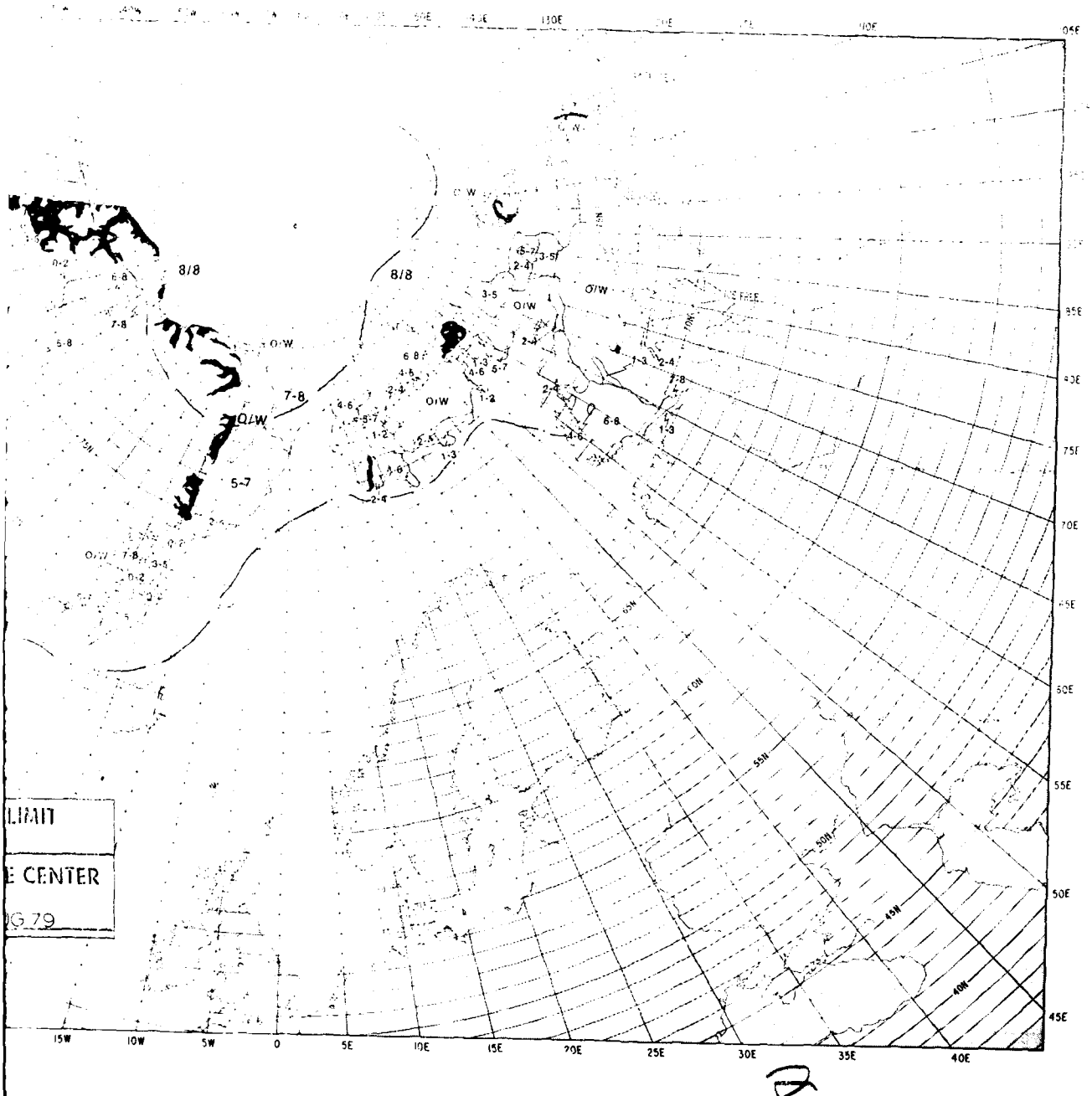
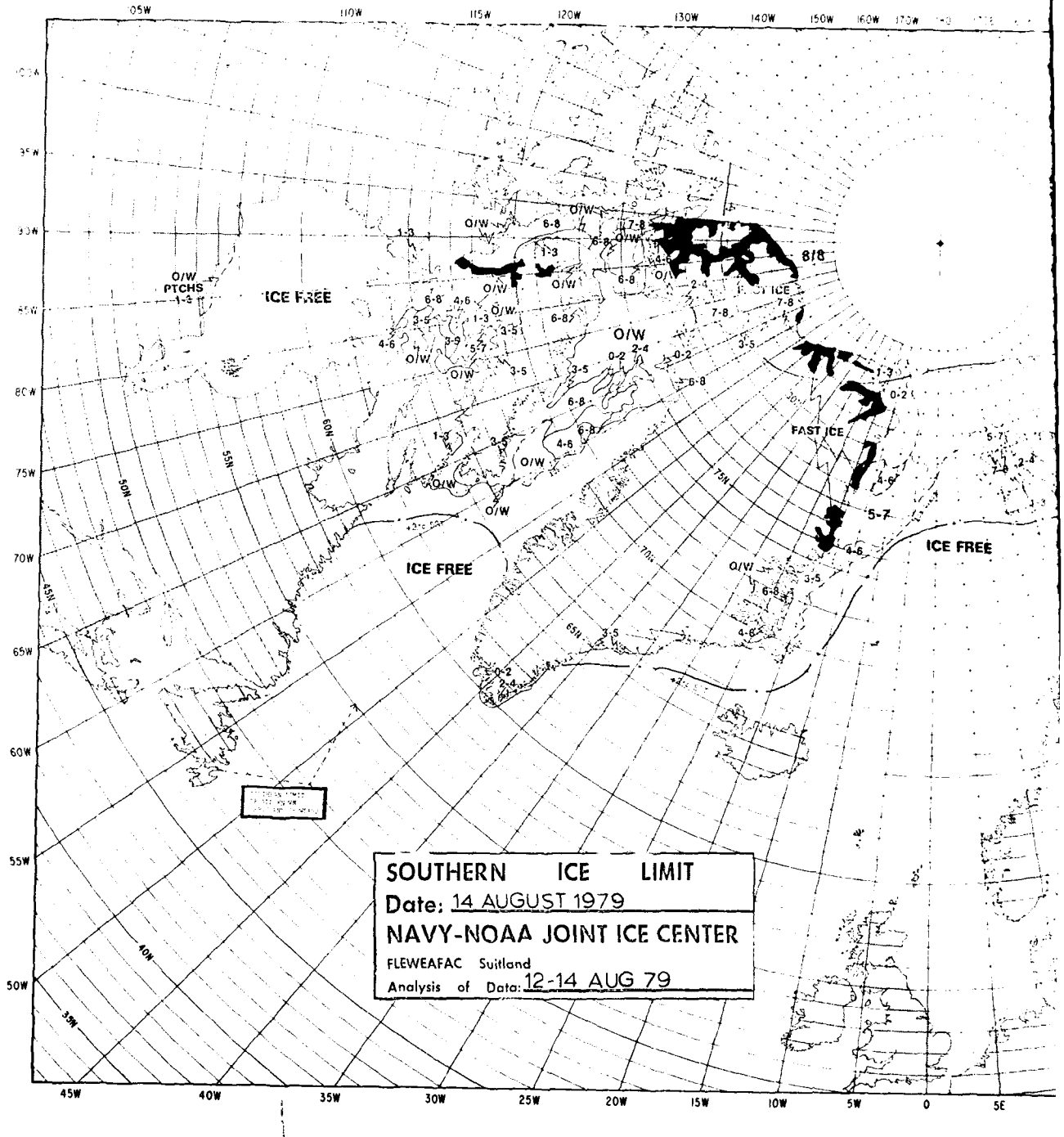
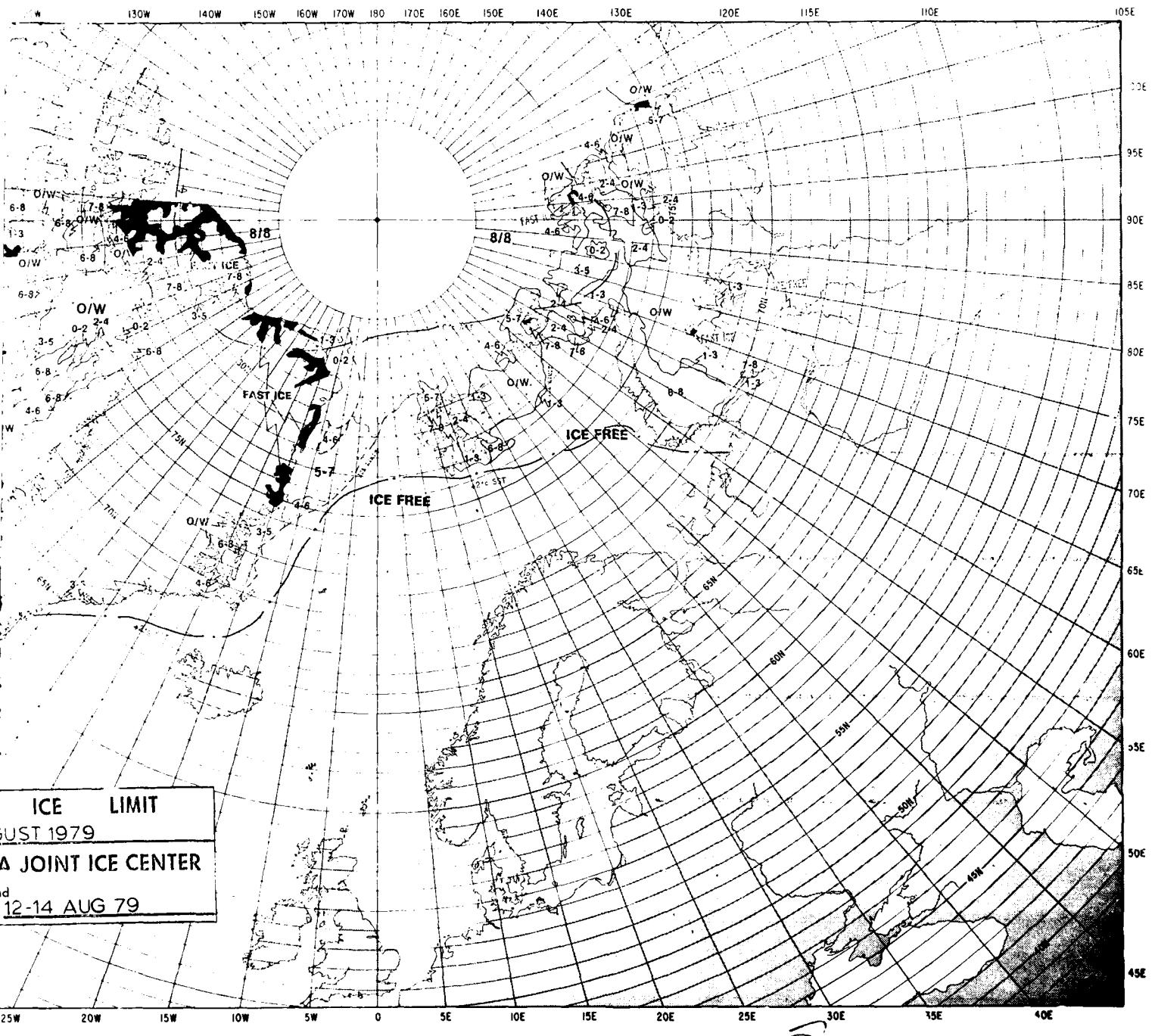
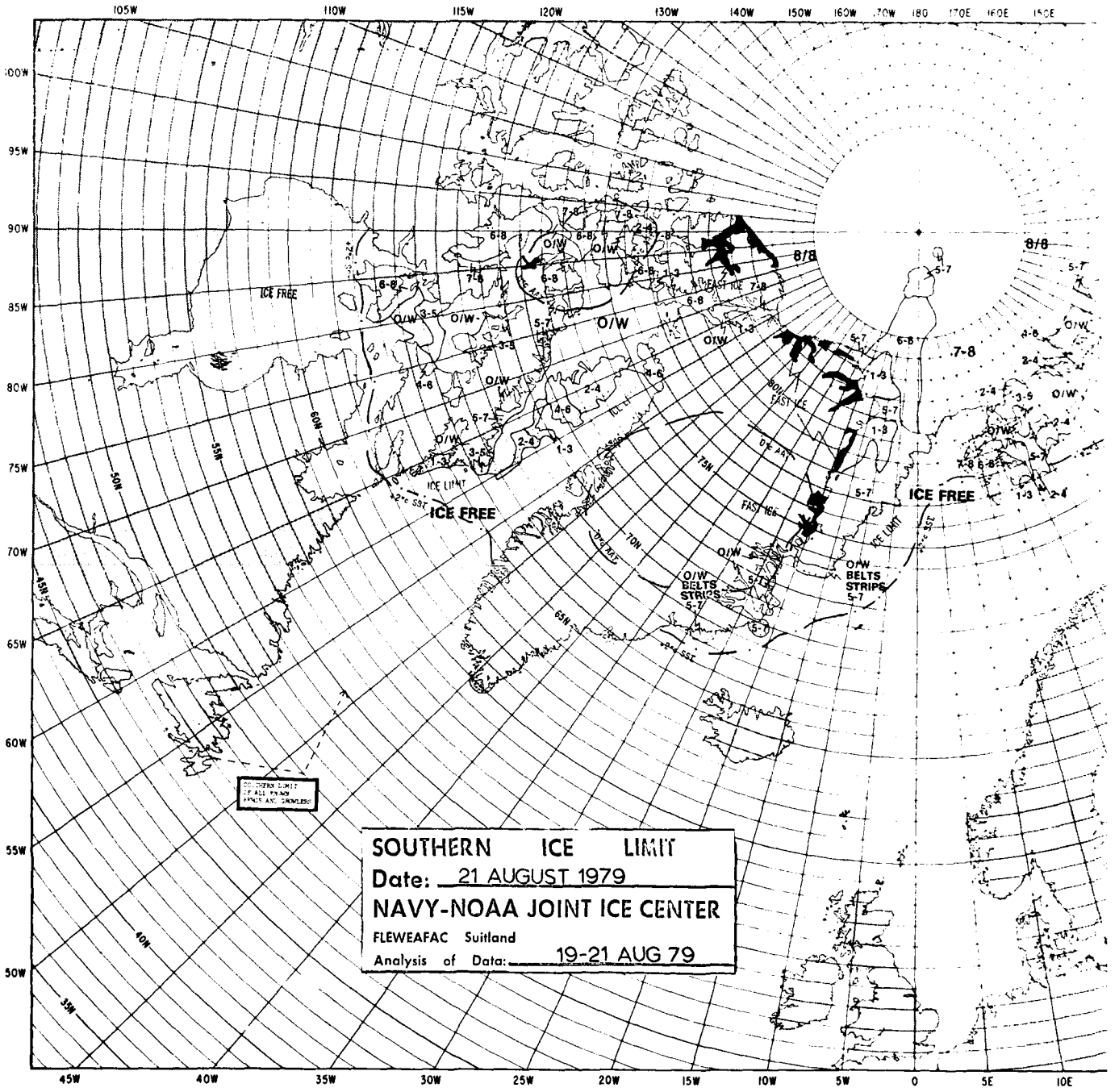
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E


8/8
8/8
7-8
5-7
O/W
O/W
O/W


ICE FREE
O/W
PTCHS
1-3
ICE FREE
FAST ICE
ICE FREE
8/8
SOUTHERN ICE LIMIT
Date: 14 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 12-14 AUG 79



ICE LIMIT
GUST 1979
A JOINT ICE CENTER
d
12-14 AUG 79


105W
110W
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170W
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170E
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100W
95W
90W
85W
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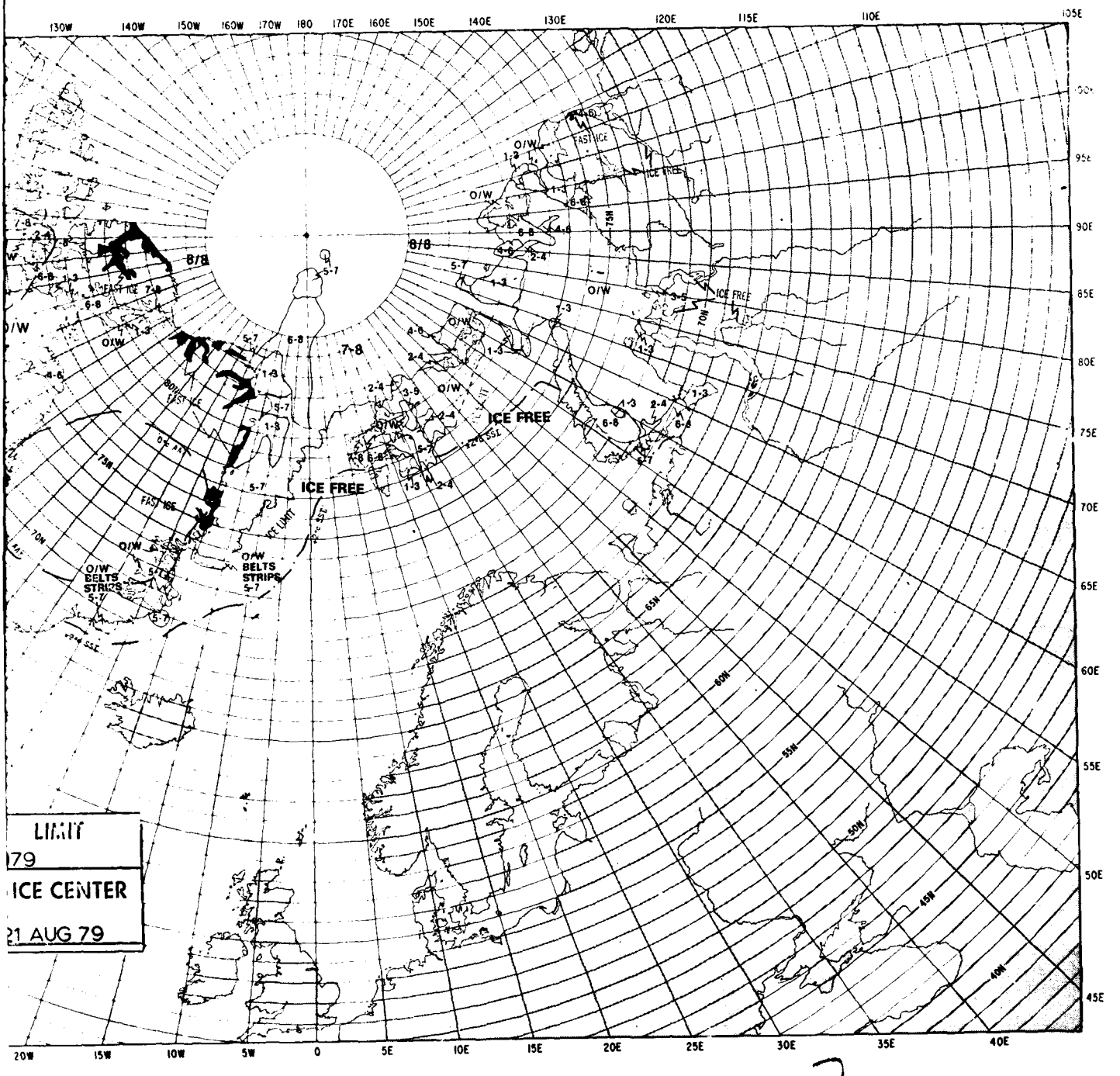
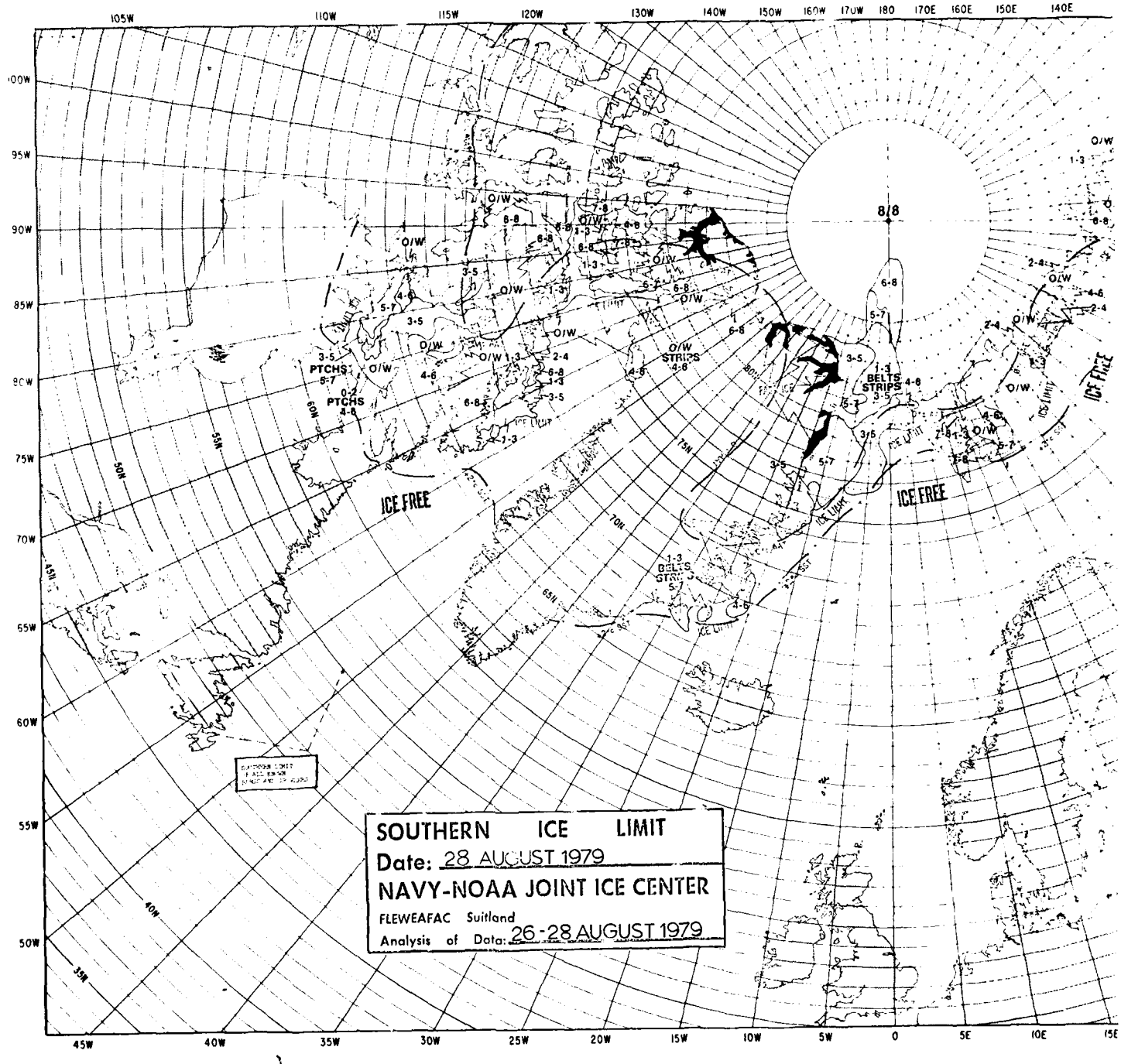
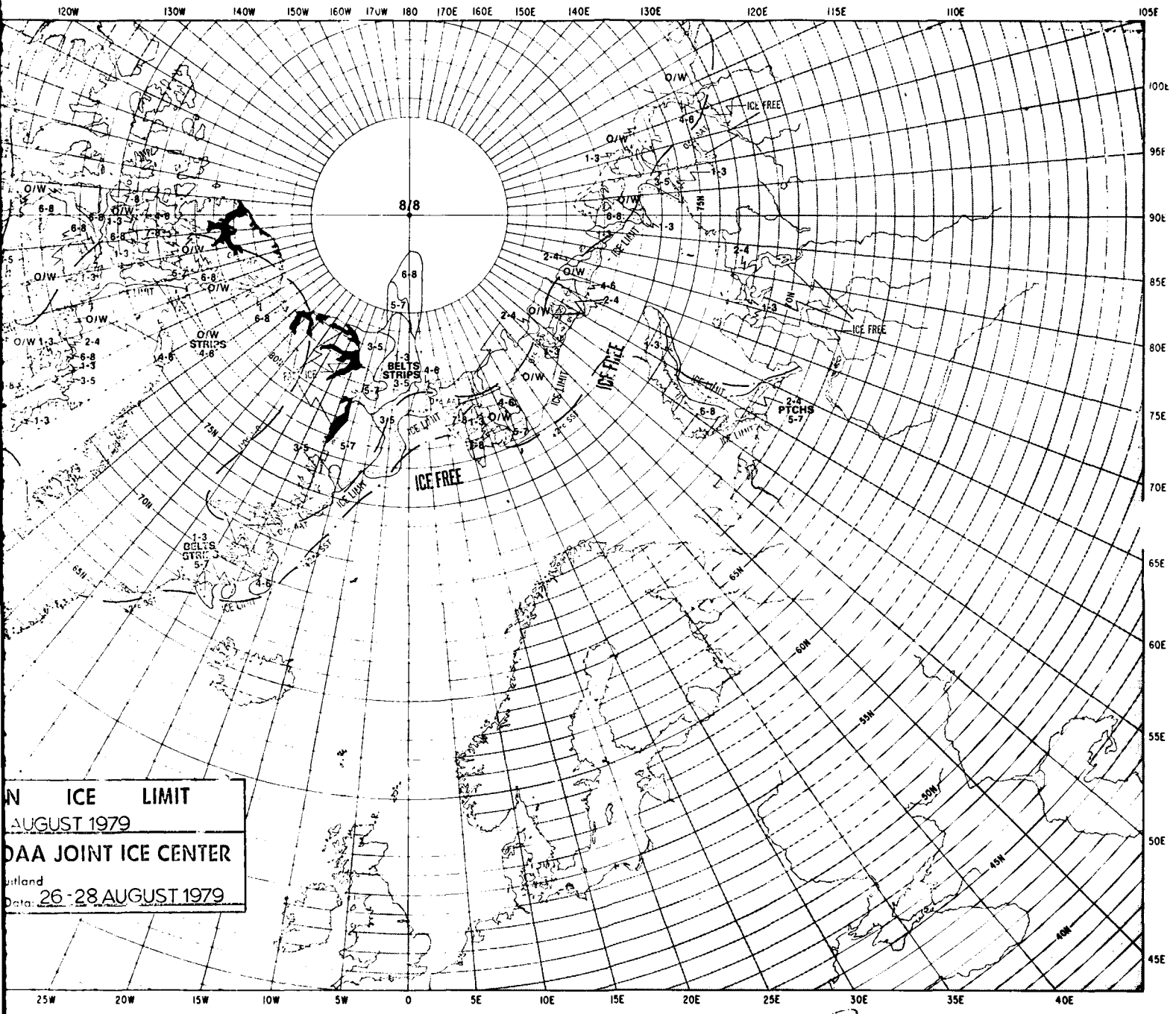
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
ICE FREE
O/W
8/8
7-8
FAST ICE
ICE LIMIT
12° SST
O/W BELTS STRIPS 5-7
SOUTHERN ICE LIMIT
Date: 21 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 19-21 AUG 79

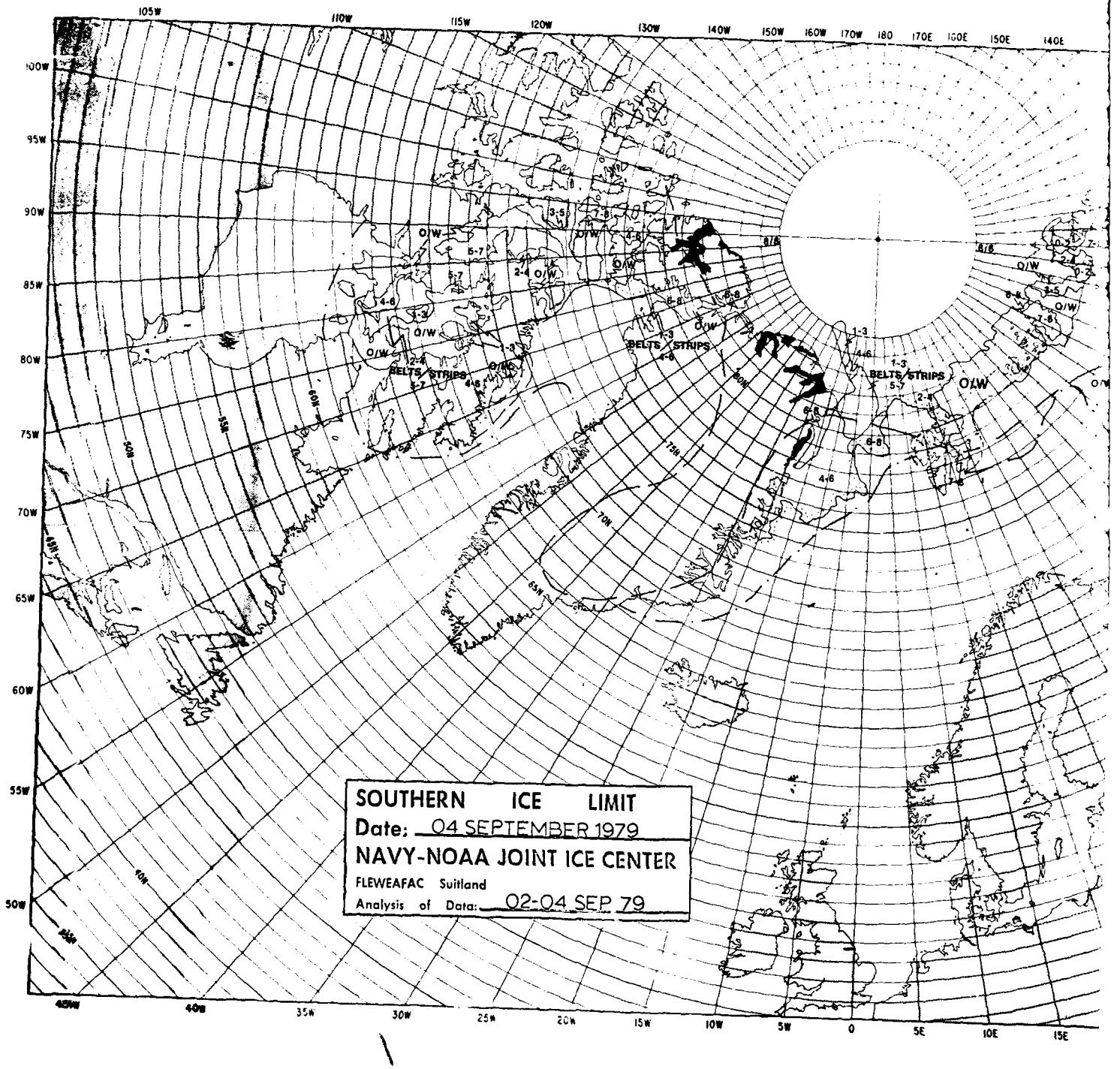


LIMIT
79
ICE CENTER
21 AUG 79

2


SOUTHERN ICE LIMIT
Date: 28 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 26-28 AUGUST 1979
ICE FREE
ICE FREE
ICE FREE
PTCHS
PTCHS
O/W STRIPS
BELTS STRIPS
BELTS STRIPS
O/W
8/8
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E


120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
40E
35E
30E
25E
20E
15E
10E
5E
0
5W
10W
15W
20W
25W
8/8
ICE FREE
ICE FREE
ICE FREE
O/W
O/W STRIPS 4-6
1-3 BELTS STRIPS 3-5
2-4 PTCHS 5-7
ICE LIMIT
75N
70N
65N
60N
55N
50N
45N
40N
N ICE LIMIT
AUGUST 1979
DAA JOINT ICE CENTER
Data: 26 - 28 AUGUST 1979


105W
110W
115W
120W
130W
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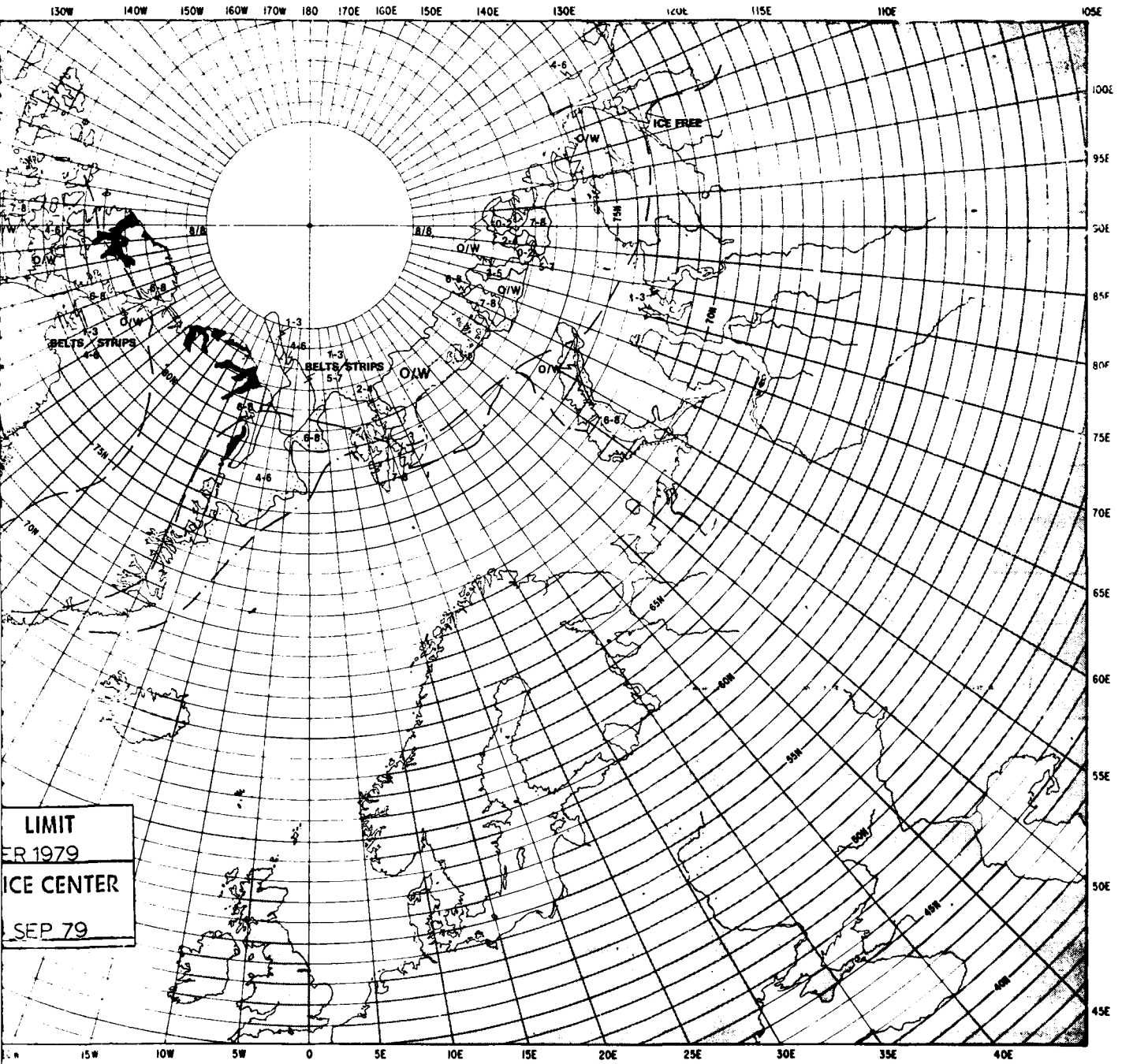
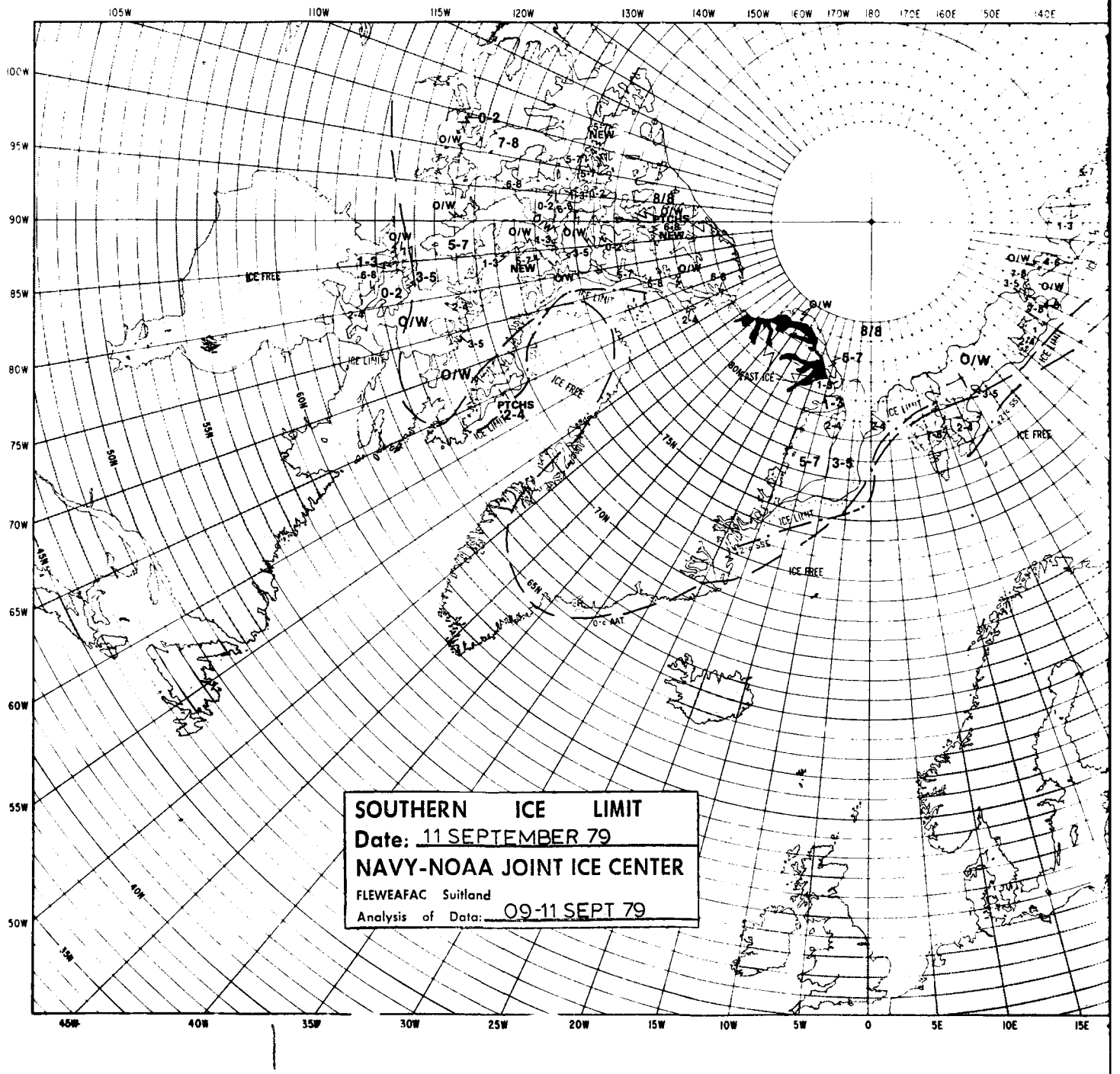
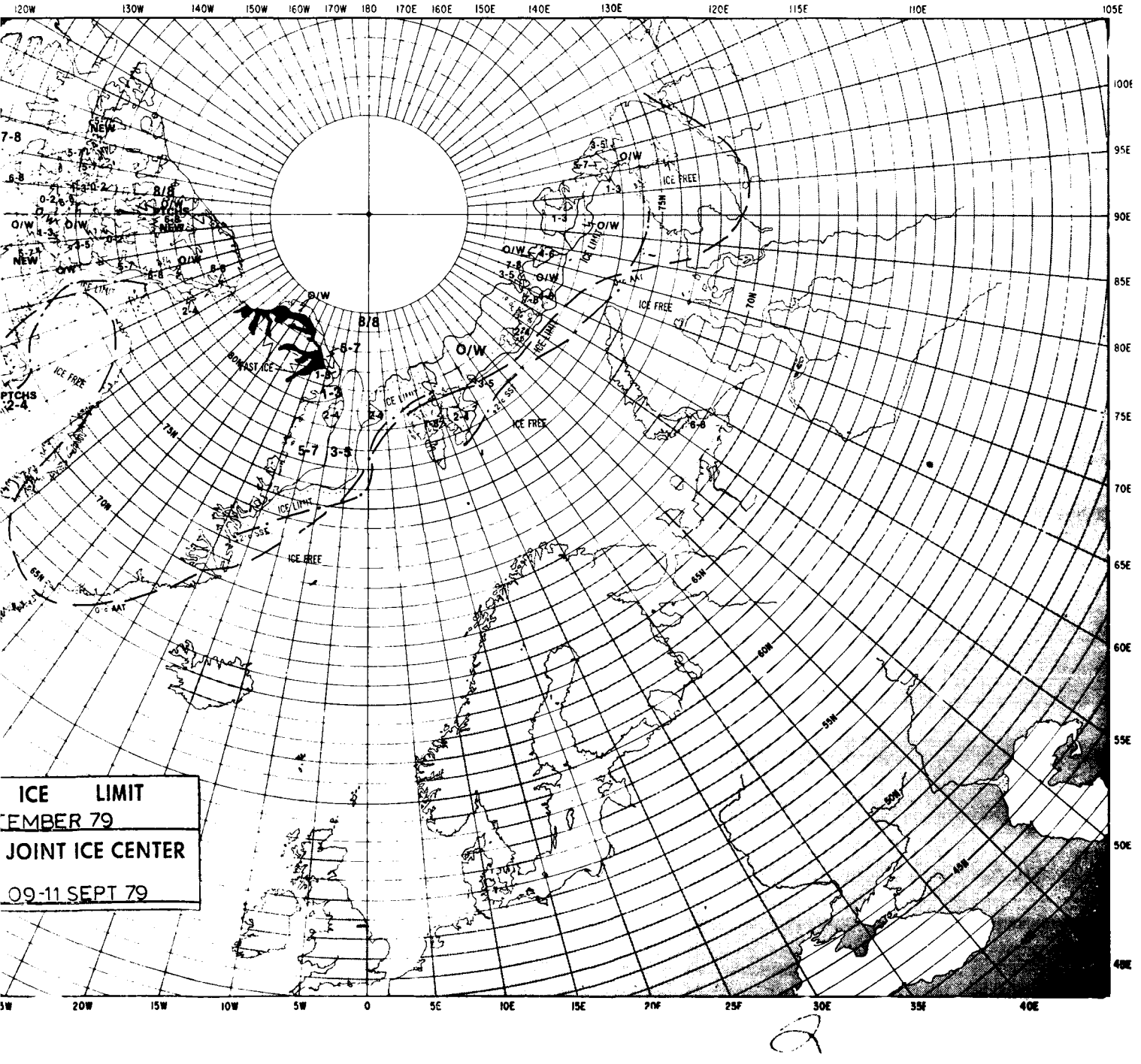
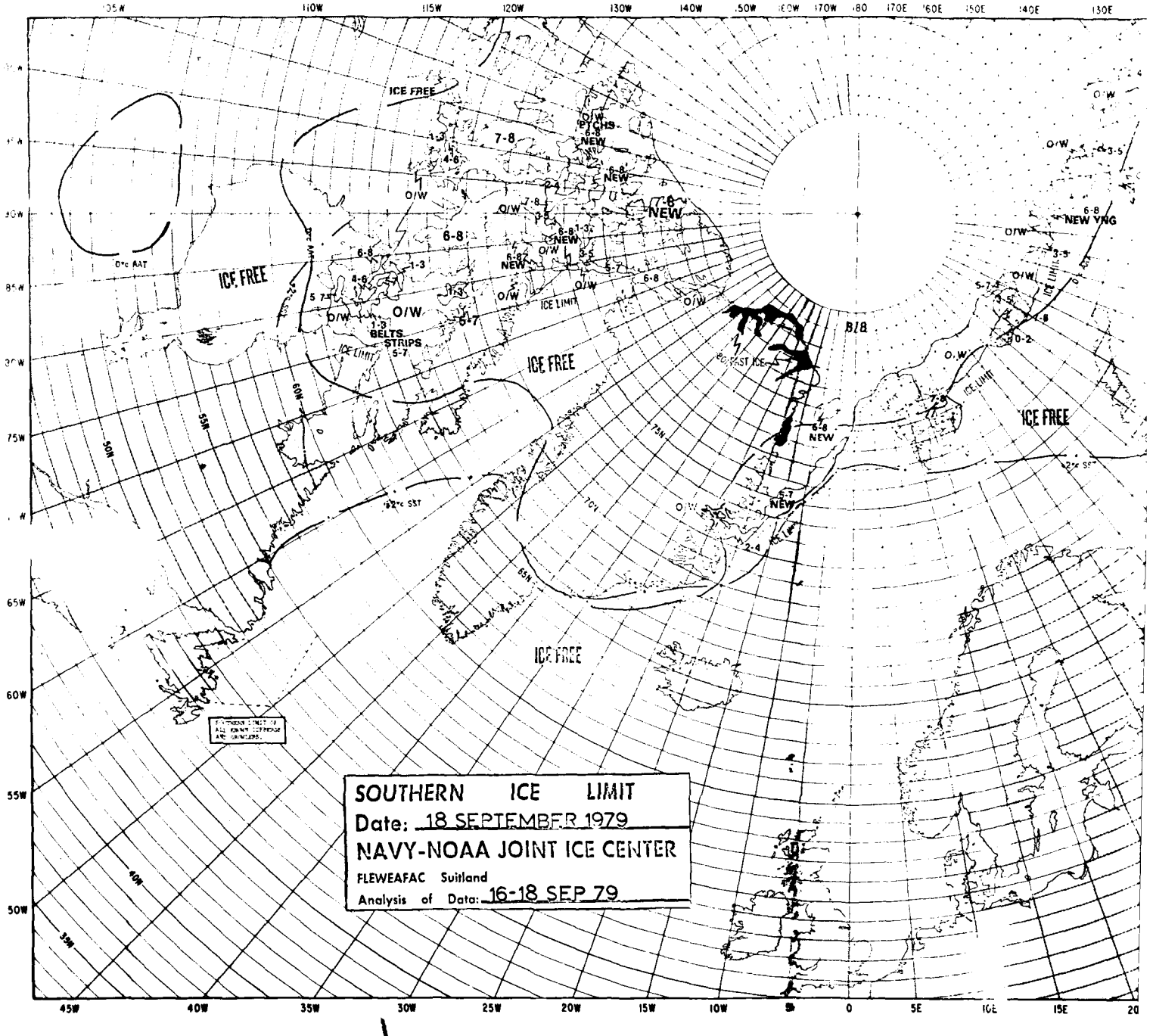
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
O/W
BELTS/STRIPS
8/8
SOUTHERN ICE LIMIT
Date: 04 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 02-04 SEP 79

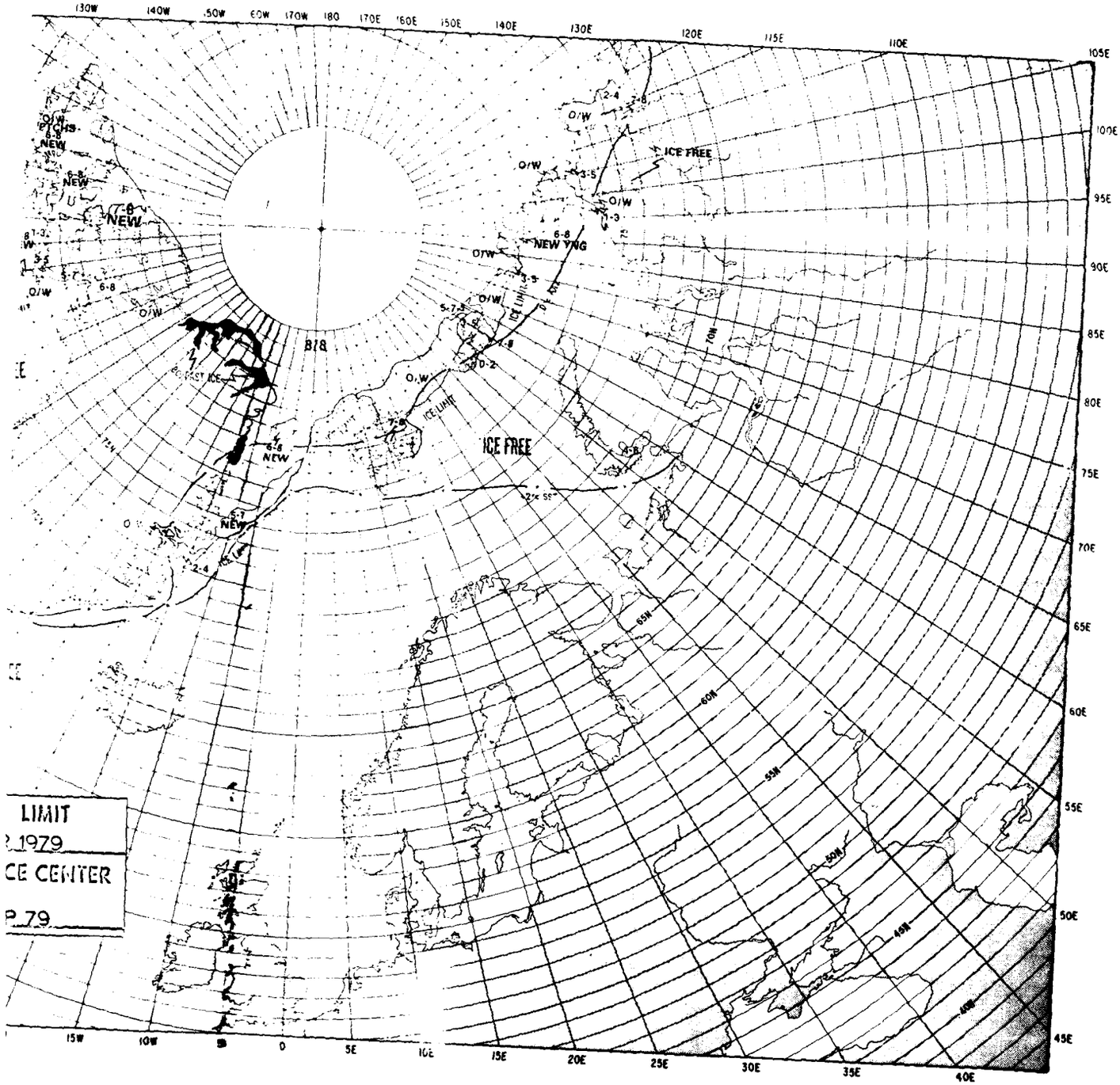


LIMIT
ER 1979
ICE CENTER
SEP 79

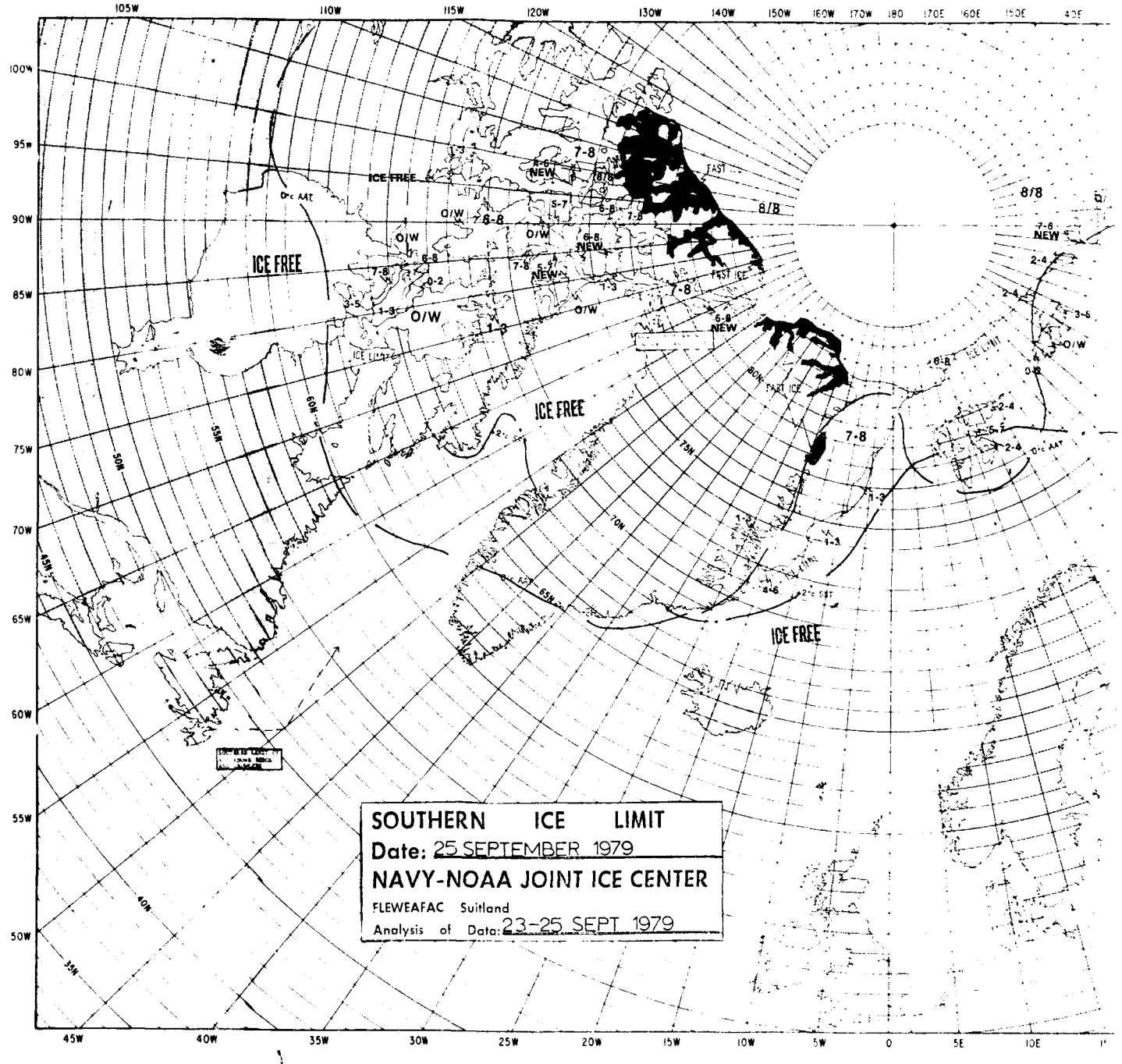

SOUTHERN ICE LIMIT
Date: 11 SEPTEMBER 79
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 09-11 SEPT 79
ICE FREE
ICE LIMIT
O/W
NEW
PTCHS
EAST ICE
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E

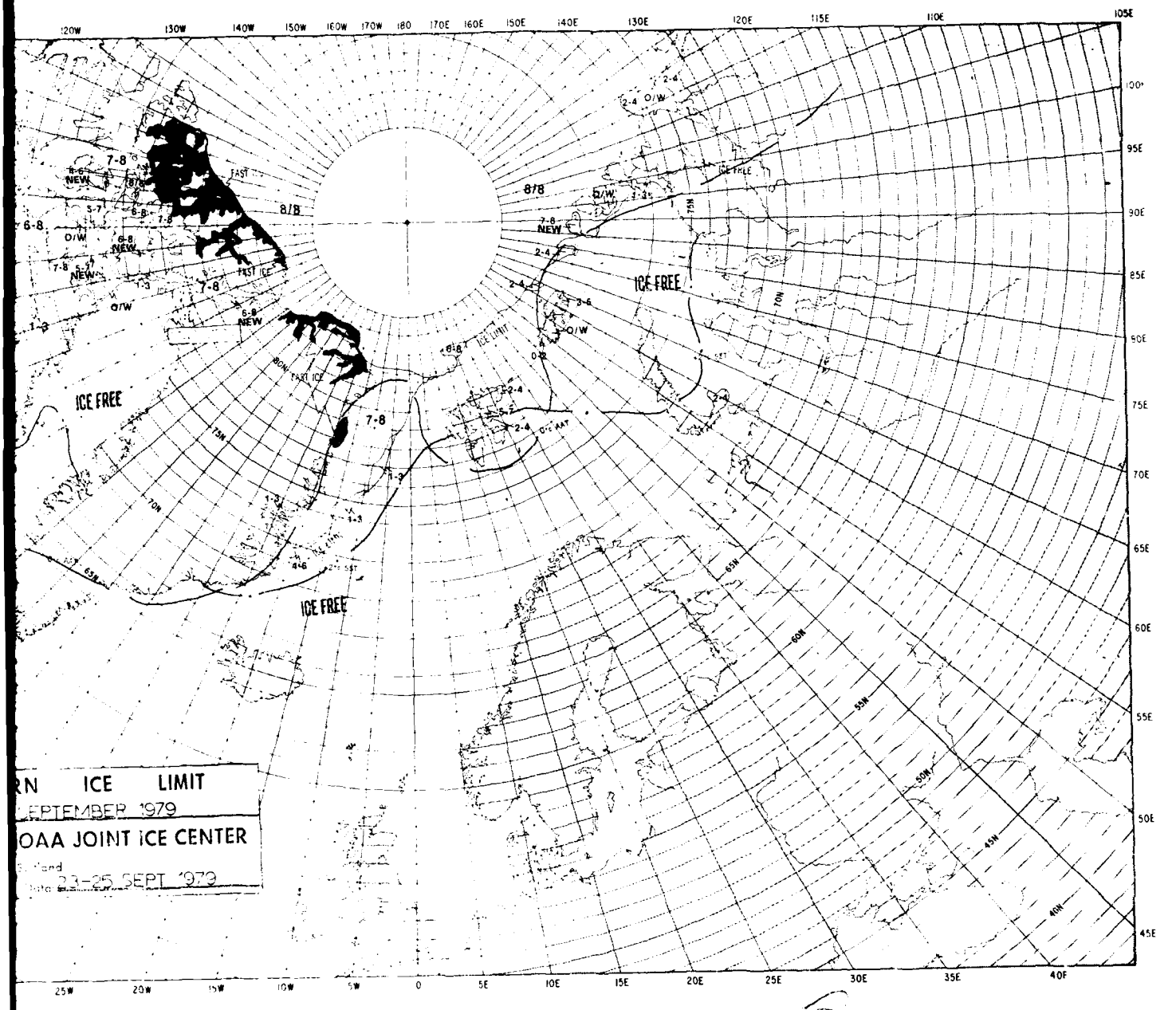

ICE LIMIT
EMBER 79
JOINT ICE CENTER
09-11 SEPT 79


SOUTHERN ICE LIMIT
Date: 18 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 16-18 SEP 79
ICE FREE
ICE LIMIT
BELTS STRIPS
PTCHS
NEW
NEW YNG
O/W
FAST ICE
B/8
110W
115W
120W
130W
140W
150W
170W
170E
160E
150E
140E
130E
45W
40W
35W
30W
25W
20W
15W
10W
0
5E
10E
15E
65W
60W
55W
50W
75W
80W
85W
90W

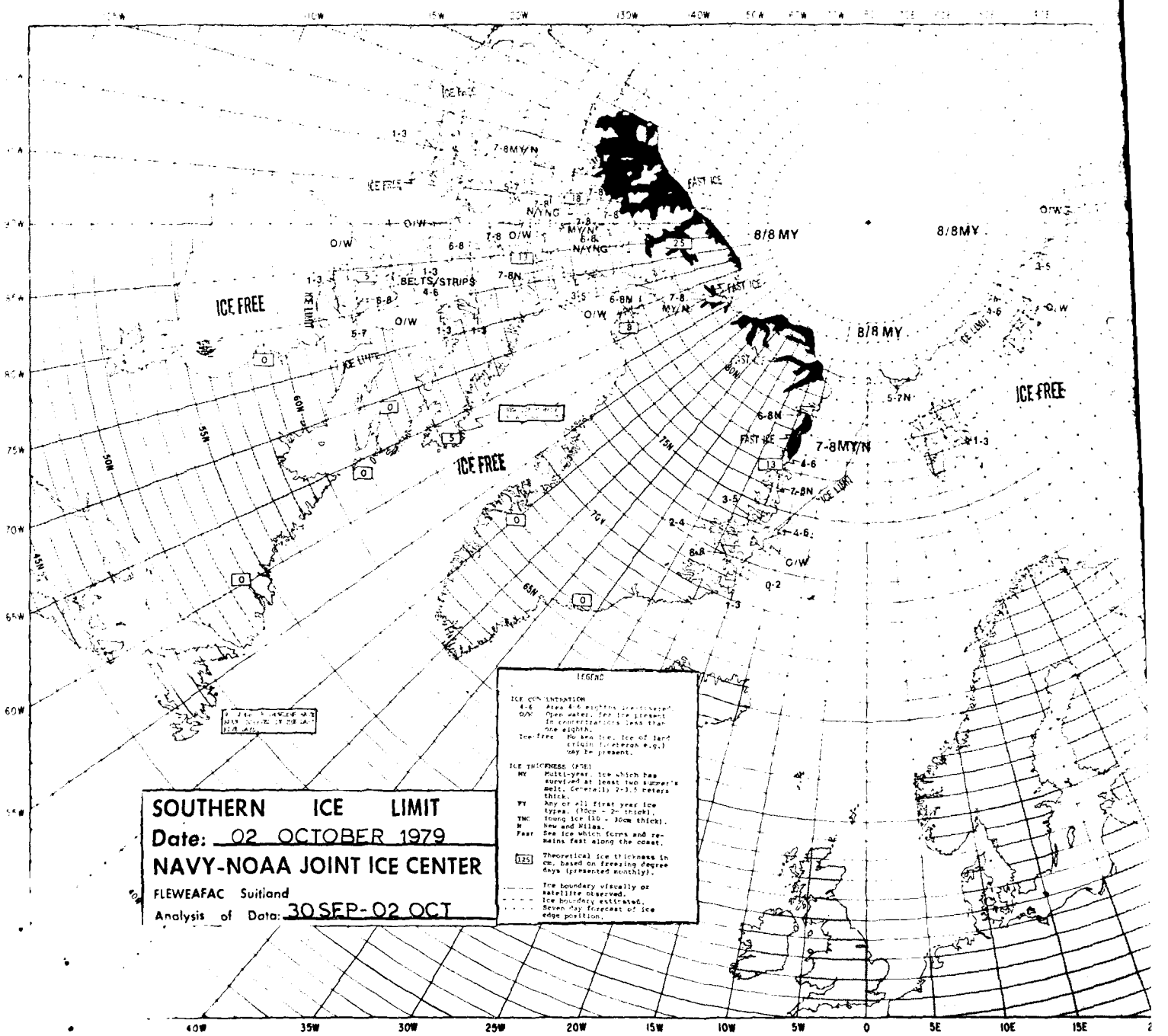


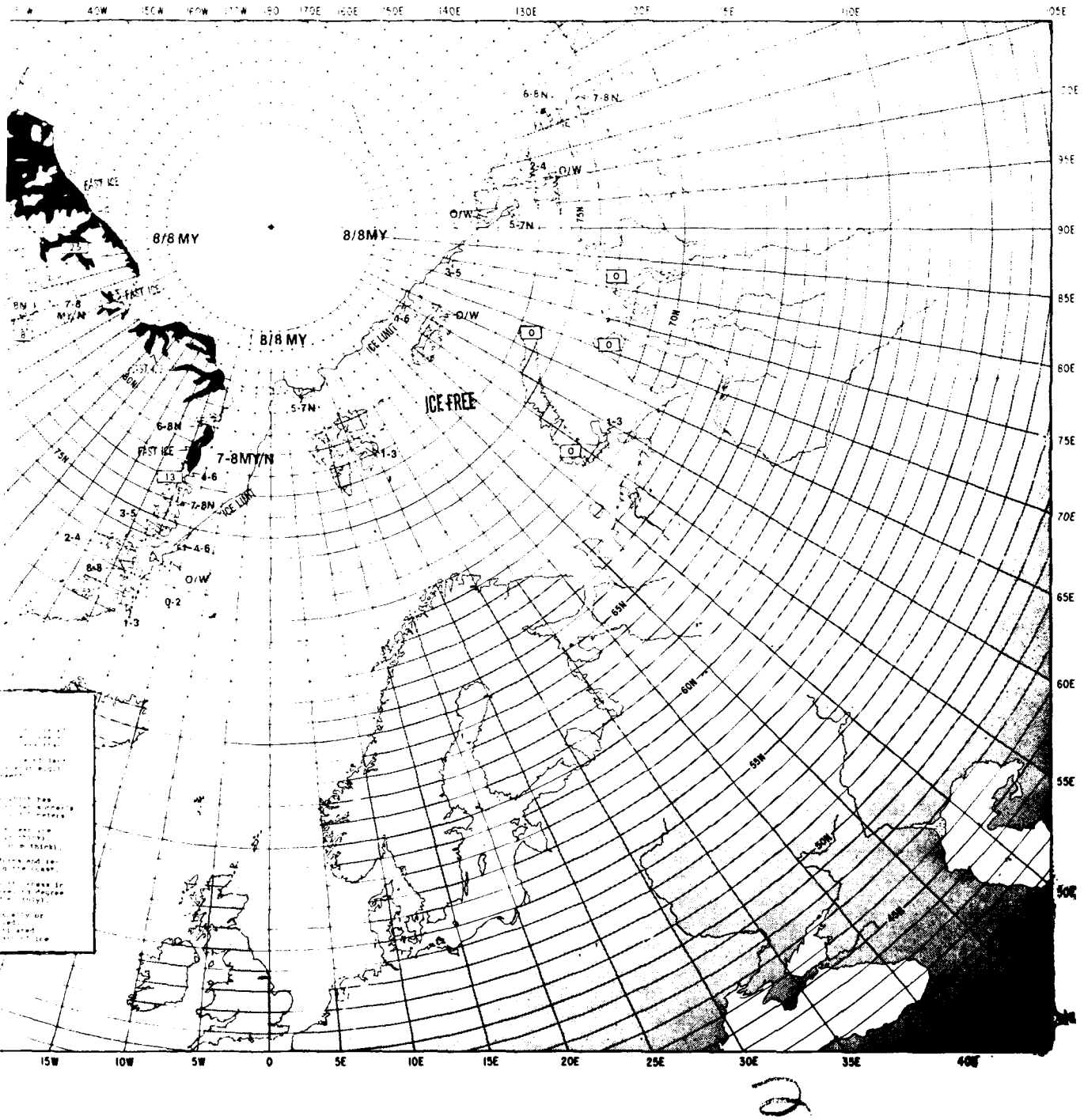
LIMIT
1979
CE CENTER
P 79


SOUTHERN ICE LIMIT
Date: 25 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 23-25 SEPT 1979
ICE FREE
ICE FREE
ICE FREE
O/W
NEW
FAST ICE
ICE LIMIT
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E



RN ICE LIMIT
EPTEMBER 1979
OAA JOINT ICE CENTER
land
ata 23-25 SEPT 1979


ICE FREE
FAST ICE
8/8 MY
7-8MY/N
BELTS/STRIPS
ICE LIMIT
O/W
SOUTHERN ICE LIMIT
Date: 02 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 30 SEP - 02 OCT
LEGEND



8/8 MY
8/8MY
8/8 MY
7-8MY/N
ICE FREE
FAST ICE
ICE LIMIT
O/W
6-8N
7-8N
5-7N
4-6
3-5
2-4
1-3
0-2
75N
70N
65N
60N
55N
50N
45N
15W
10W
5W
0
5E
10E
15E
20E
25E
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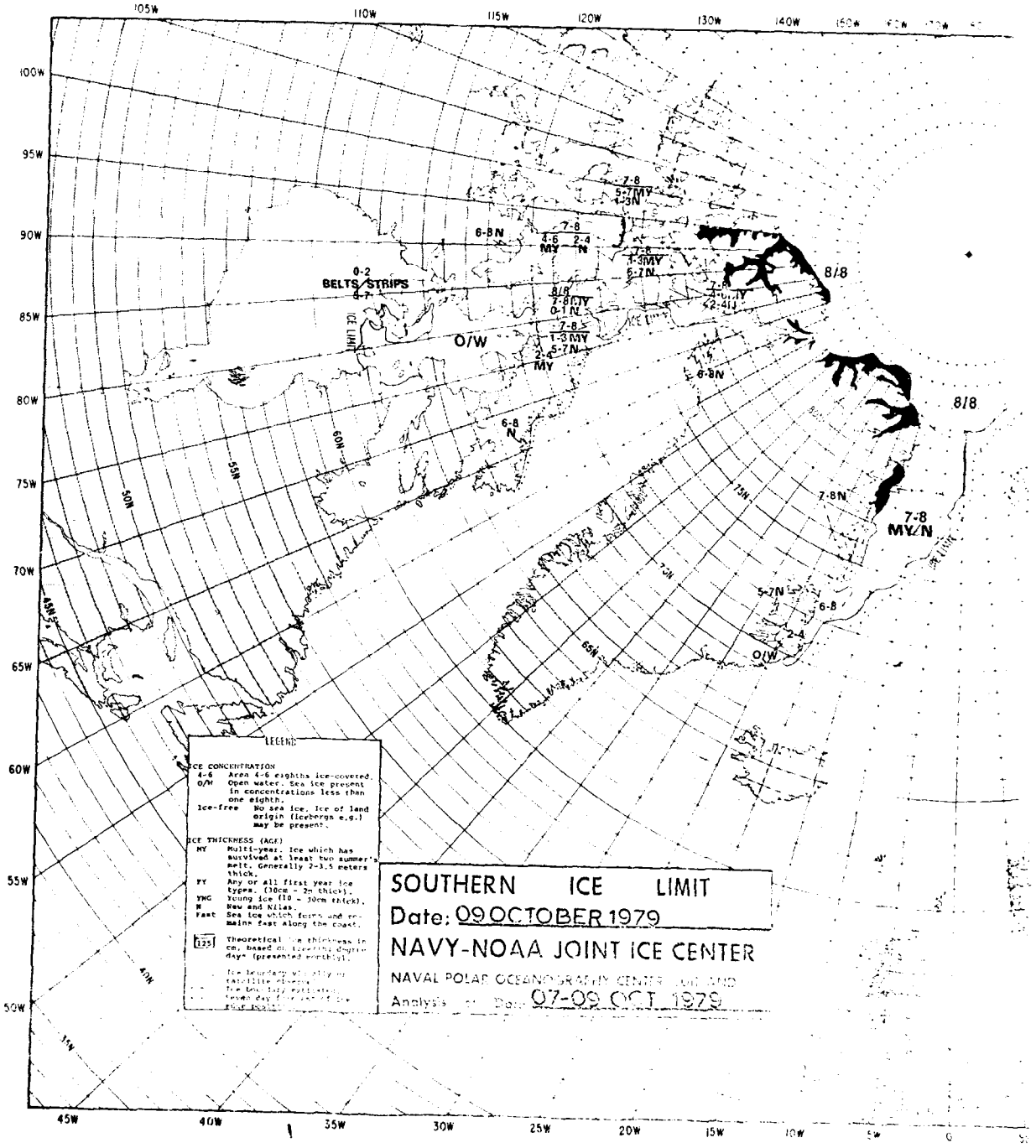
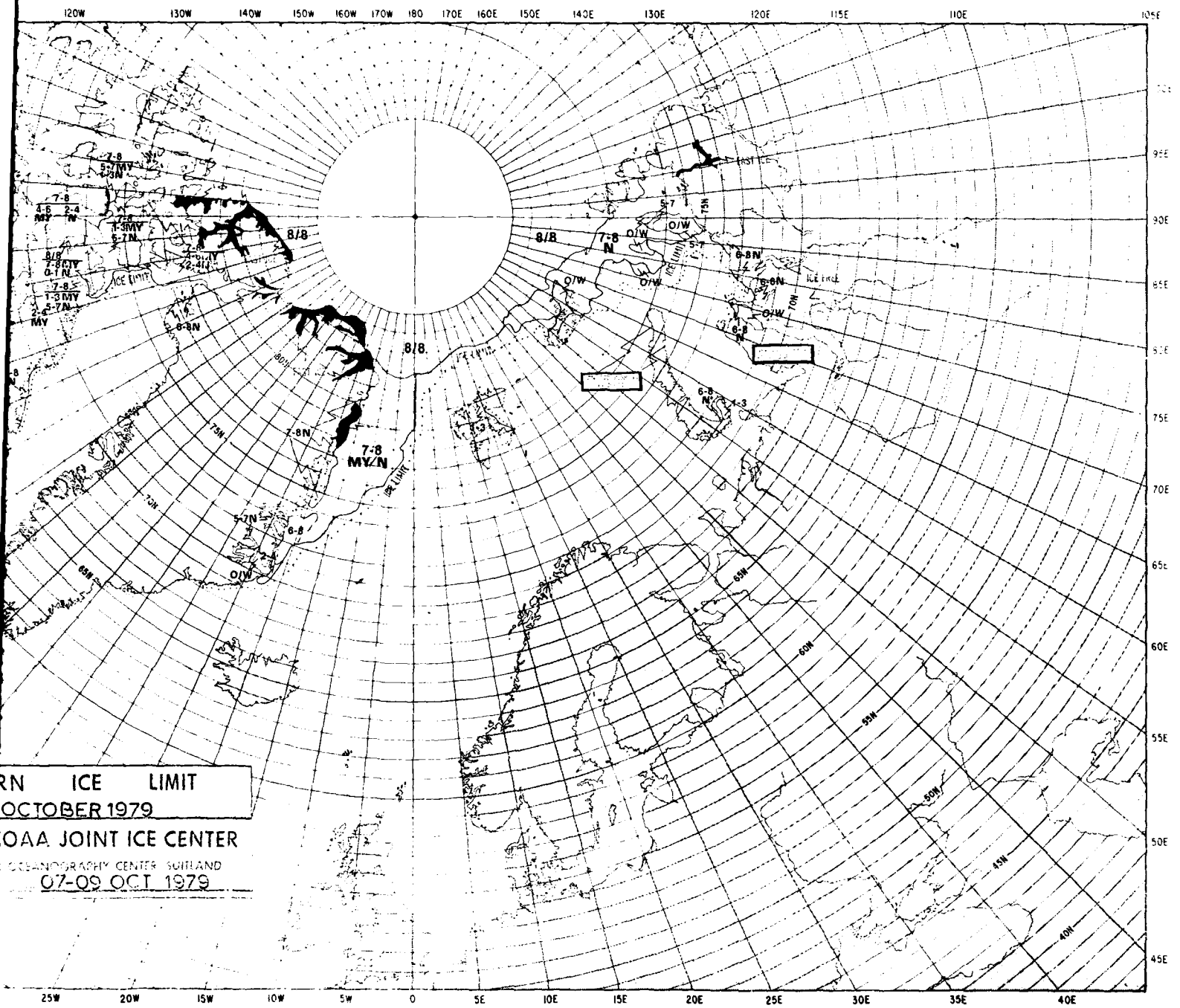
90E
85E
80E
75E
70E
65E
60E
55E
50E

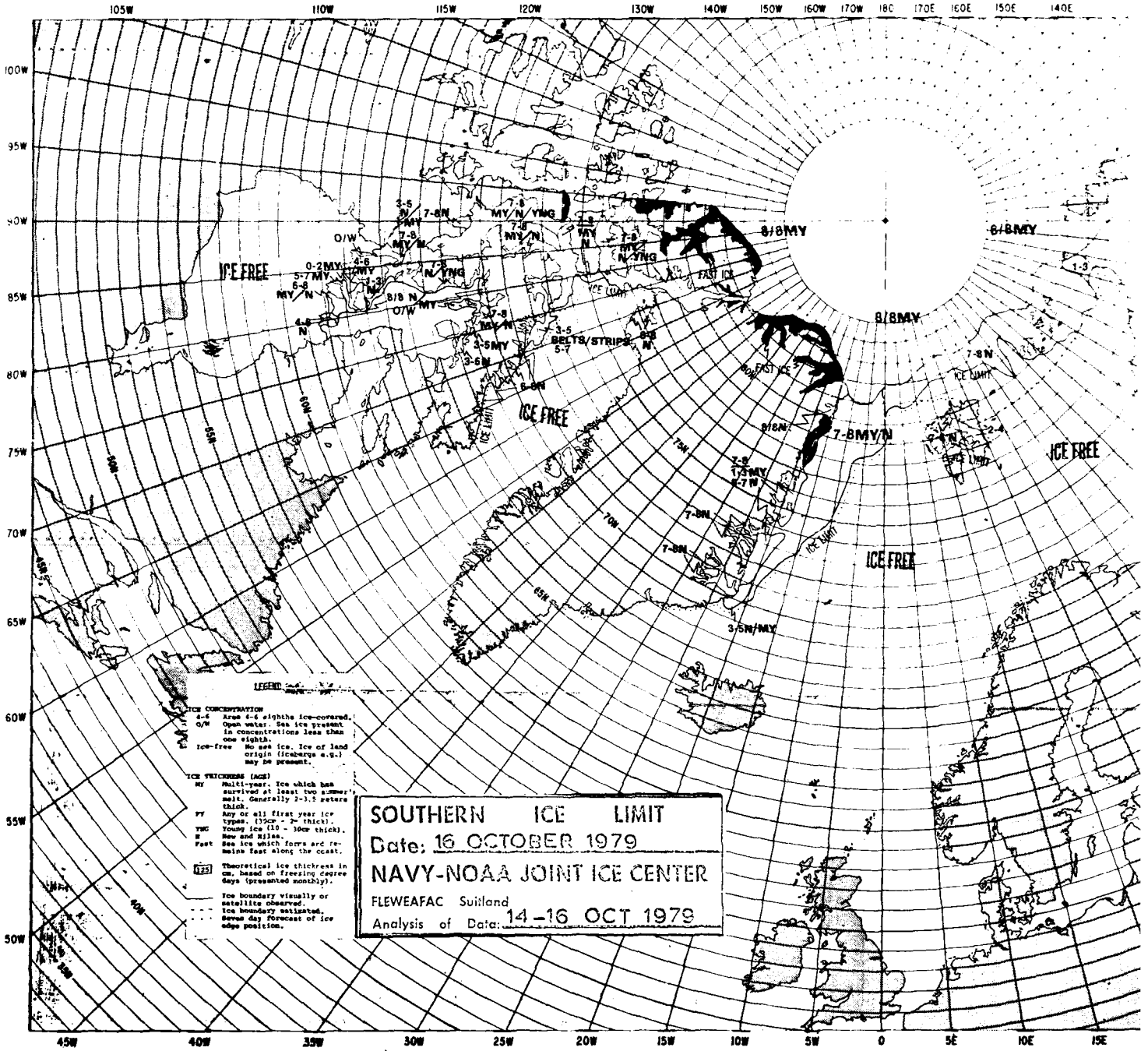
2

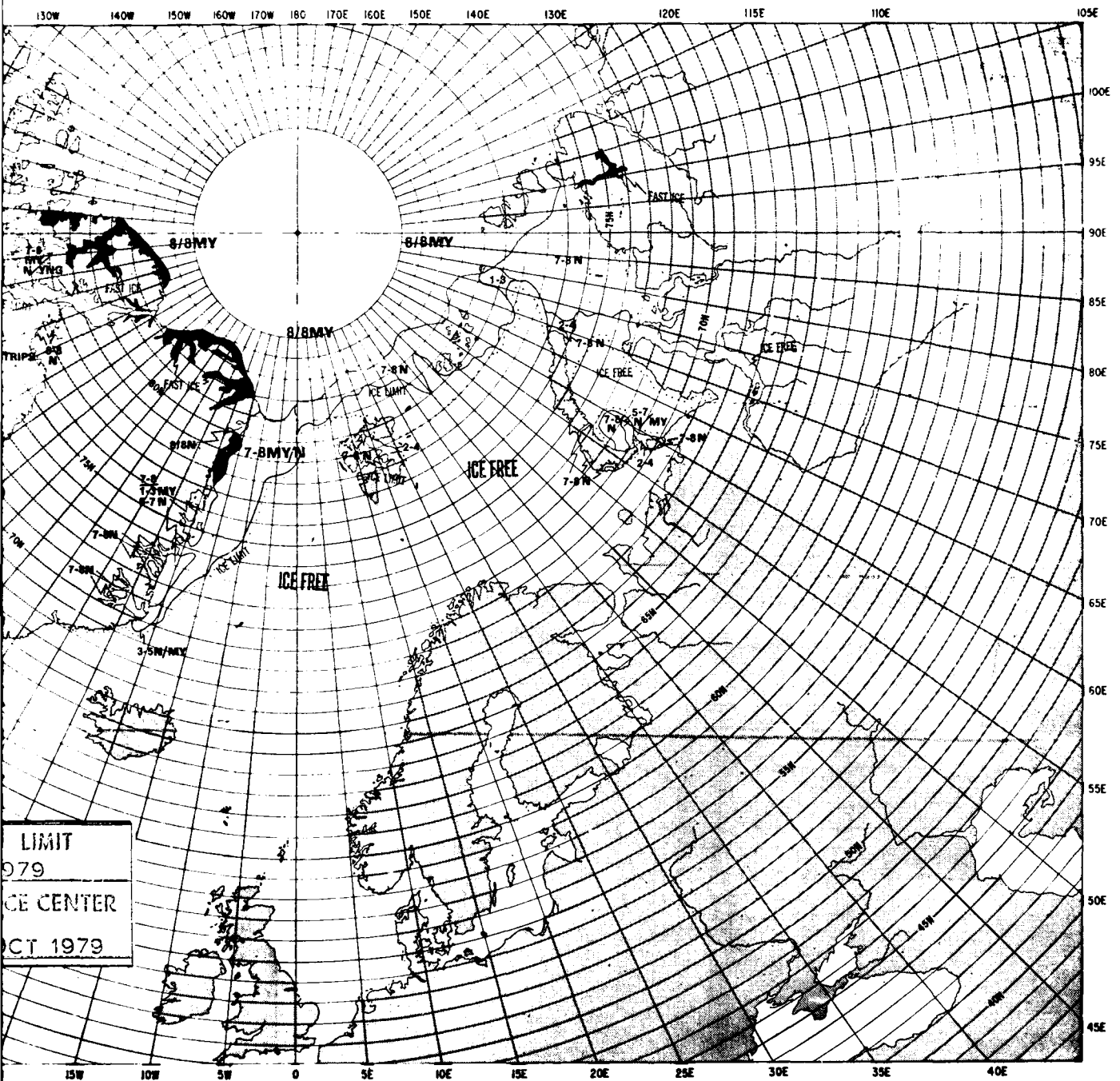


105W
110W
115W
120W
130W
140W
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
BELTS STRIPS
O/W
8/8
7-8 MY/N
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
SOUTHERN ICE LIMIT
Date: 09 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER
Analysis Date 07-09 OCT 1979



RN ICE LIMIT
OCTOBER 1979
OAA JOINT ICE CENTER
OCEANOGRAPHY CENTER SUITLAND
07-09 OCT 1979


105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
10E
15E
ICE FREE
8/8MY
6/8MY
7-8MY/N
7-8N
3/5N/MY
FAST ICE
ICE LIMIT
BELTS/STRIPS
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 metres thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 16 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 14-16 OCT 1979



LIMIT
979
CE CENTER
CT 1979

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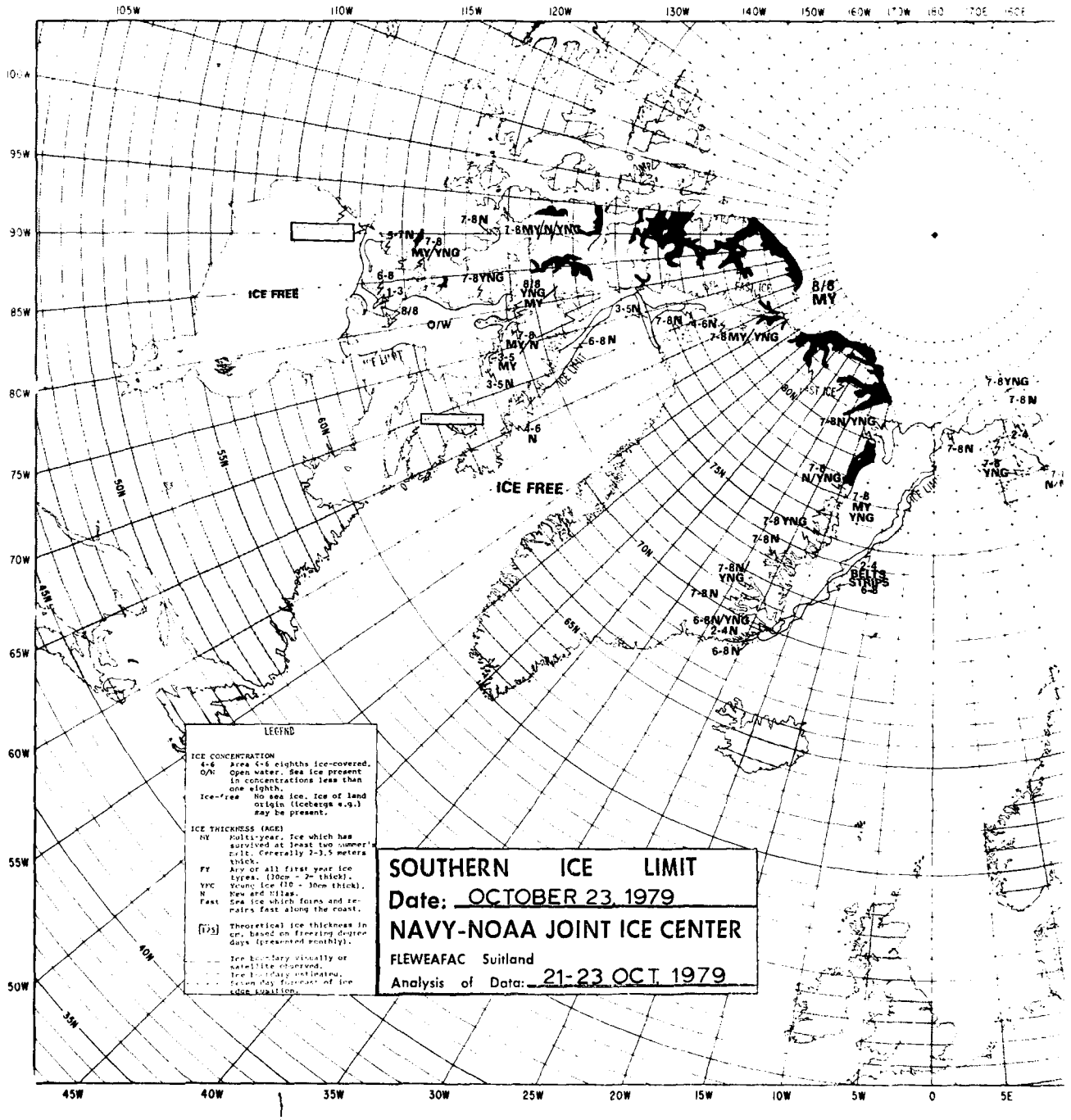
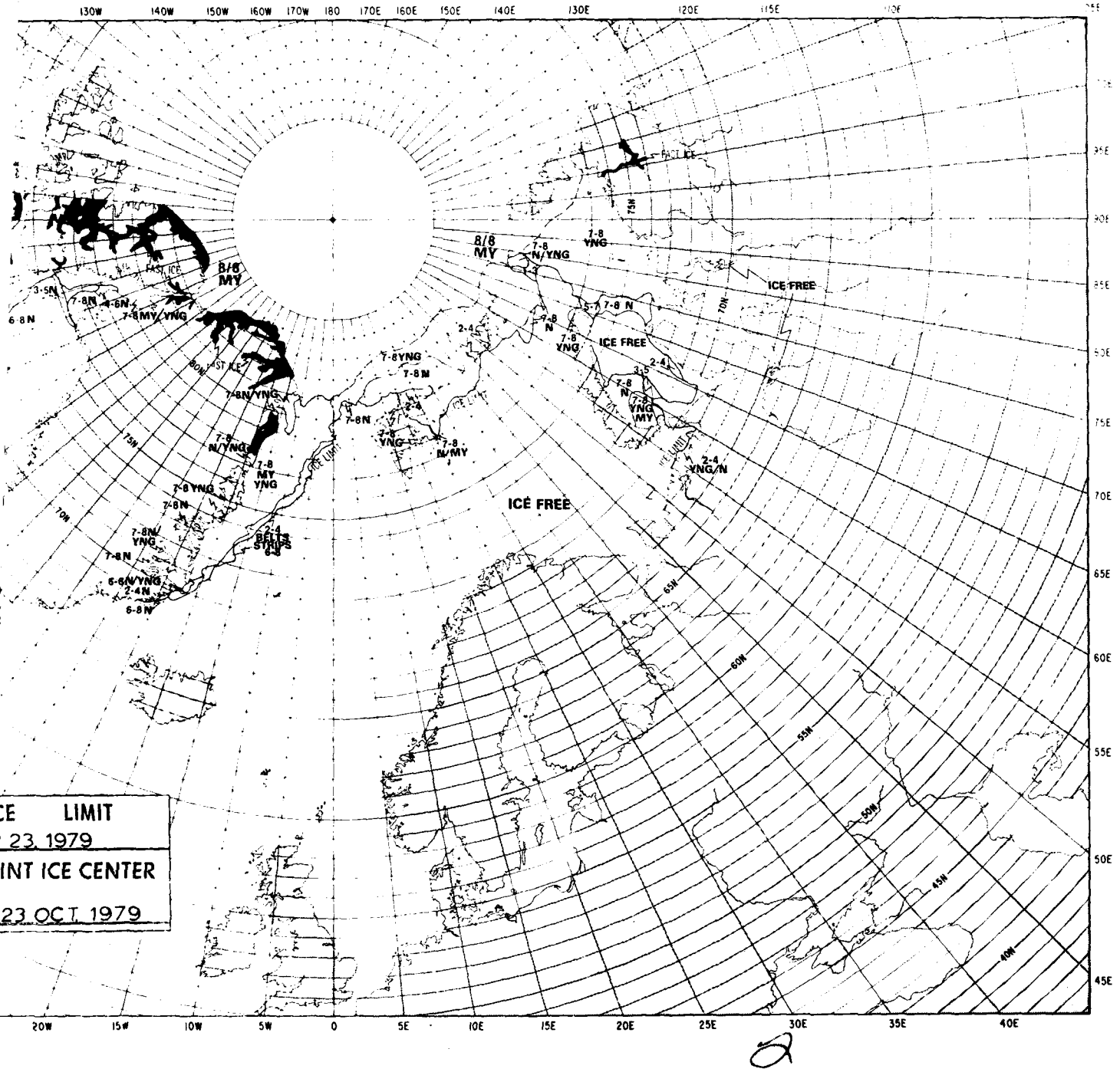
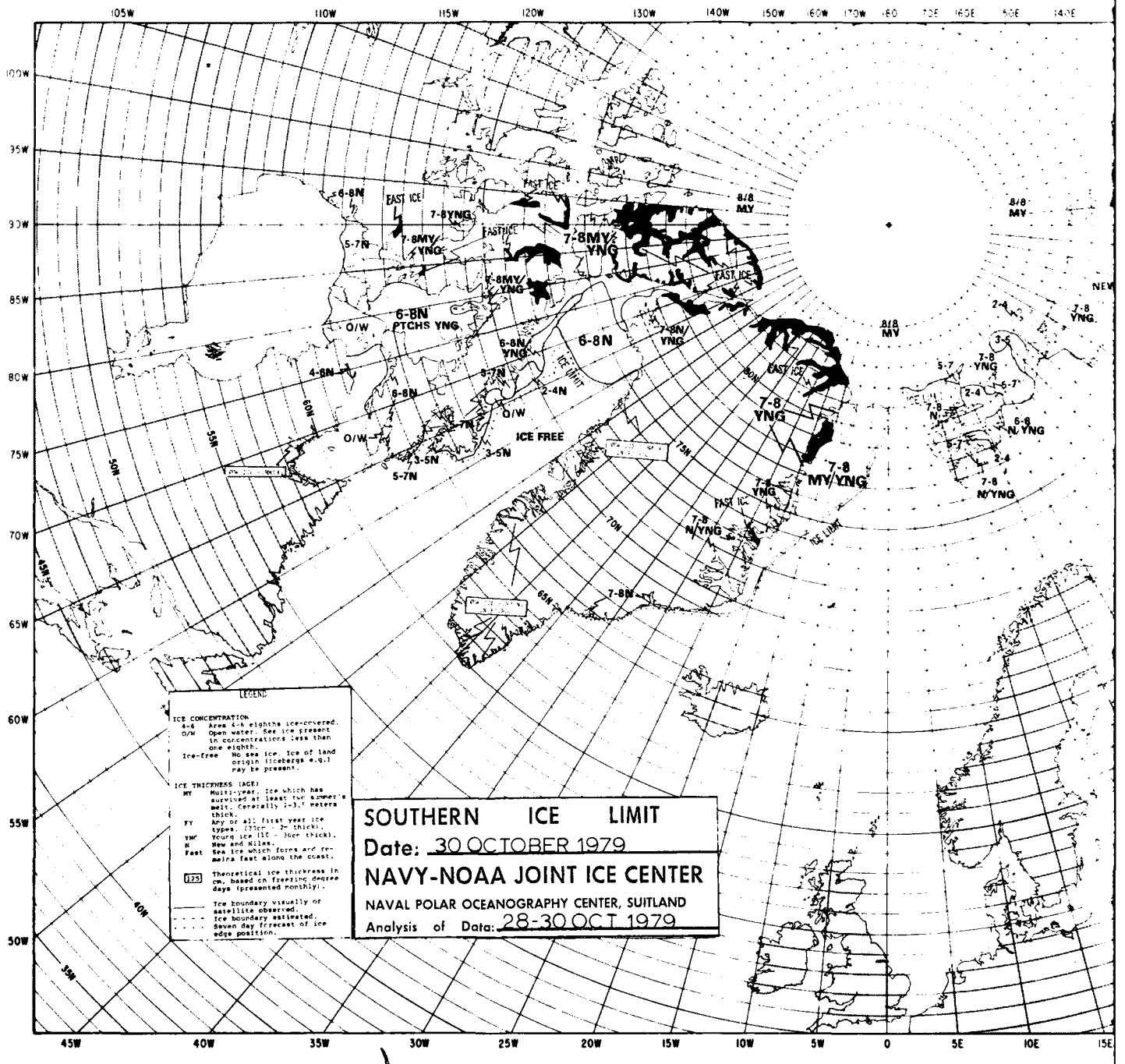


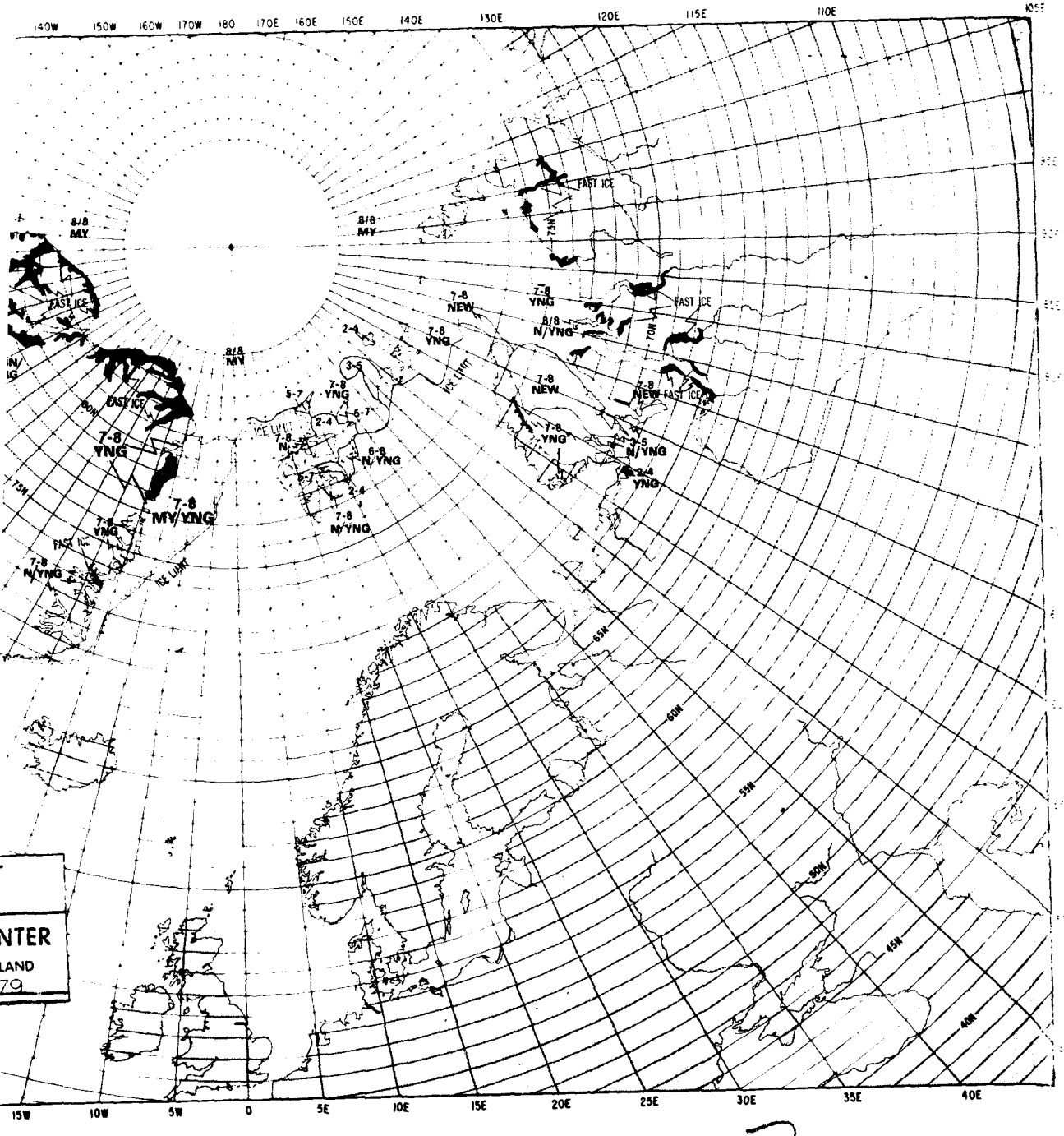
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
ICE FREE
ICE FREE
O/W
7-8N
7-8MY/N/YNG
7-8 MY/YNG
7-8YNG
8/8 YNG MY
8/8 MY
7-8 MY/N
3-5 MY
3-5N
6-8N
4-6 N
7-8N
4-6N
7-8MY/YNG
7-8YNG
7-8N
7-8N/YNG
7-8 N/YNG
7-8 MY YNG
7-8YNG
7-8N
7-8N/ YNG
7-8N
6-8N/YNG
2-4N
6-8N
2-4 BELTS STRIPS 6-8
7-8N
7-8 YNG
FAST ICE
ICE LIMIT
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
[125] Theoretical ice thickness in cm. based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: OCTOBER 23, 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 21-23 OCT. 1979



ICE LIMIT
23 1979
INT ICE CENTER
23 OCT 1979



SOUTHERN ICE LIMIT
Date: 30 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 28-30 OCT 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. See ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
ICE LIMIT
FAST ICE
6-8N PTCHS YNG
7-8MY/YNG
7-8 YNG
7-8 MY/YNG
6-8N
8/8 MY



NTER
LAND
79

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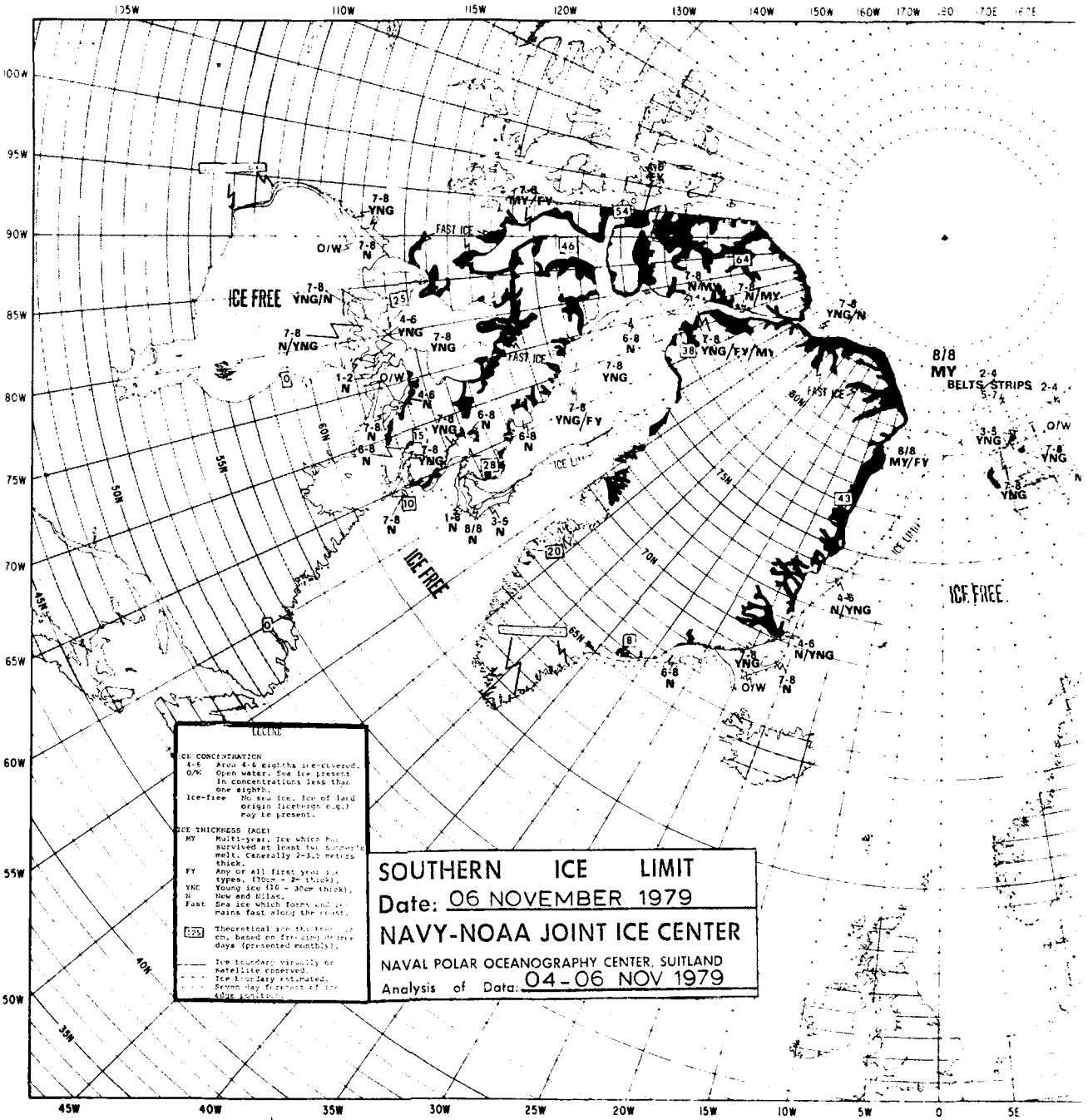
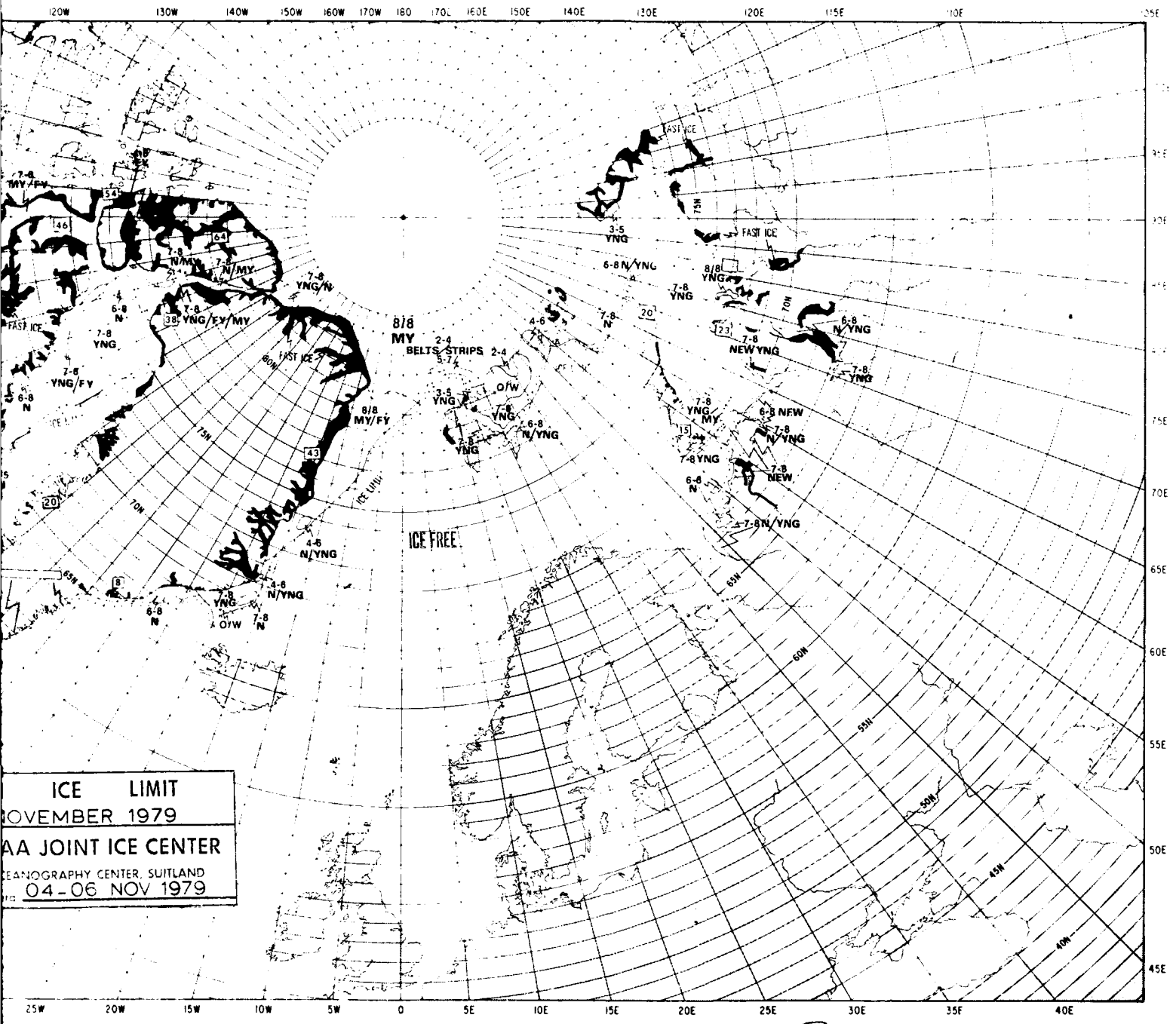
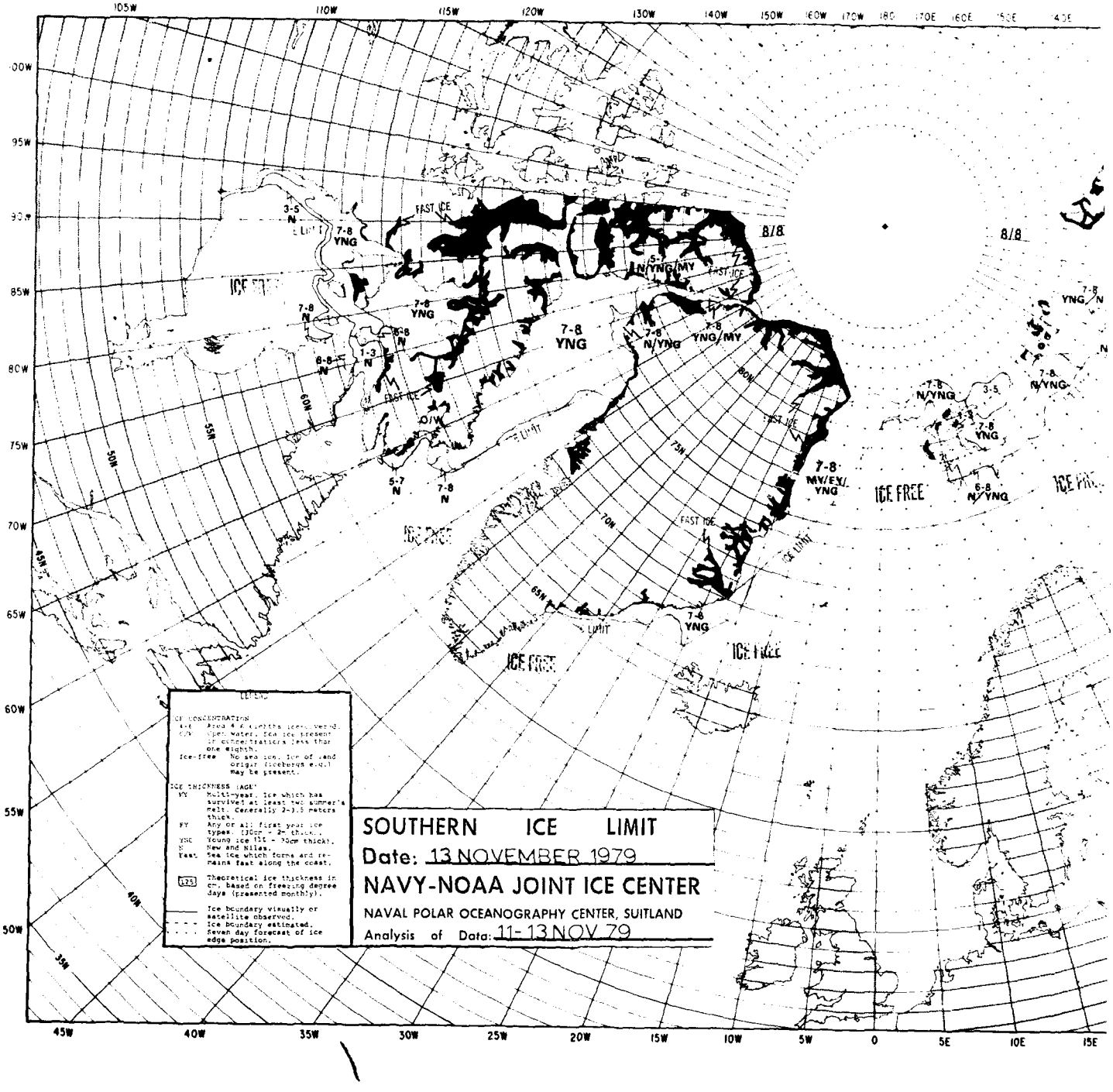


SOUTHERN ICE LIMIT
Date: 06 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 04-06 NOV 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary virtually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
FAST ICE
BELTS STRIPS
8/8 MY



ICE LIMIT
NOVEMBER 1979
AA JOINT ICE CENTER
CEANOGRAPHY CENTER, SUITLAND
04-06 NOV 1979


SOUTHERN ICE LIMIT
Date: 13 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 11-13 NOV 79
ICE FREE
FAST ICE
8/8
7-8 YNG
7-8 N/YNG
7-8 YNG/MY
7-8 MY/FY/YNG
6-8 N/YNG
5-7 N
3-5 N
1-3 N
6-8 N
O/W
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
150E
140E
100W
95W
90W
85W
80W
75W
70W
65W
60W
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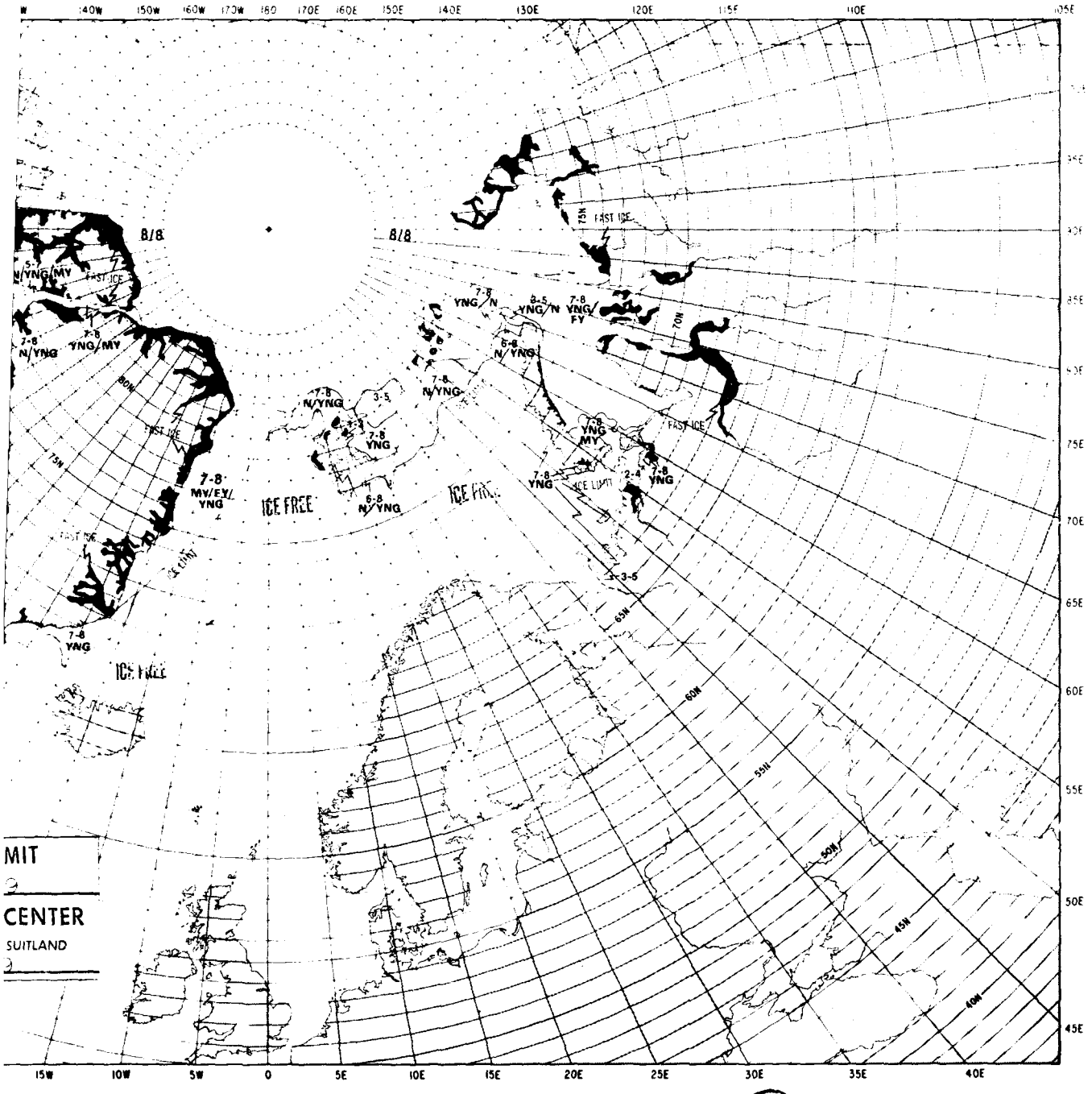
5W
0
5E
10E
15E



MIT

CENTER

SUITLAND

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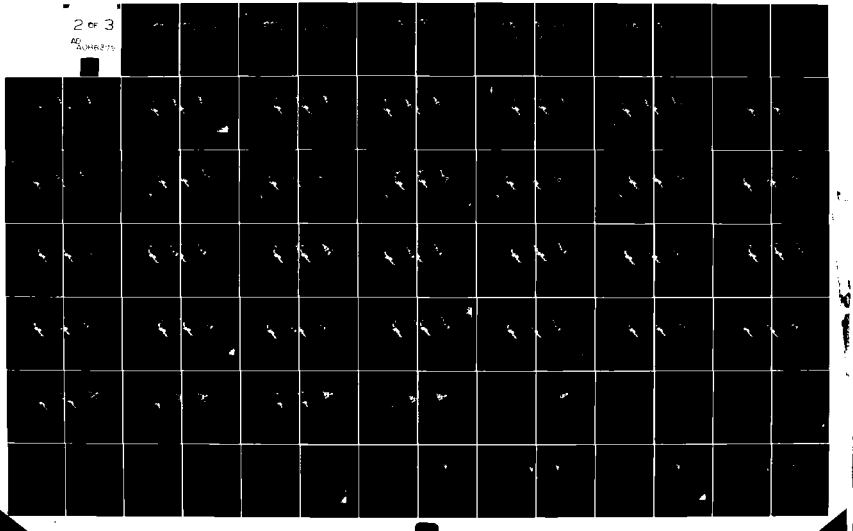
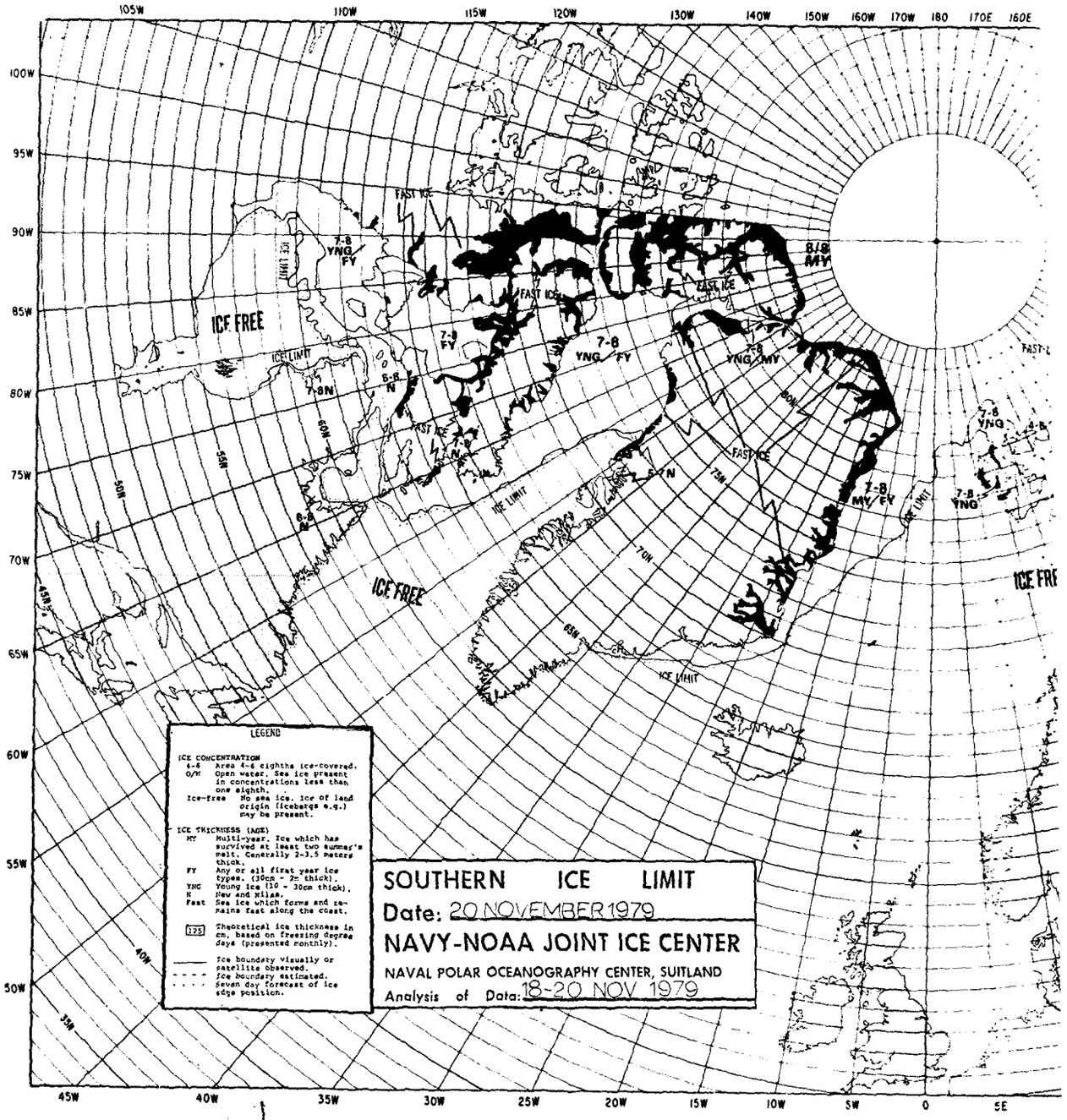
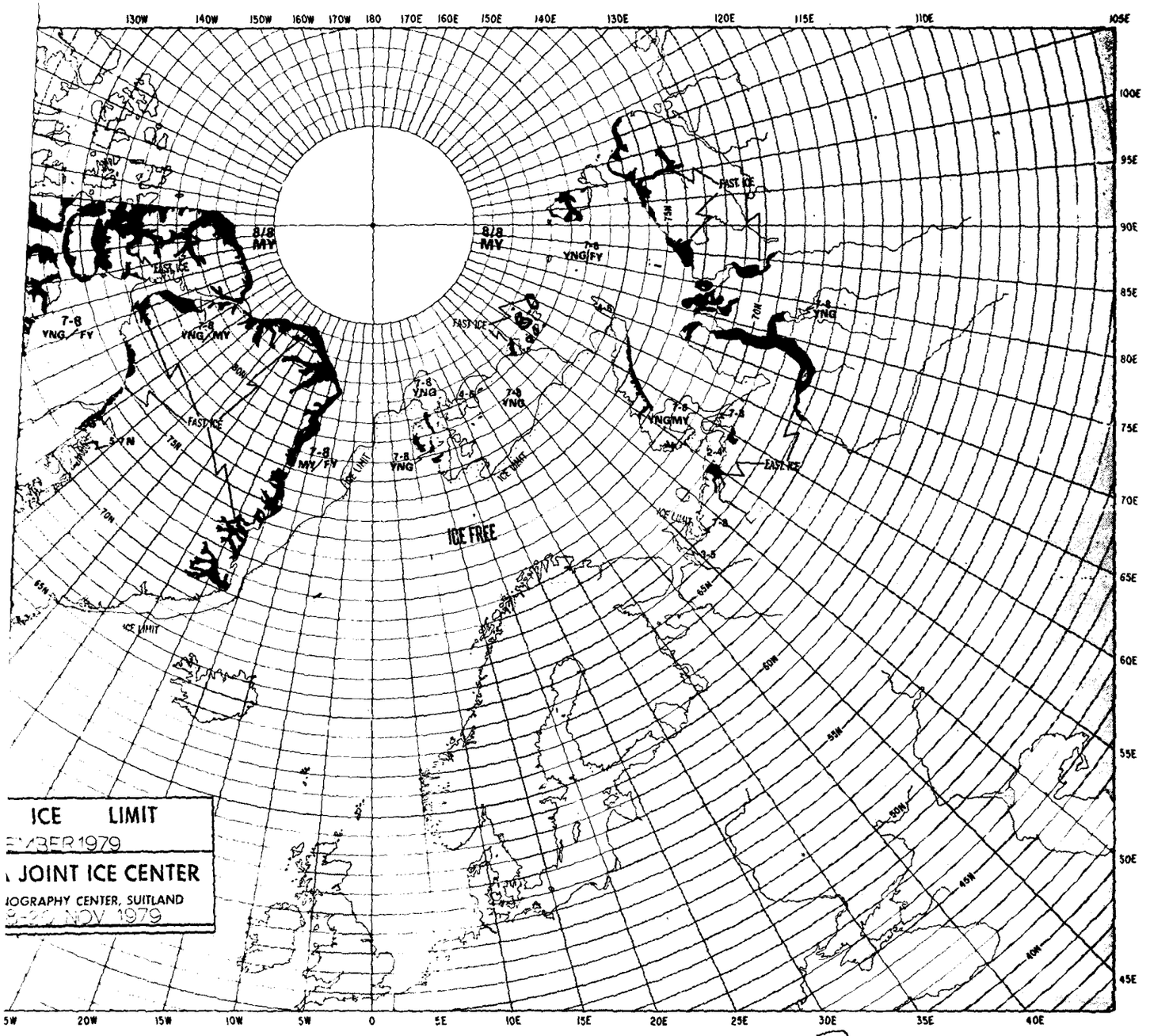
AD-A086 375 NAVAL POLAR OCEANOGRAPHY CENTER WASHINGTON DC F/G 8/12
EASTERN-WESTERN ARCTIC SEA ICE ANALYSIS.(U)
1979
UNCLASSIFIED NL

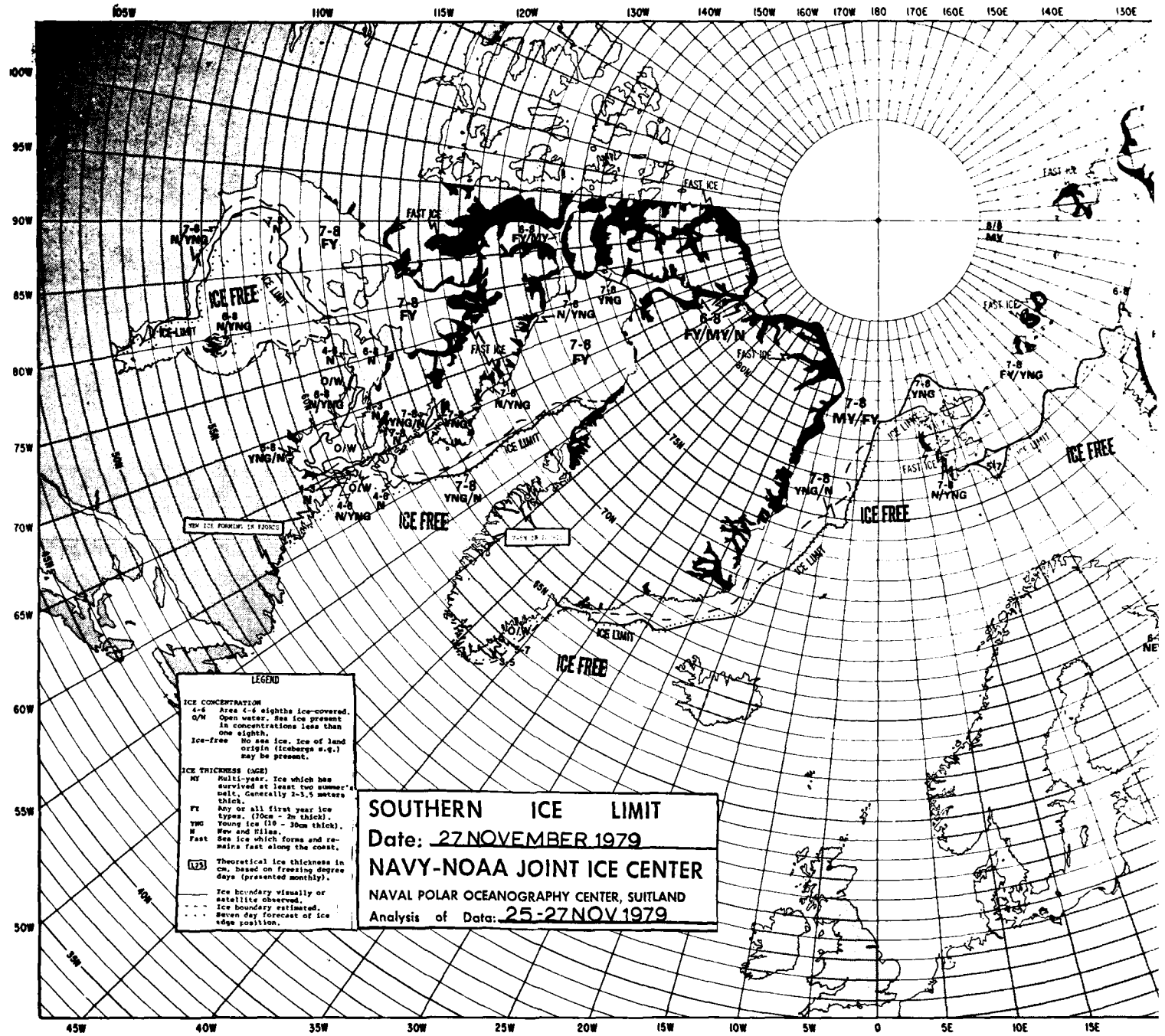
2 OF 3
AD A086375



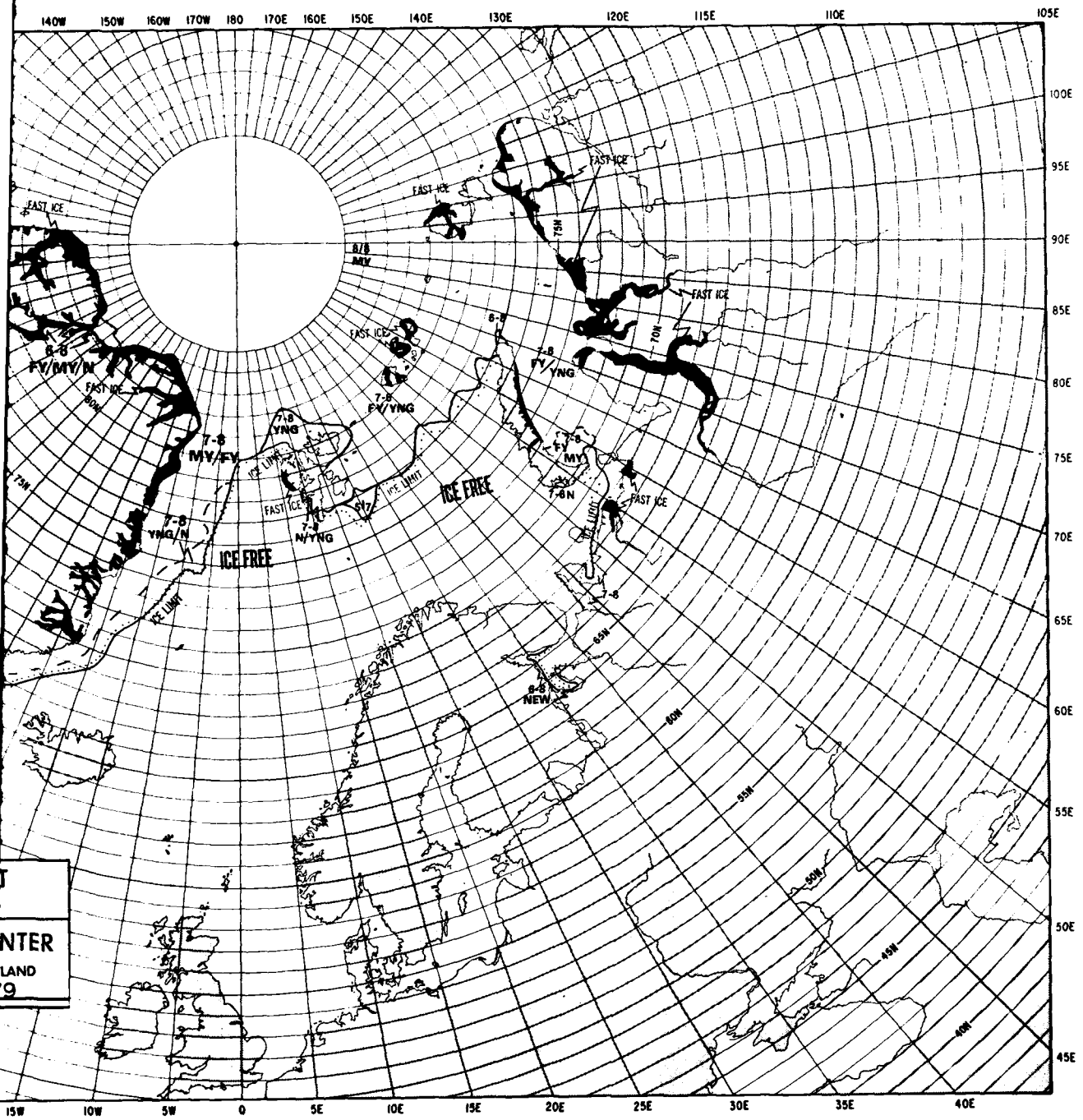


SOUTHERN ICE LIMIT
Date: 20 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 18-20 NOV 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/M Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
ICE LIMIT
FAST ICE
7-8 YNG/FY
7-8 FY
7-8 YNG/FY
7-8 YNG/MY
8/8 MY
7-8 MY/FY
7-8 YNG
7-8N
6-8 N
5-7N
105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E

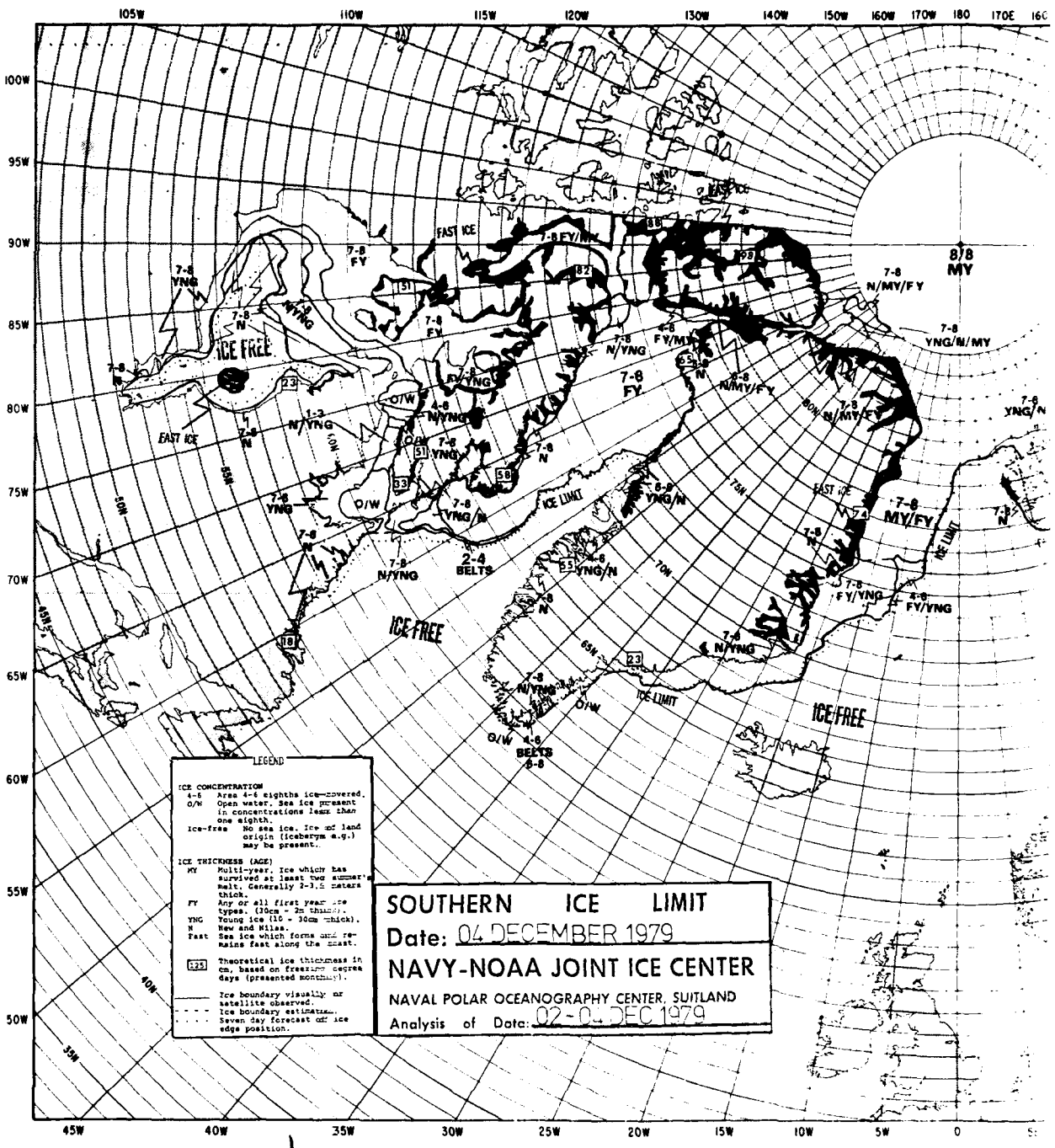

130W
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
8/8 MY
7-8 YNG/FY
7-8 YNG/MY
7-8 MY/FY
7-8 YNG
4-6
2-4
FAST ICE
ICE LIMIT
ICE FREE
75N
70N
65N
60N
55N
50N
45N
40N
ICE LIMIT
JOINT ICE CENTER
5W
20W
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E



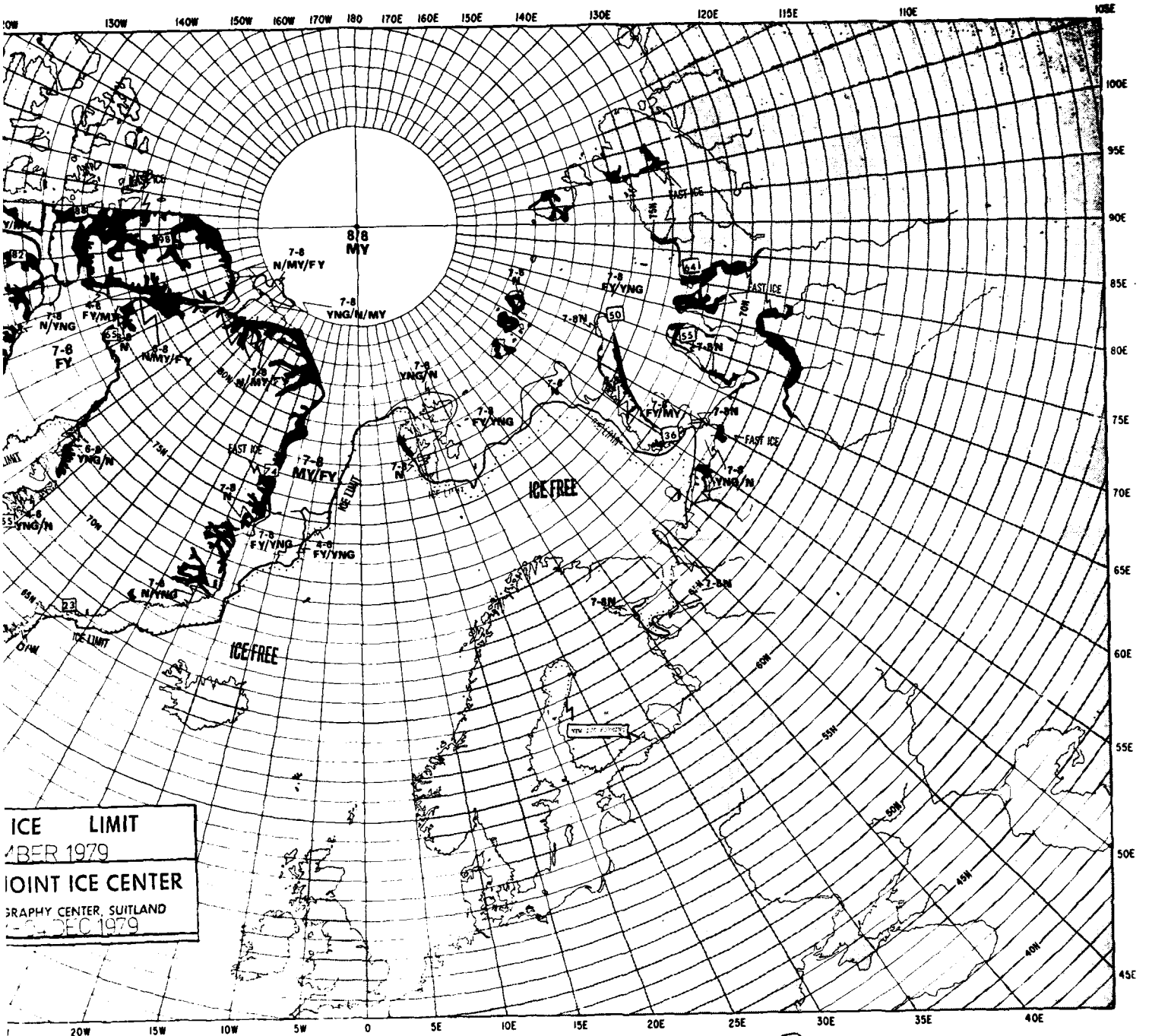
SOUTHERN ICE LIMIT
Date: 27 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 25-27 NOV 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
FAST ICE
ICE LIMIT
NEW ICE FORMING IN FJORDS



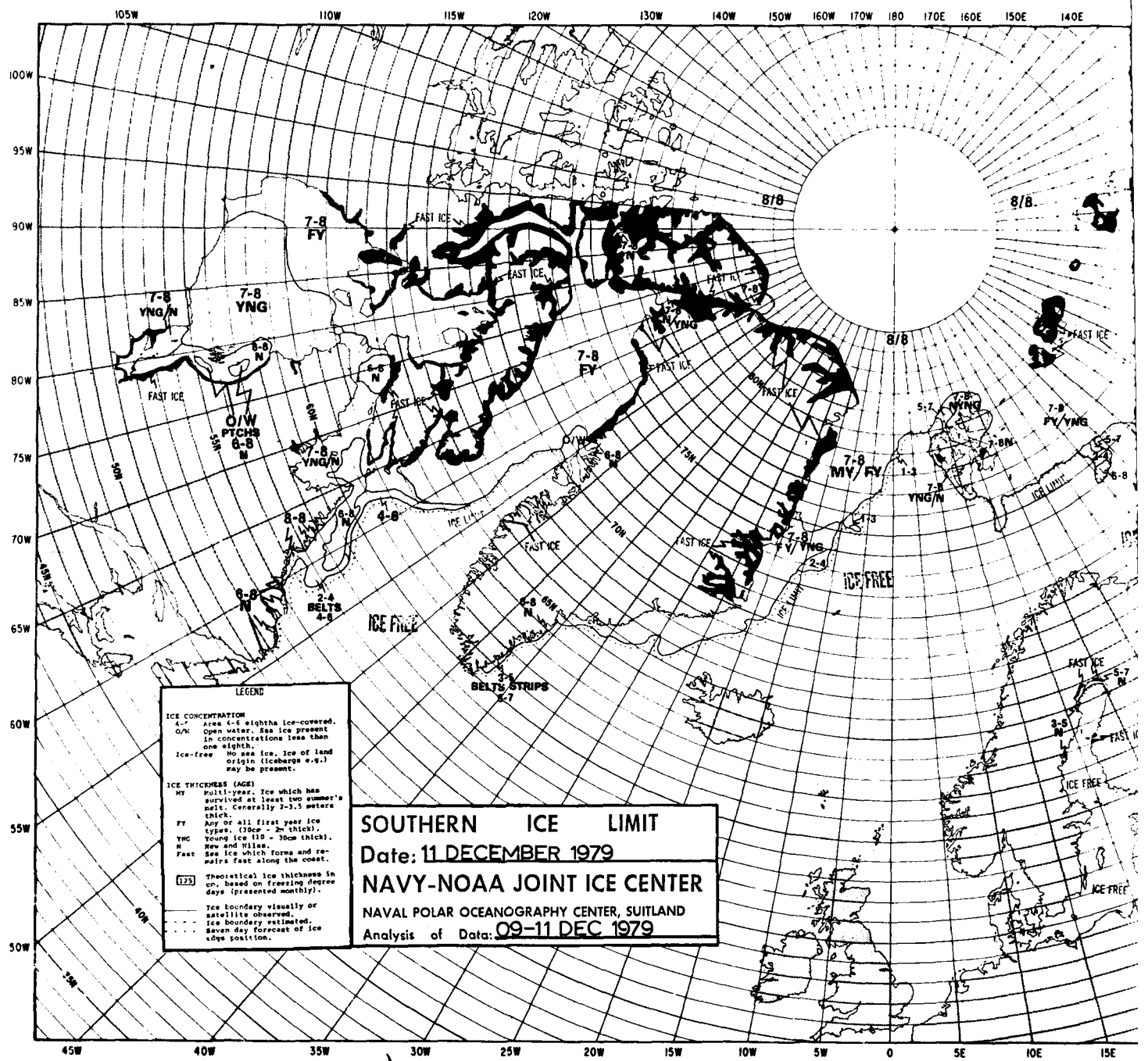
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
FAST ICE
6-8
FY/MY/N
7-8
MY/FY
7-8
YNG/N
7-8
YNG
7-8
FY/YNG
7-8
N/YNG
7-8
FY/YNG
7-8
FY
MY
7-8N
6-8
NEW
ICE FREE
ICE LIMIT
75N
70N
65N
60N
55N
50N
45N
40N
NTER
LAND

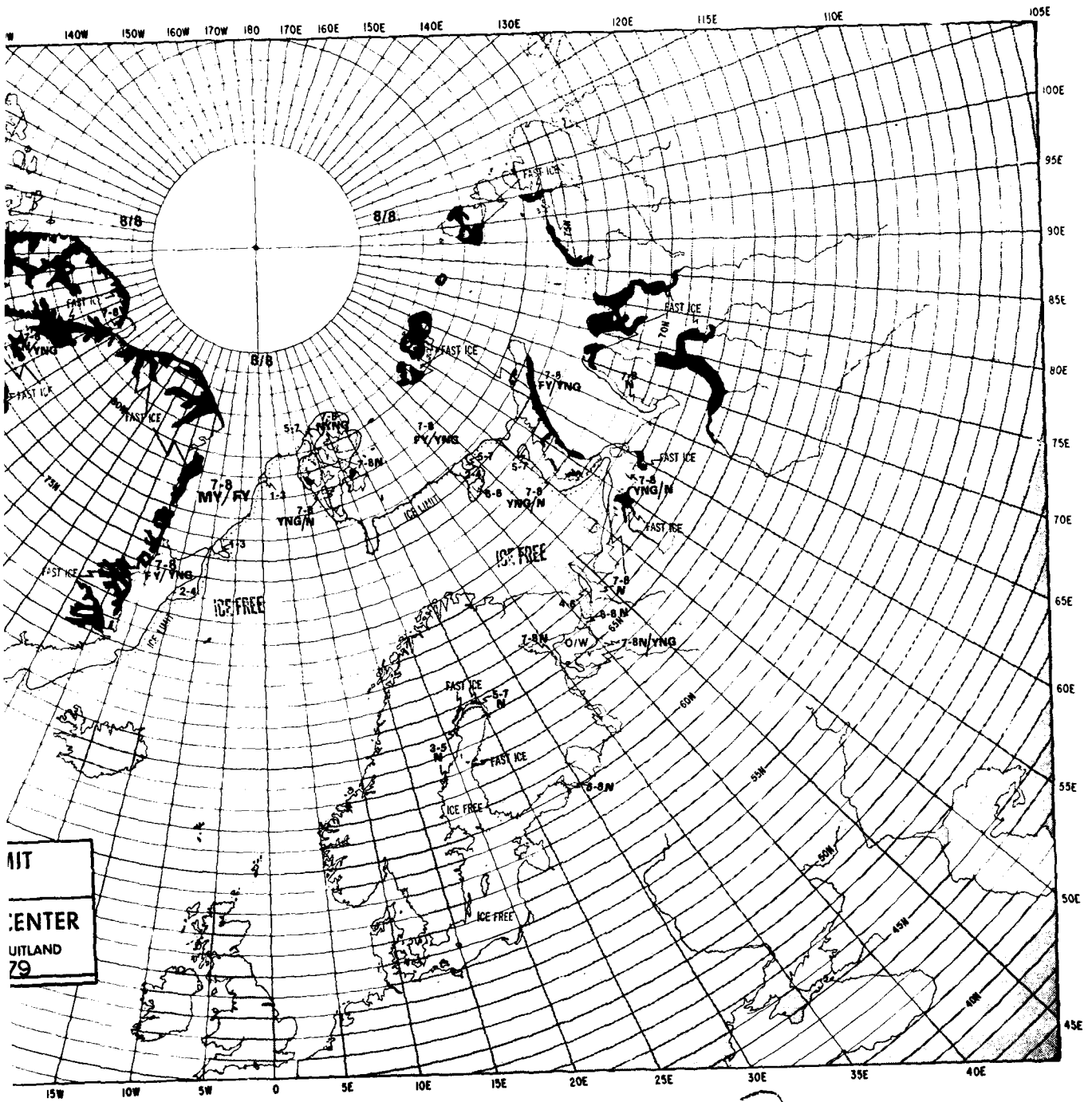


105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
FAST ICE
ICE FREE
ICE LIMIT
7-8 FY
7-8 YNG
7-8 N
7-8 N/YNG
7-8 FY/MY
7-8 N/MY/FY
7-8 YNG/N/MY
8/8 MY
7-8 MY/FY
7-8 FY/YNG
4-6 FY/YNG
4-6 N/YNG
1-3 N/YNG
O/W
2-4 BELTS
4-6 BELTS
6-8 YNG/N
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast off ice edge position.
SOUTHERN ICE LIMIT
Date: 04 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 02-04 DEC 1979

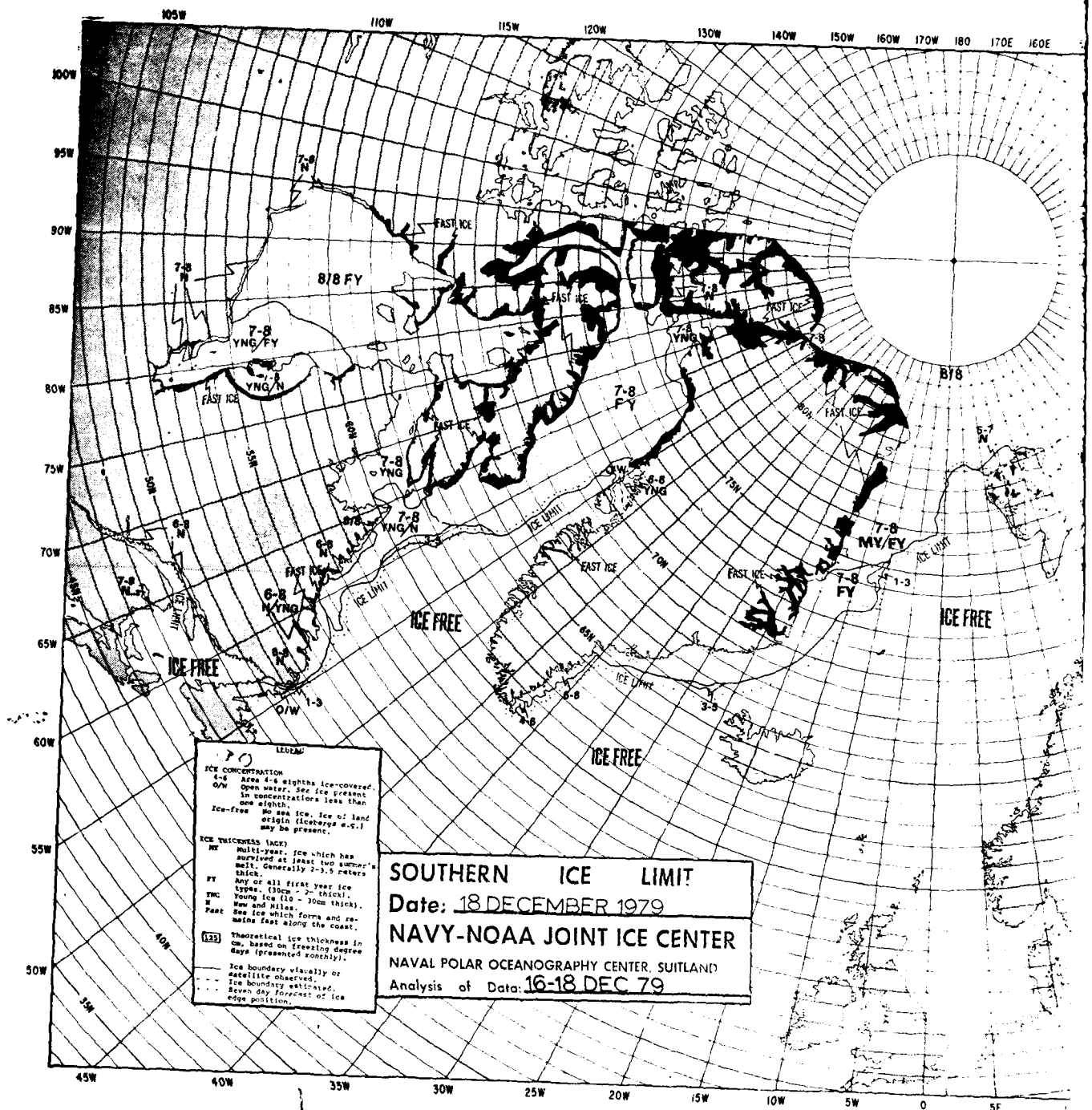


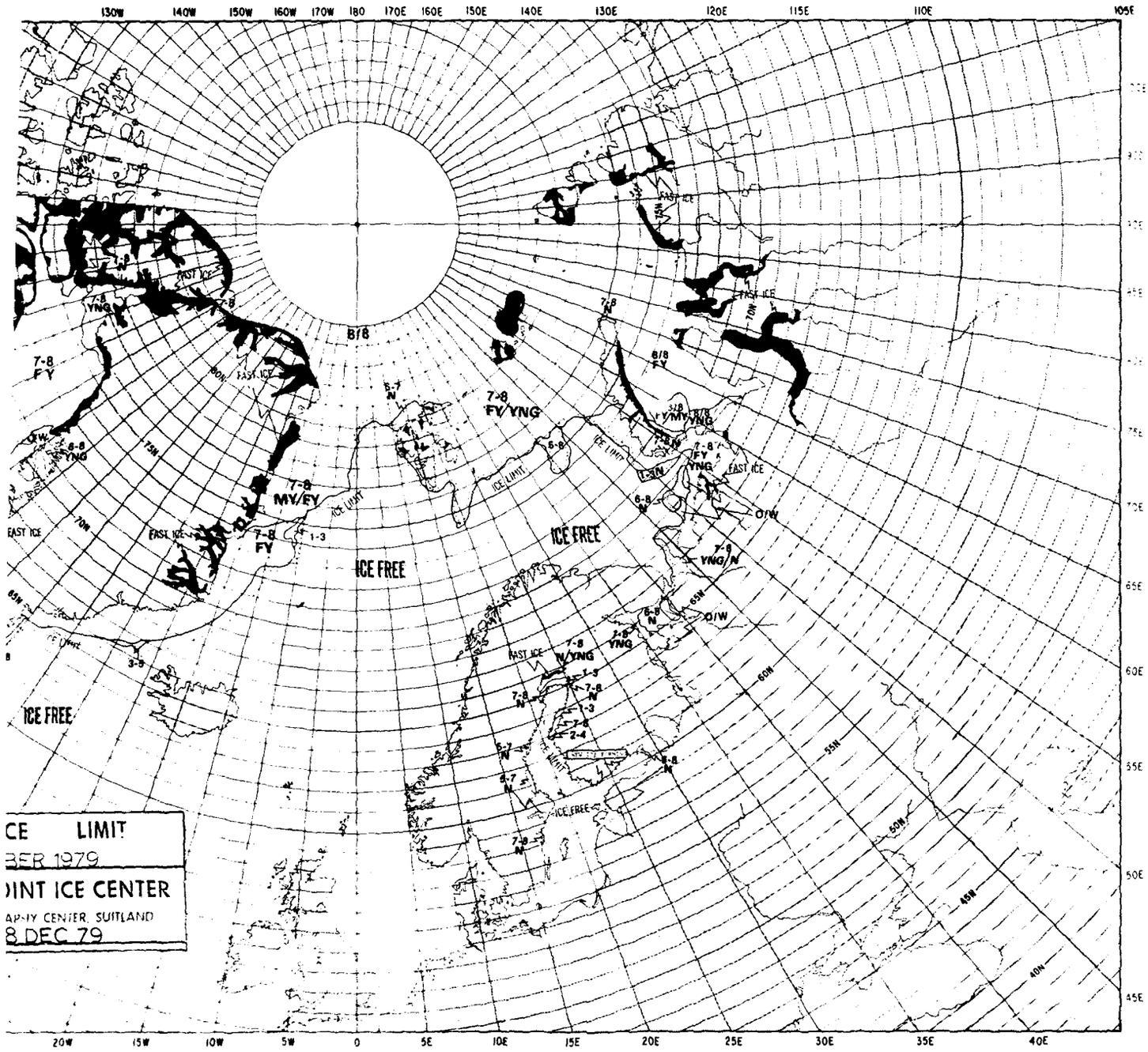
ICE LIMIT
MBER 1979
IOINT ICE CENTER
GRAPHY CENTER, SUITLAND
DEC 1979
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
ICE LIMIT
ICE LIMIT
8/8 MY
7-8 N/MY/FY
7-8 YNG/N/MY
7-8 FY
7-8 N/YNG
7-8 MY/FY
7-8 FY/YNG
7-8 YNG/N
7-8 FY/MY
7-8N
4-8 FY/YNG
6-8 YNG/N


SOUTHERN ICE LIMIT
Date: 11 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 09-11 DEC 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
FAST ICE
ICE LIMIT
7-8 FY
7-8 YNG/N
7-8 YNG
O/W PTCHS 6-8 N
7-8 MY/FY
7-8 FY/YNG
2-4 BELTS 4-6
3-5 BELTS STRIPS 5-7
8/8

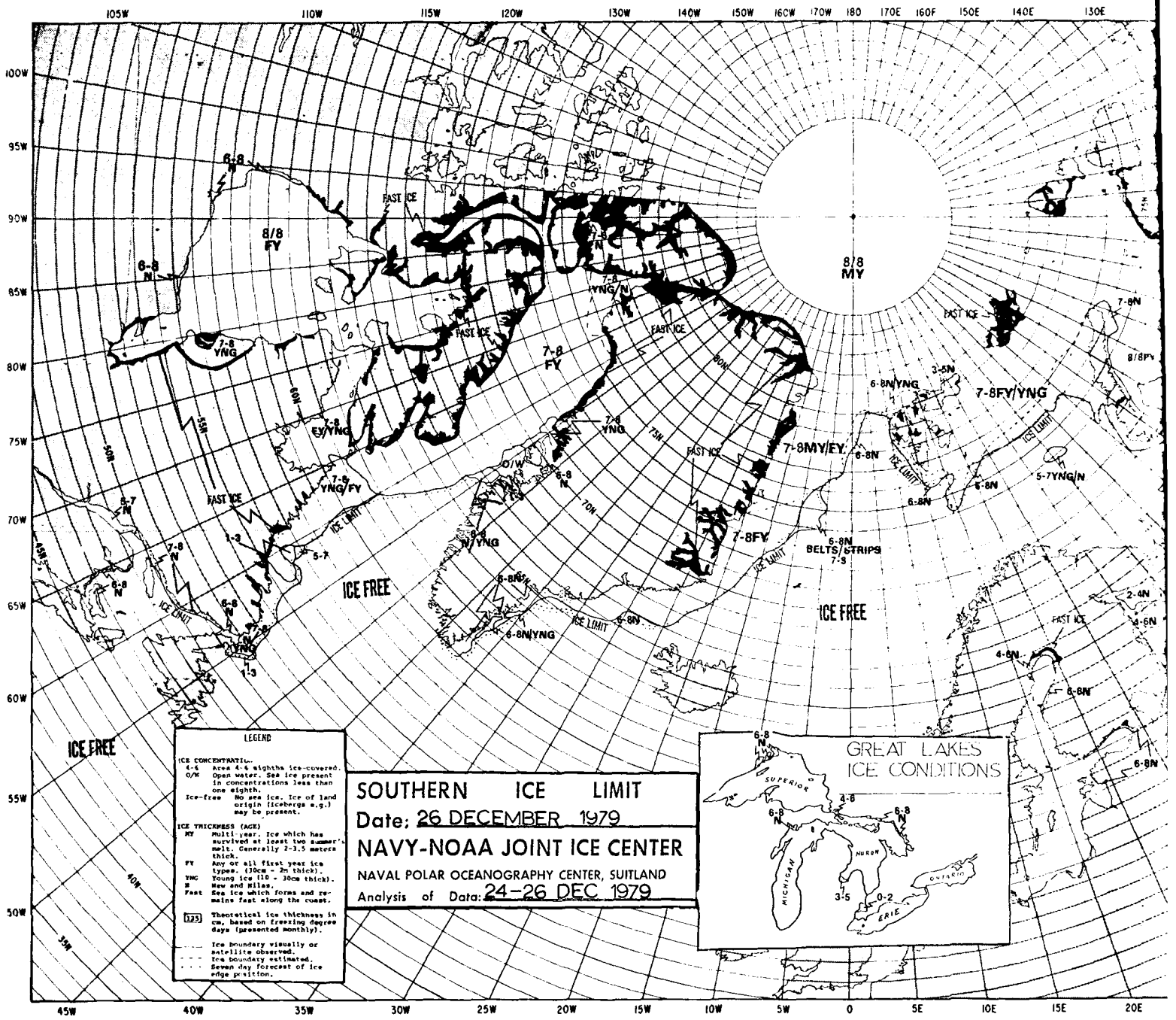


140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
55E
50E
45E
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
8/8
FAST ICE
7-8
MY/FY
7-8
FY/YNG
7-8
YNG/N
7-8
N
7-8N/YNG
7-8N
O/W
ICE FREE
ICE LIMIT
MIT
CENTER
UITLAND
79

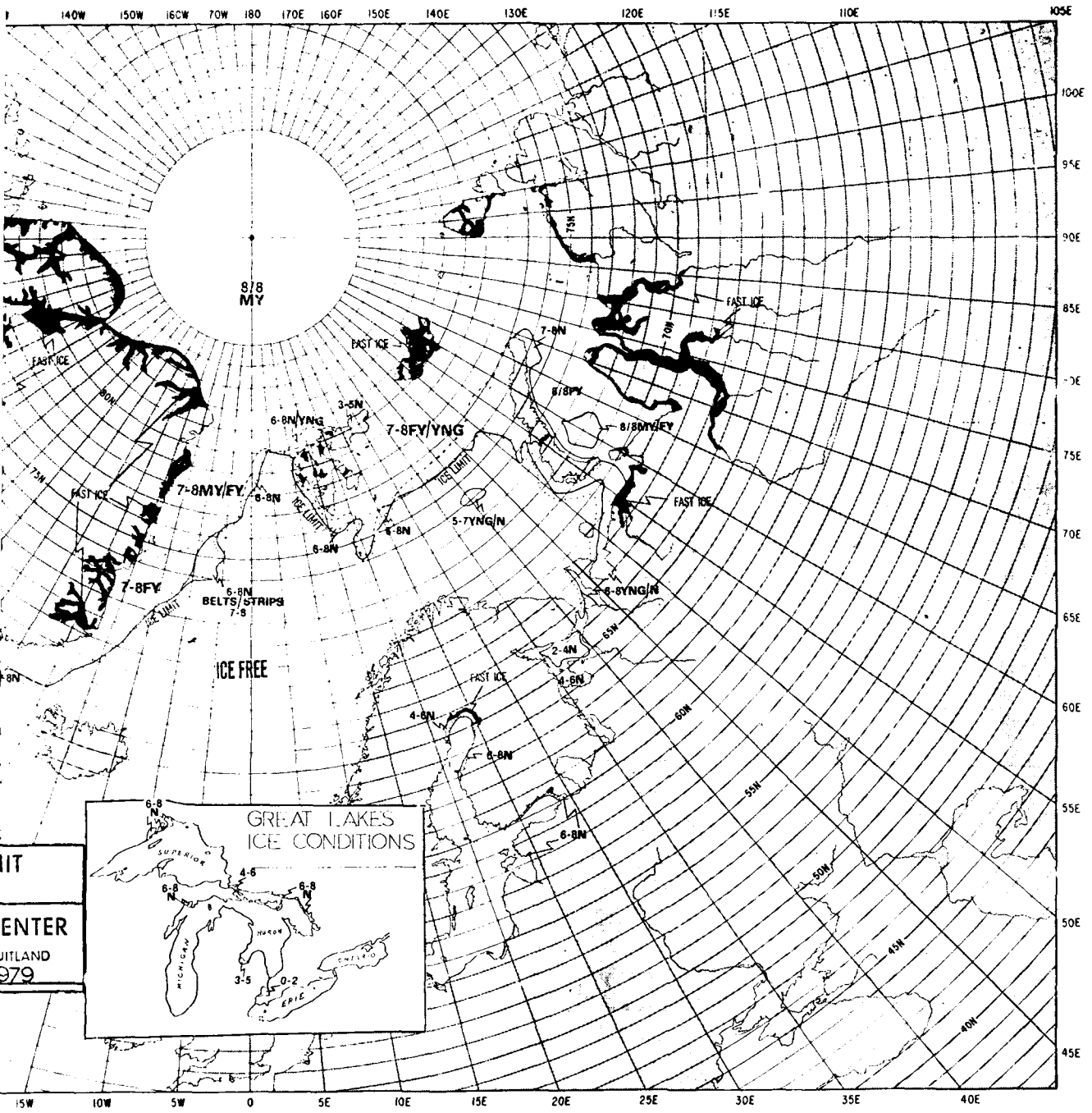

105W
110W
115W
120W
130W
140W
150W
160W
170W
180
170E
160E
100W
95W
90W
85W
80W
75W
70W
65W
60W
55W
50W
45W
40W
35W
30W
25W
20W
15W
10W
5W
0
5E
7-8 N
FAST ICE
8/8 FY
7-8 YNG/FY
7-8 YNG/N
7-8 YNG
7-8 FY
8/8
7-8 MY/FY
6-8 N
6-8 N/YNG
6-8 YNG
7-8 YNG/N
ICE LIMIT
ICE FREE
O/W
1-3
3-5
5-7 N
LEGEND
ICE CONCENTRATION
9/10 Area 9-10 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N Nilas.
Fast Sea ice which forms and remains fast along the coast.
135 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 18 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 16-18 DEC 79



130W
140W
150W
160W
170W
180
170E
160E
150E
140E
130E
120E
115E
110E
105E
20W
15W
10W
5W
0
5E
10E
15E
20E
25E
30E
35E
40E
45E
50E
55E
60E
65E
70E
75E
80E
85E
90E
95E
100E
105E
ICE FREE
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
ICE LIMIT
ICE LIMIT
ICE LIMIT
ICE LIMIT
8/8
7-8
FY
7-8
MY/FY
7-8
FY
7-8
FY/YNG
7-8
FY
YNG
7-8
YNG/N
7-8
N/YNG
O/W
O/W
CE LIMIT
BER 1979
INT ICE CENTER
ARMY CENTER, SUITLAND
8 DEC 79



SOUTHERN ICE LIMIT
Date: 26 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 24-26 DEC 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
GREAT LAKES ICE CONDITIONS
SUPERIOR
MICHIGAN
HURON
ERIE
ONTARIO
ICE FREE
FAST ICE
ICE LIMIT
8/8 FY
8/8 MY
7-8 FY
7-8 YNG
7-8 FY/YNG
7-8 YNG/FY
7-8 YNG/N
7-8MY/FY
7-8FY
7-8FY/YNG
6-8N/YNG
6-8N BELTS/STRIPS
5-7YNG/N



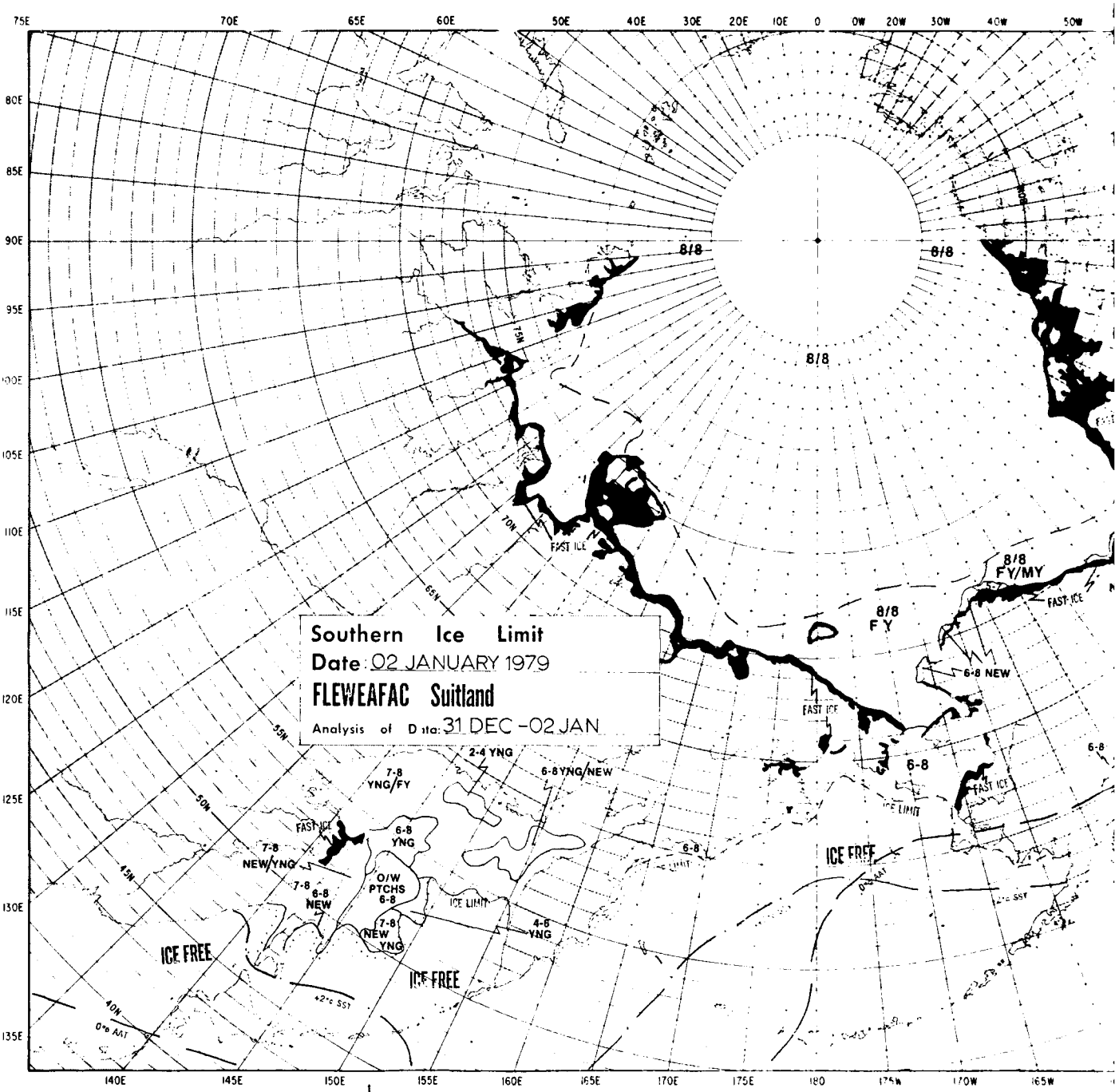
IIT

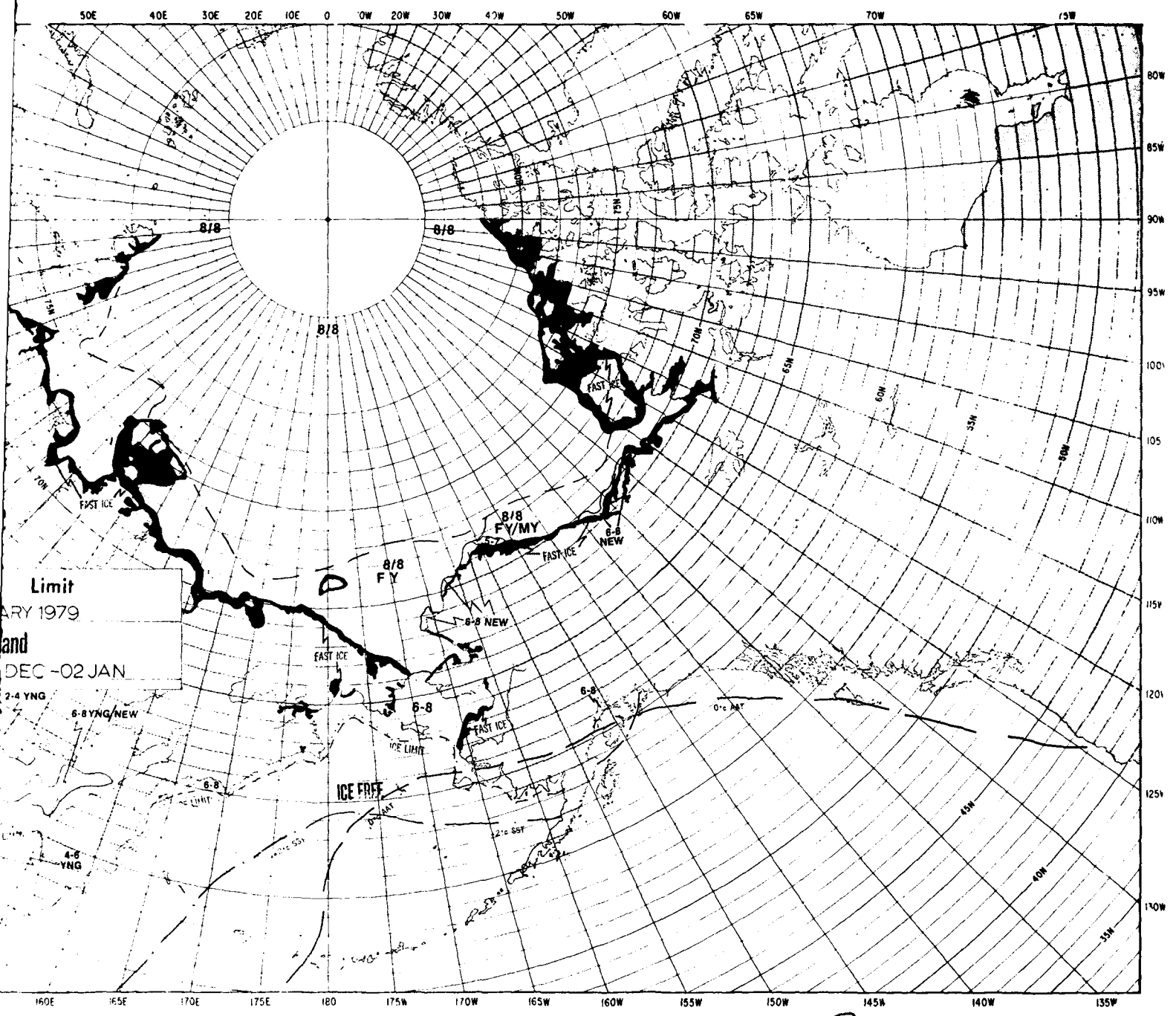
ENTER

UITLAND

979

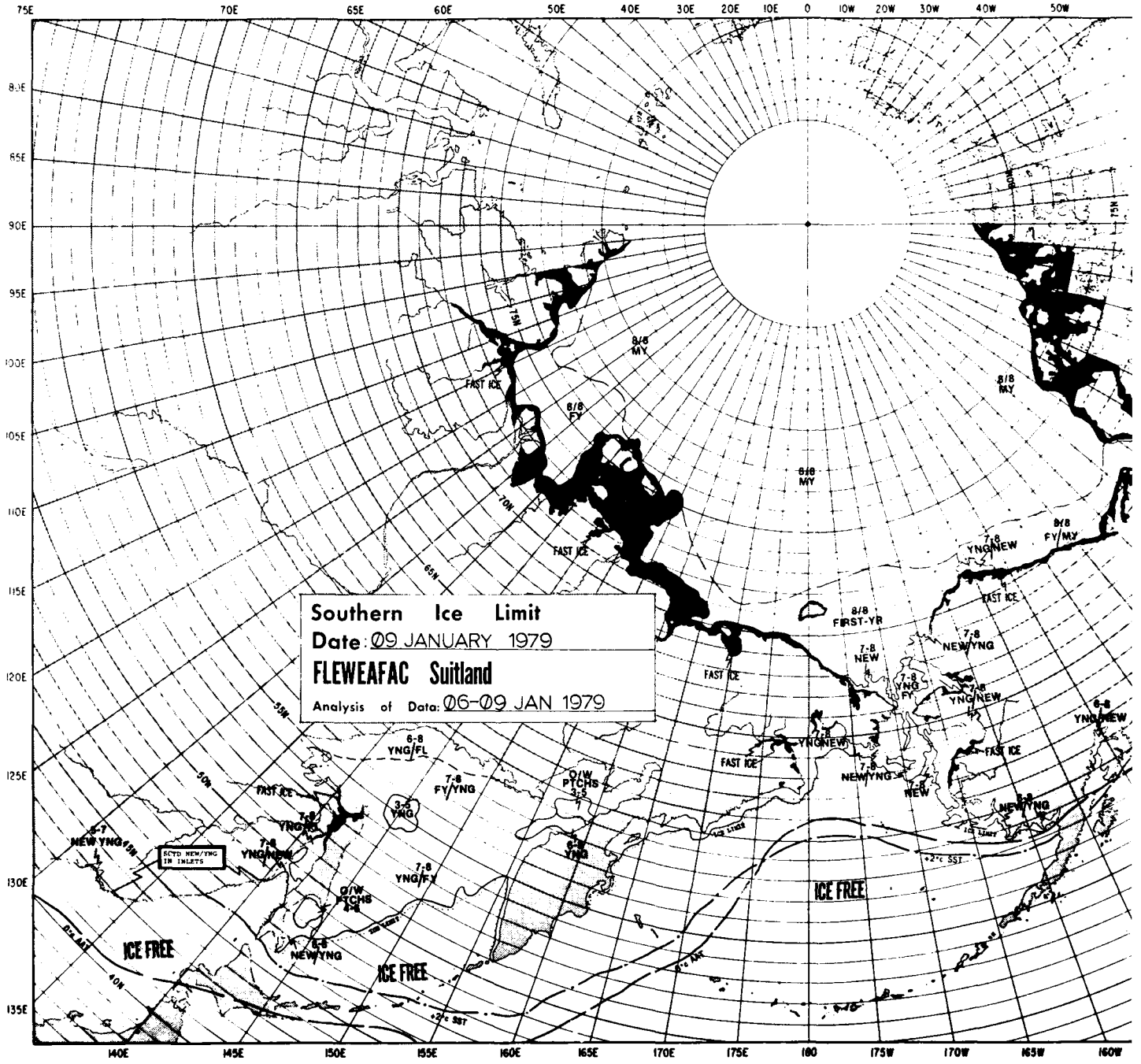
2

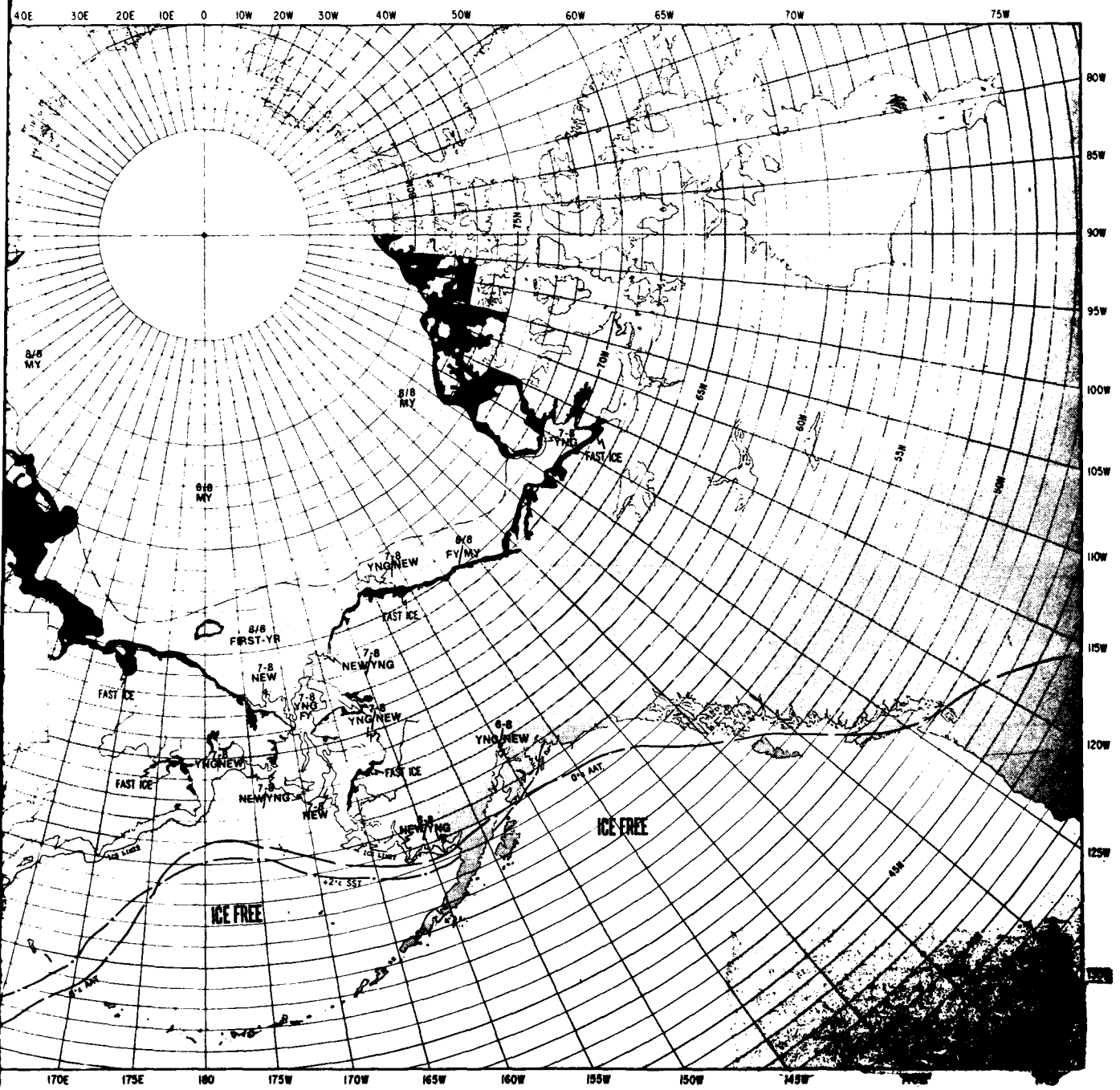

Southern Ice Limit
Date: 02 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 31 DEC -02 JAN
8/8
8/8
8/8
8/8 FY/MY
8/8 FY
FAST ICE
FAST ICE
FAST ICE
FAST ICE
6-8 NEW
6-8
6-8
ICE LIMIT
ICE FREE
ICE FREE
ICE FREE
2-4 YNG
6-8 YNG/NEW
7-8 YNG/FY
6-8 YNG
7-8 NEW/YNG
7-8
6-8 NEW
O/W PTCHS 6-8
7-8 NEW YNG
ICE LIMIT
4-6 YNG
+2°c SST
0°c AAT
75N
70N
65N
55N
50N
45N
40N
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
0W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W



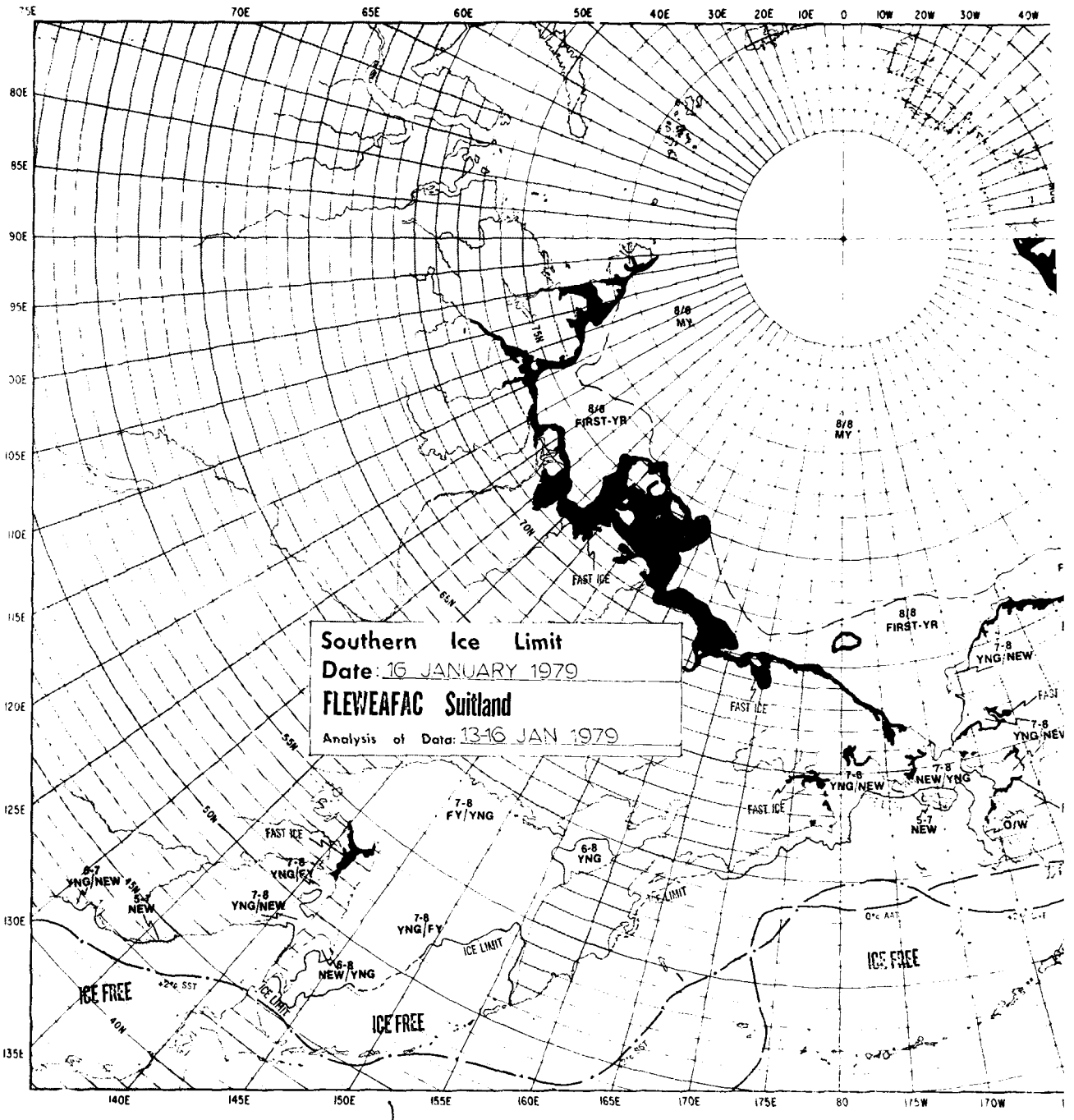
Limit
ARY 1979
land
DEC -02 JAN
8/8
8/8
8/8
8/8
FY/MY
8/8
FY
6-8
NEW
6-8 NEW
FAST ICE
FAST ICE
FAST ICE
FAST ICE
6-8
6-8
6-8
ICE LIMIT
ICE FREE
2-4 YNG
6-8 YNG/NEW
4-6
YNG
0°c AAT
2°c SST
50E
40E
30E
20E
10E
0
20W
30W
50W
60W
65W
70W
80W
85W
90W
95W
100W
105
110W
115W
120W
125W
130W
160E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W

2


Southern Ice Limit
Date: 09 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 06-09 JAN 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
FAST ICE
8/8 MY
8/8 FY
8/8 MY
8/8 MY
8/8 FIRST-YR
8/8 FY/MY
7-8 YNG/NEW
7-8 NEW/YNG
7-8 NEW
7-8 YNG FY
6-8 YNG/FL
7-8 FY/YNG
3-5 YNG
O/W PTCHS 2-5
6-8 YNG
7-8 YNG/FY
6-8 NEW/YNG
6-7 NEW YNG
SCTD NEW/YNG IN INLETS
+2°c SST
75N
70N
65N
55N
50N
40N
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W



40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
8/8 MY
8/8 MY
6/8 MY
7-8 YNG
FAST ICE
8/8 FY/MY
7-8 YNG/NEW
FAST ICE
8/8 FIRST-YR
7-8 NEW/YNG
7-8 NEW
FAST ICE
7-8 YNG FY
7-8 YNG/NEW
6-8 YNG/NEW
7-8 YNG/NEW
FAST ICE
FAST ICE
7-8 NEW/YNG
7-8 NEW
6-8 NEW/YNG
ICE FREE
ICE FREE
0°C AAT
+2°C SST


Southern Ice Limit
Date: 16 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 13-16 JAN 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
ICE LIMIT
ICE LIMIT
8/8 MY
8/8 FIRST-YR
8/8 MY
8/8 FIRST-YR
7-8 YNG/NEW
7-8 NEW/YNG
7-8 YNG/NEW
5-7 NEW
O/W
7-8 FY/YNG
6-8 YNG
7-8 YNG/FY
7-8 YNG/NEW
5-7 YNG/NEW
5-7 NEW
7-8 YNG/FY
6-8 NEW/YNG
+24° SST
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
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165E
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175E
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175W
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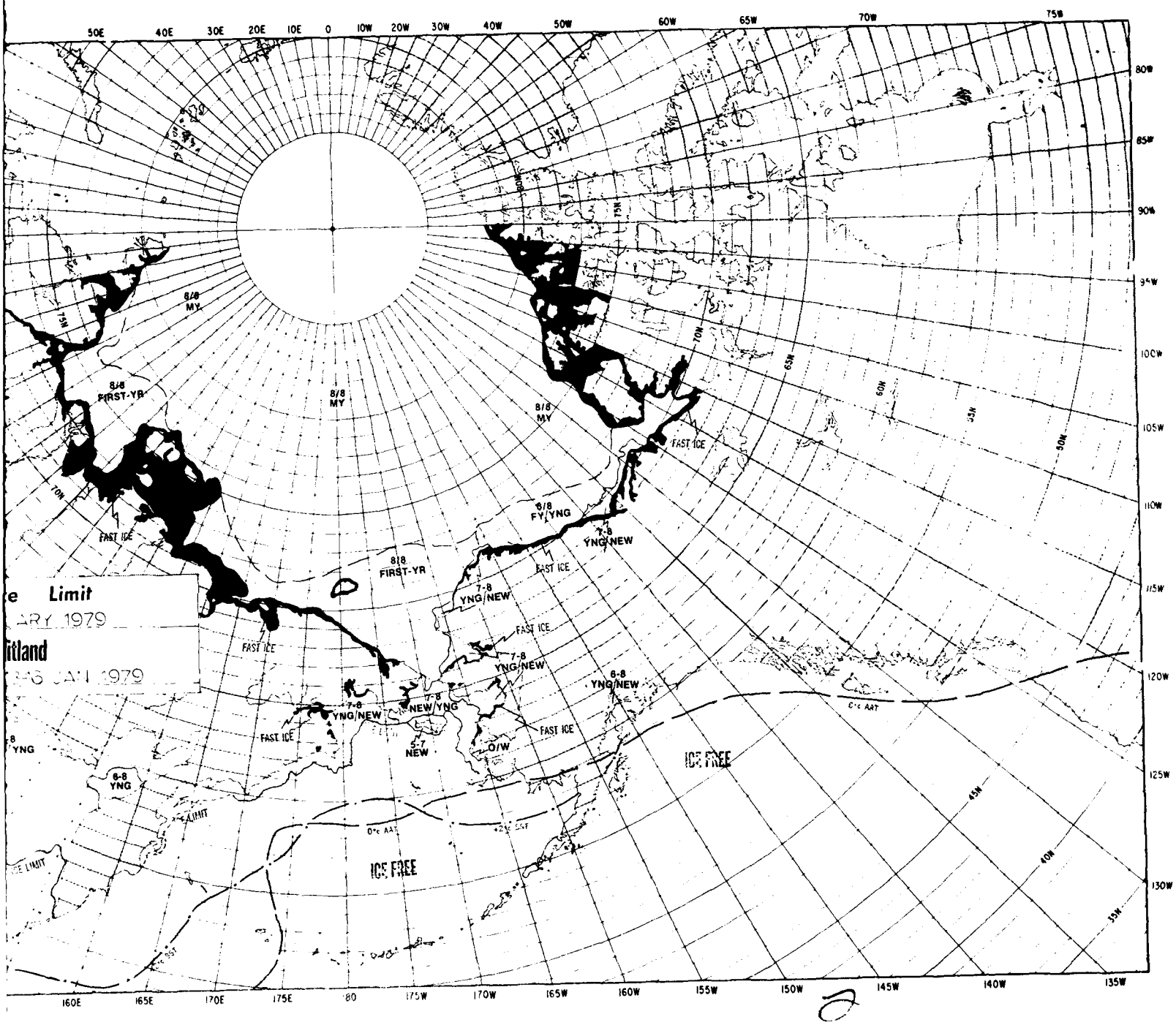
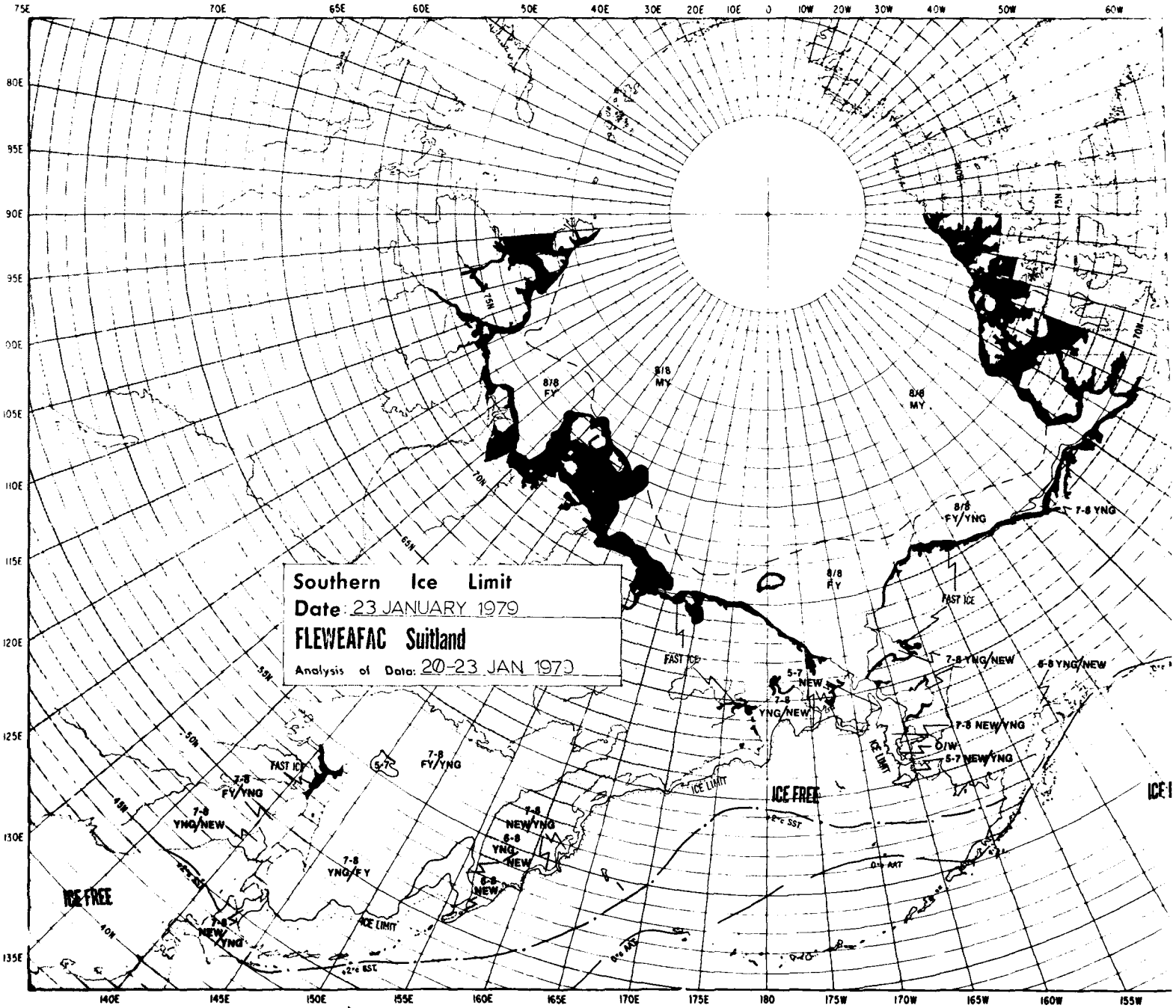
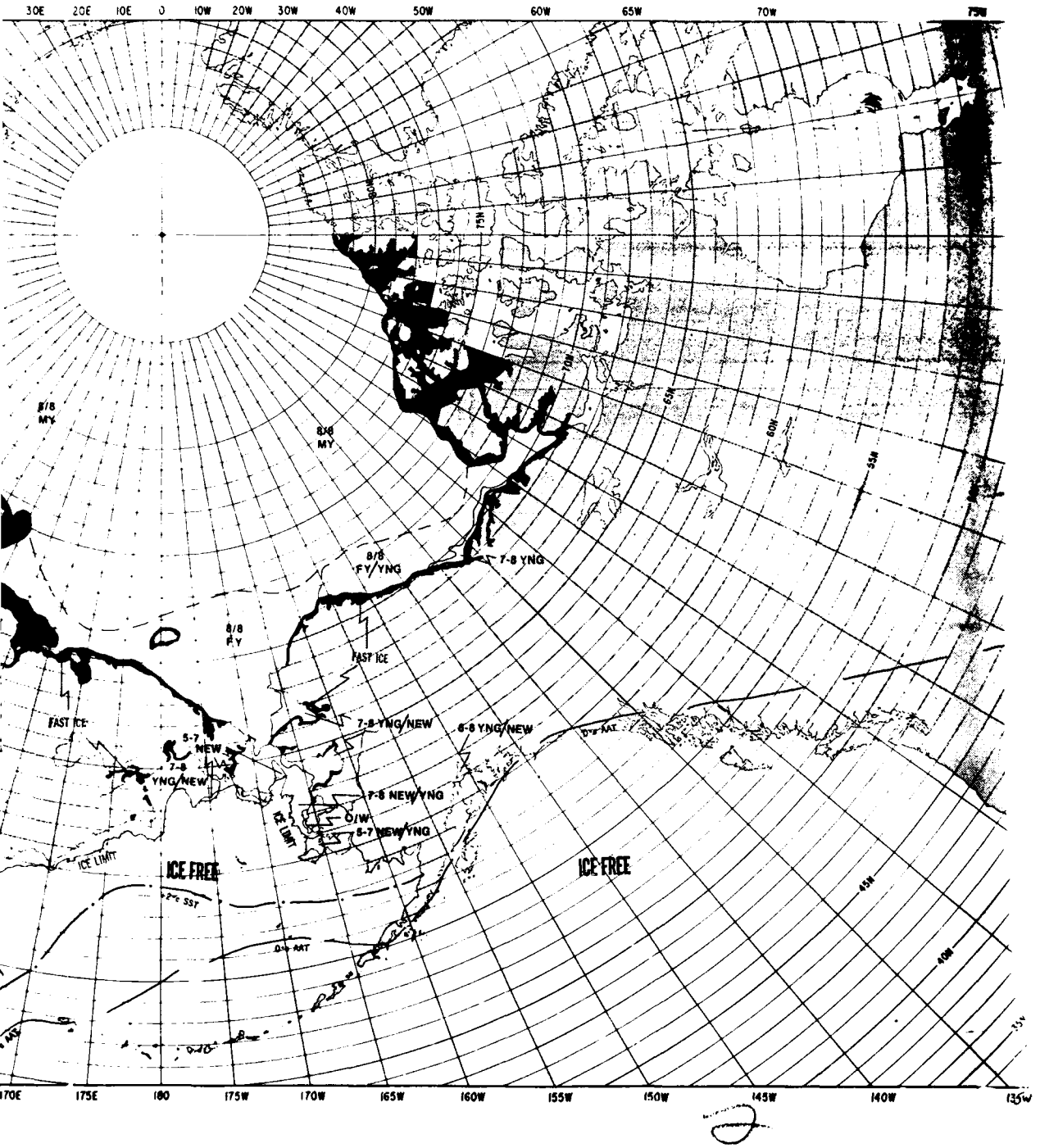
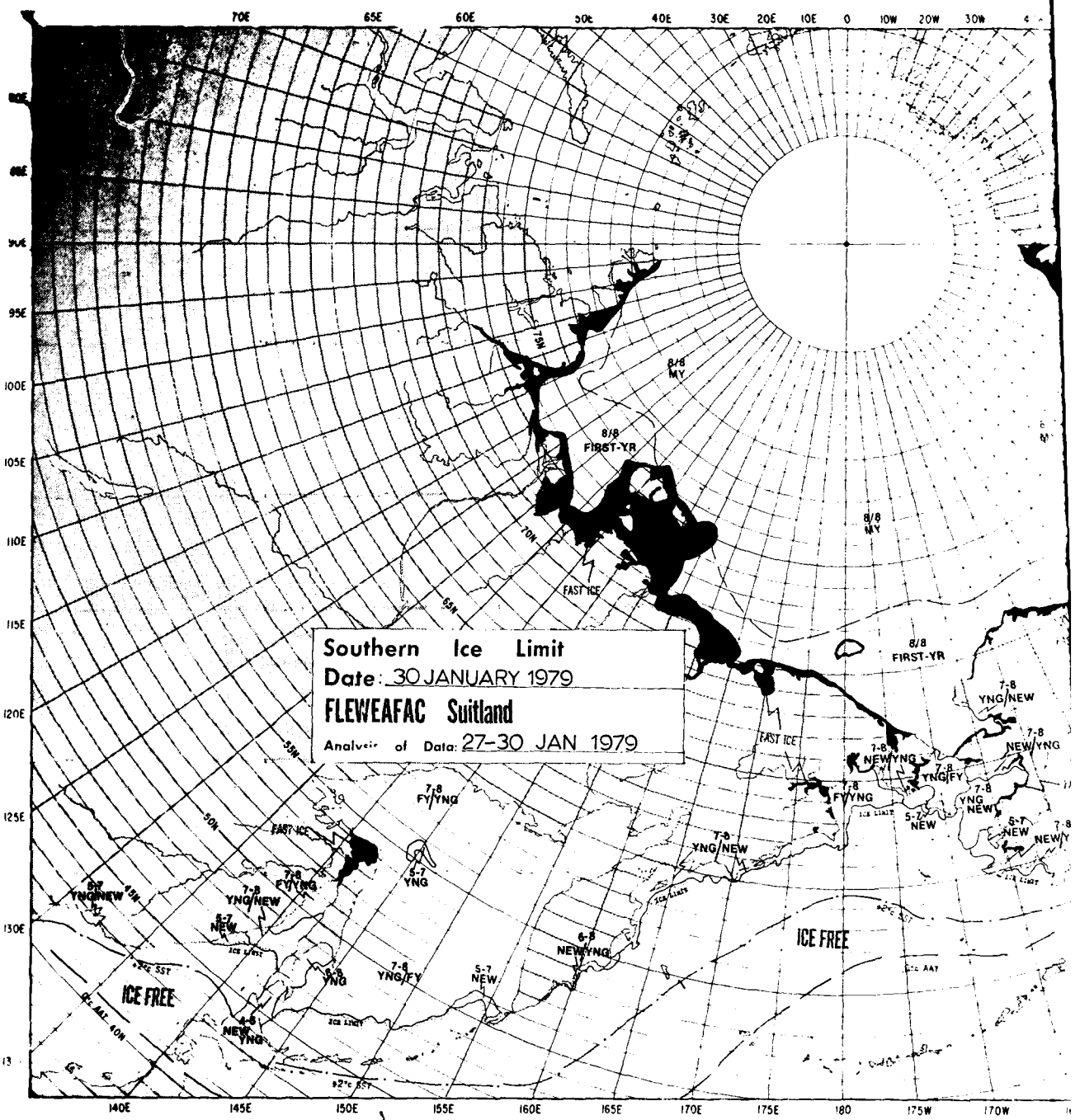
70N
65N
55N
50N
40N

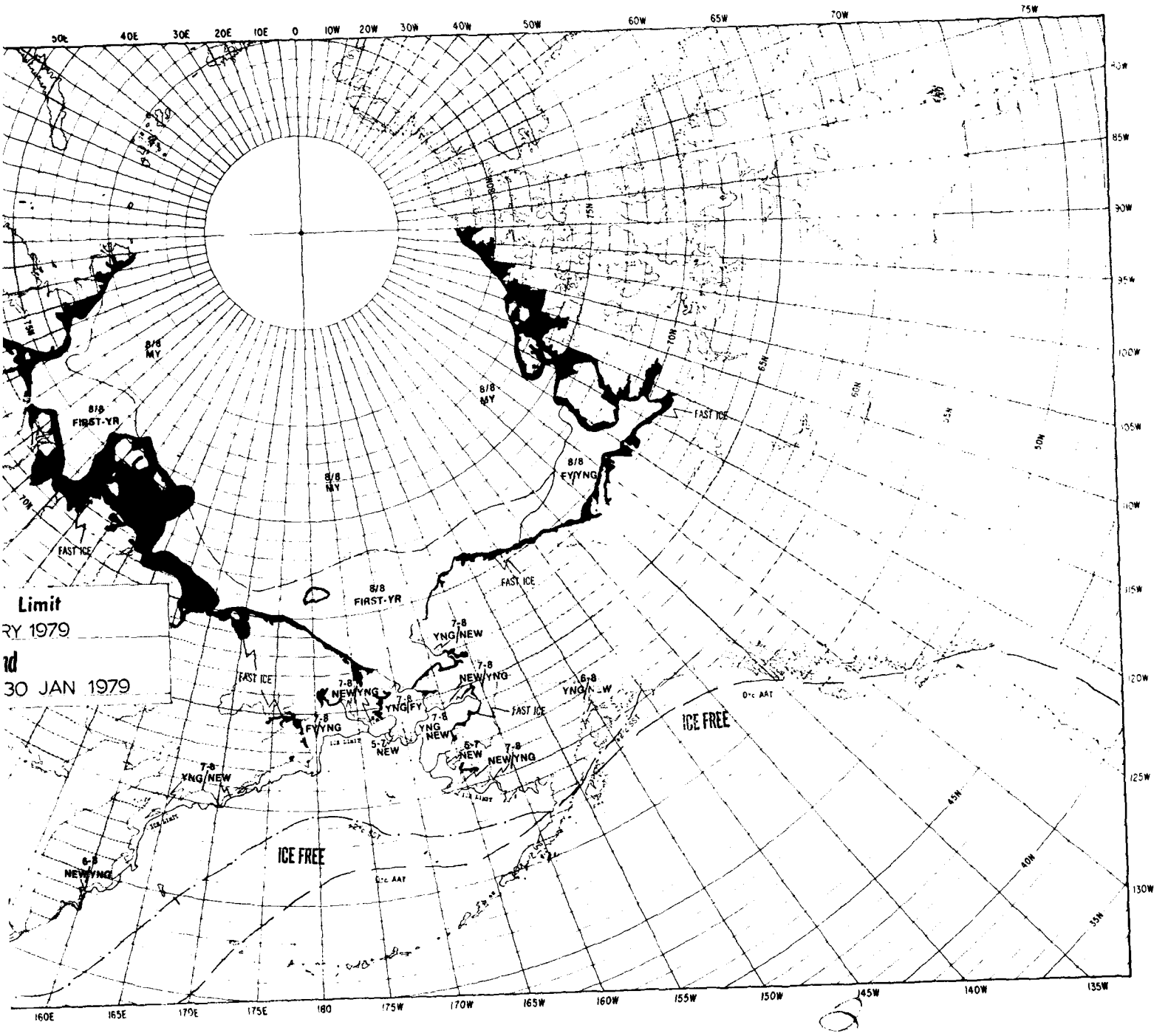


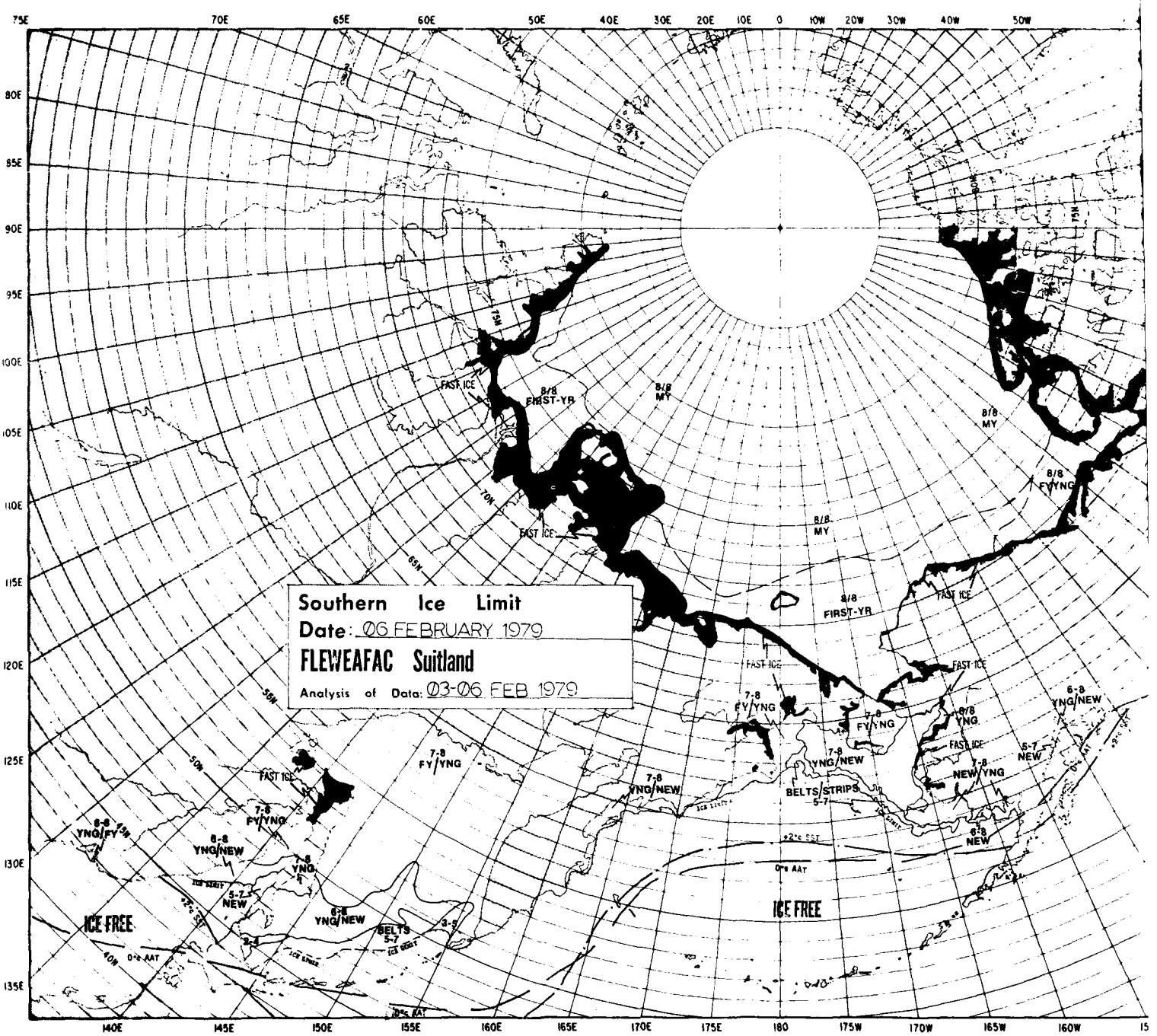
e Limit
ARY 1979
itland
JAN 1979
8/8 MY
8/8 FIRST-YR
8/8 MY
8/8 MY
8/8 FIRST-YR
6/8 FY/YNG
7-8 YNG/NEW
7-8 YNG/NEW
7-8 YNG/NEW
7-8 YNG/NEW
7-8 NEW/YNG
5-7 NEW
6-8 YNG/NEW
6-8 YNG
FAST ICE
O/W
ICE FREE
ICE FREE
0°c AAT

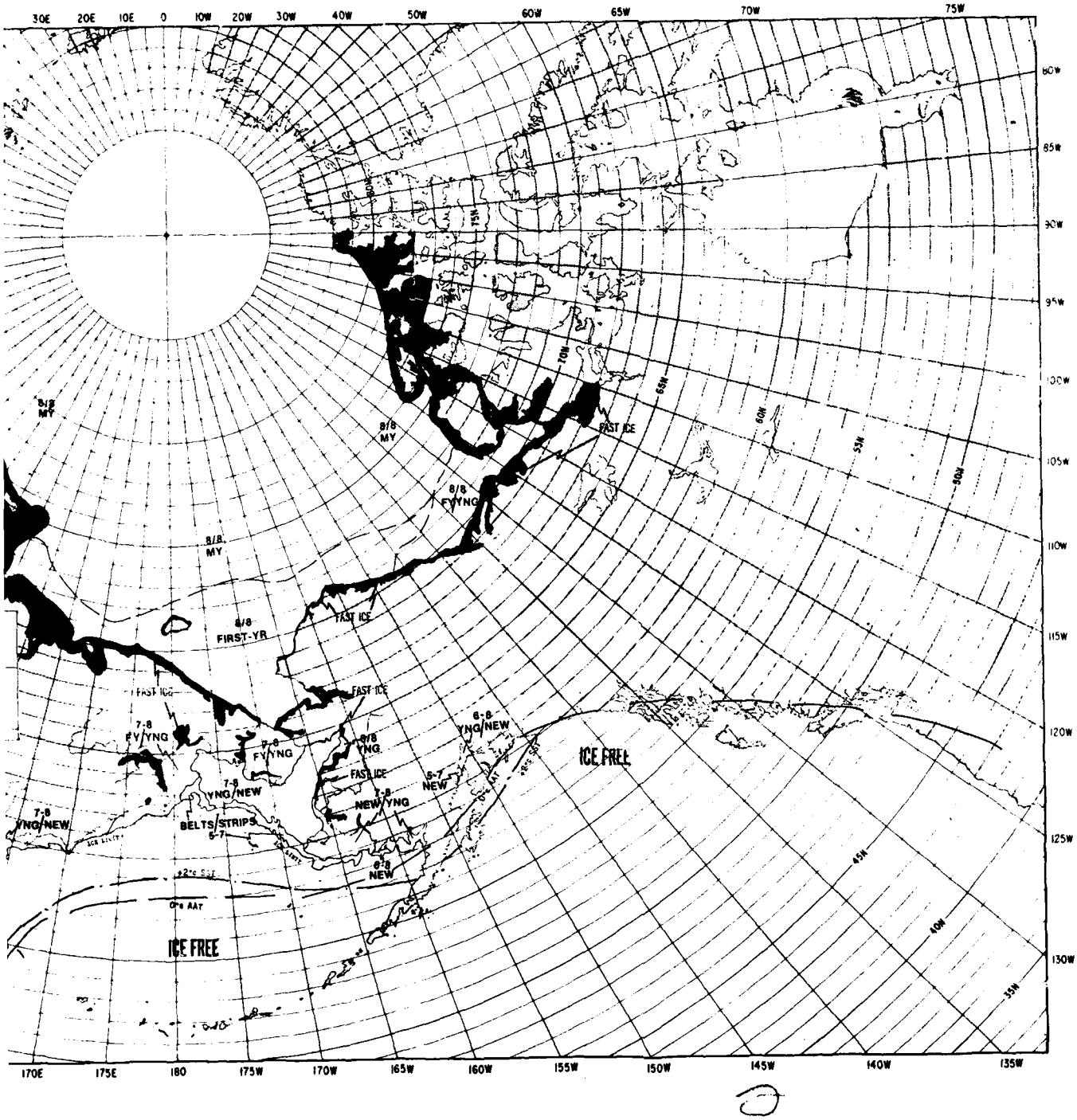

Southern Ice Limit
Date: 23 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 20-23 JAN 1979
ICE FREE
ICE LIMIT
FAST ICE
8/8 FY
8/8 MY
7-8 YNG
7-8 FY/YNG
7-8 YNG/NEW
7-8 NEW/YNG
6-8 YNG/NEW
5-7 NEW
5-7 NEW/YNG
7-8 NEW/YNG
6-8 YNG/NEW
6-8 NEW
7-8 YNG/FY
7-8 NEW/YNG
0/W
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
155W

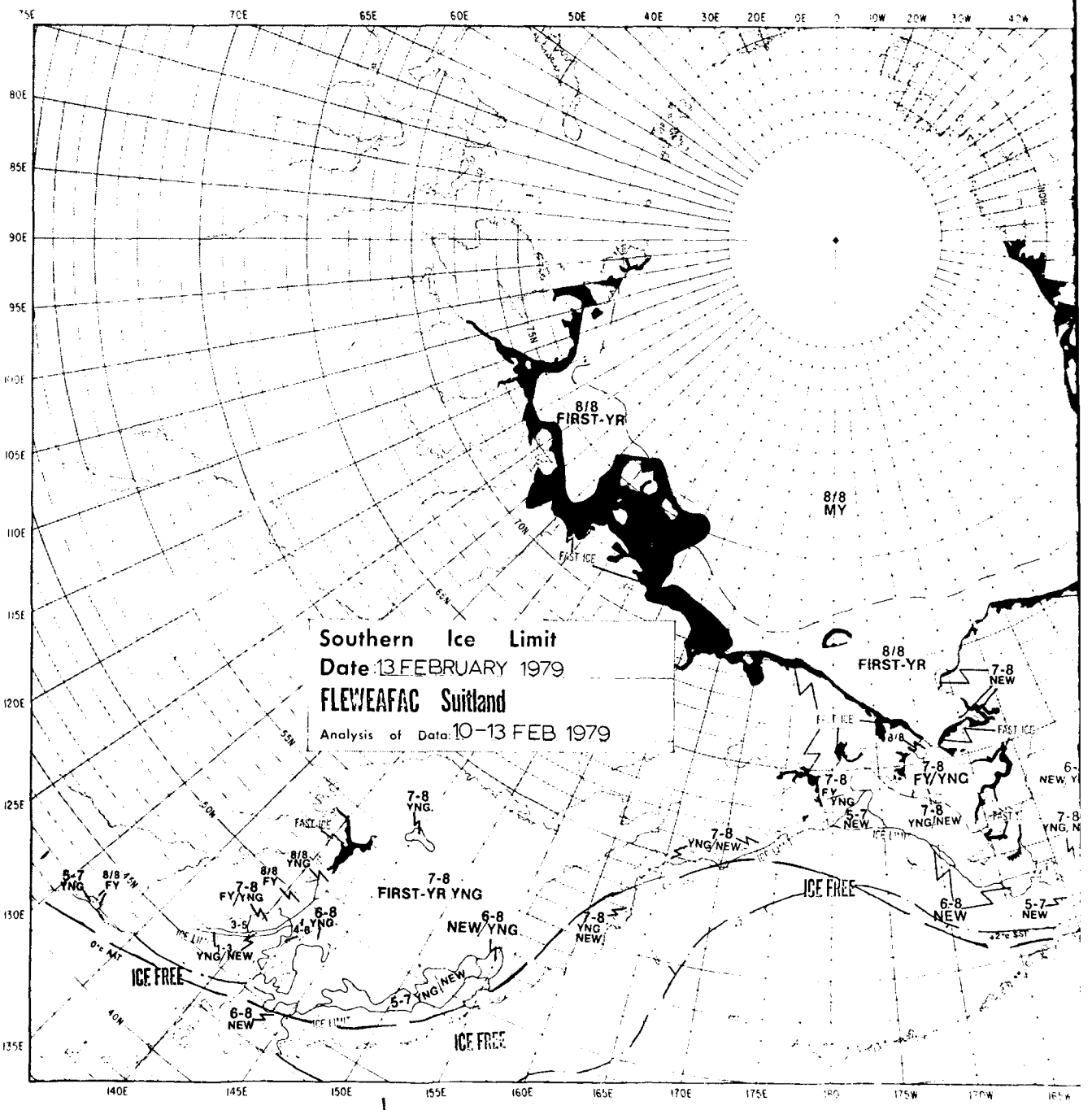

30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
8/8 MY
8/8 MY
8/8 FY/YNG
7-8 YNG
8/8 FY
FAST ICE
FAST ICE
5-7 NEW
7-8 YNG/NEW
7-8 YNG/NEW
6-8 YNG/NEW
7-8 NEW/YNG
O/W
5-7 NEW/YNG
ICE LIMIT
ICE LIMIT
ICE FREE
ICE FREE
2°c SST
0°c AAT
0°c AAT
75N
70N
65N
60N
55N
45N
40N
35N
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W

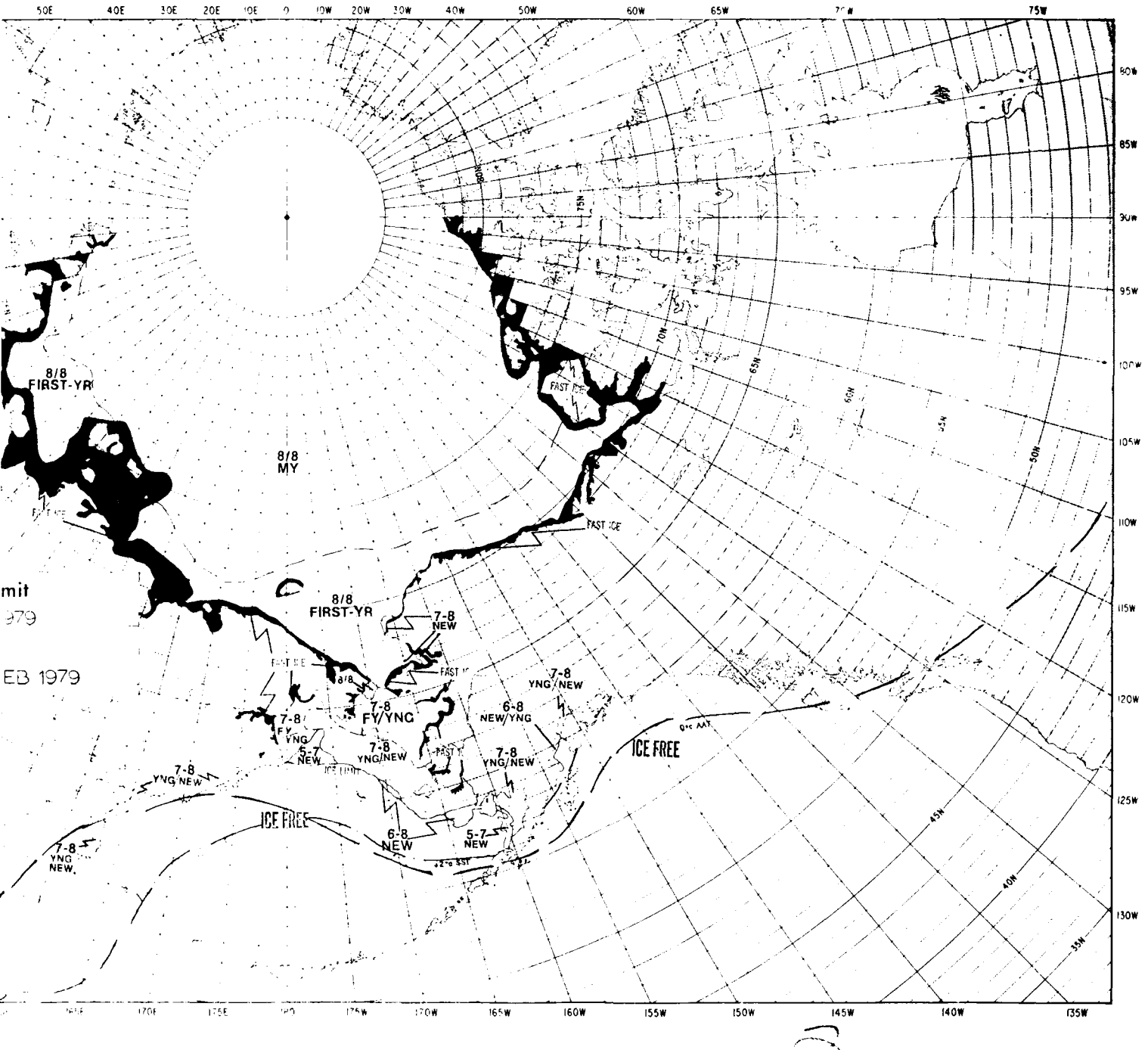

Southern Ice Limit
Date: 30 JANUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 27-30 JAN 1979
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
8/8 MY
8/8 FIRST-YR
8/8 MY
8/8 FIRST-YR
7-8 YNG/NEW
7-8 NEW/YNG
7-8 YNG/FY
7-8 FY/YNG
7-8 YNG/NEW
5-7 NEW
7-8 FY/YNG
5-7 YNG
7-8 YNG/NEW
5-7 NEW
6-8 NEW/YNG
7-8 YNG/FY
5-7 NEW
6-8 YNG
4-8 NEW/YNG
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
95E
100E
105E
110E
115E
120E
125E
130E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W


Limit
RY 1979
ld
30 JAN 1979
8/8 MY
8/8 FIRST-YR
8/8 FY/YNG
FAST ICE
7-8 YNG/NEW
7-8 NEW/YNG
7-8 FY/YNG
6-8 YNG/NEW
5-7 NEW
ICE FREE
0°c AAT
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
145W
150W
155W
160W
165W
170W
175W
180
175E
170E
165E
160E

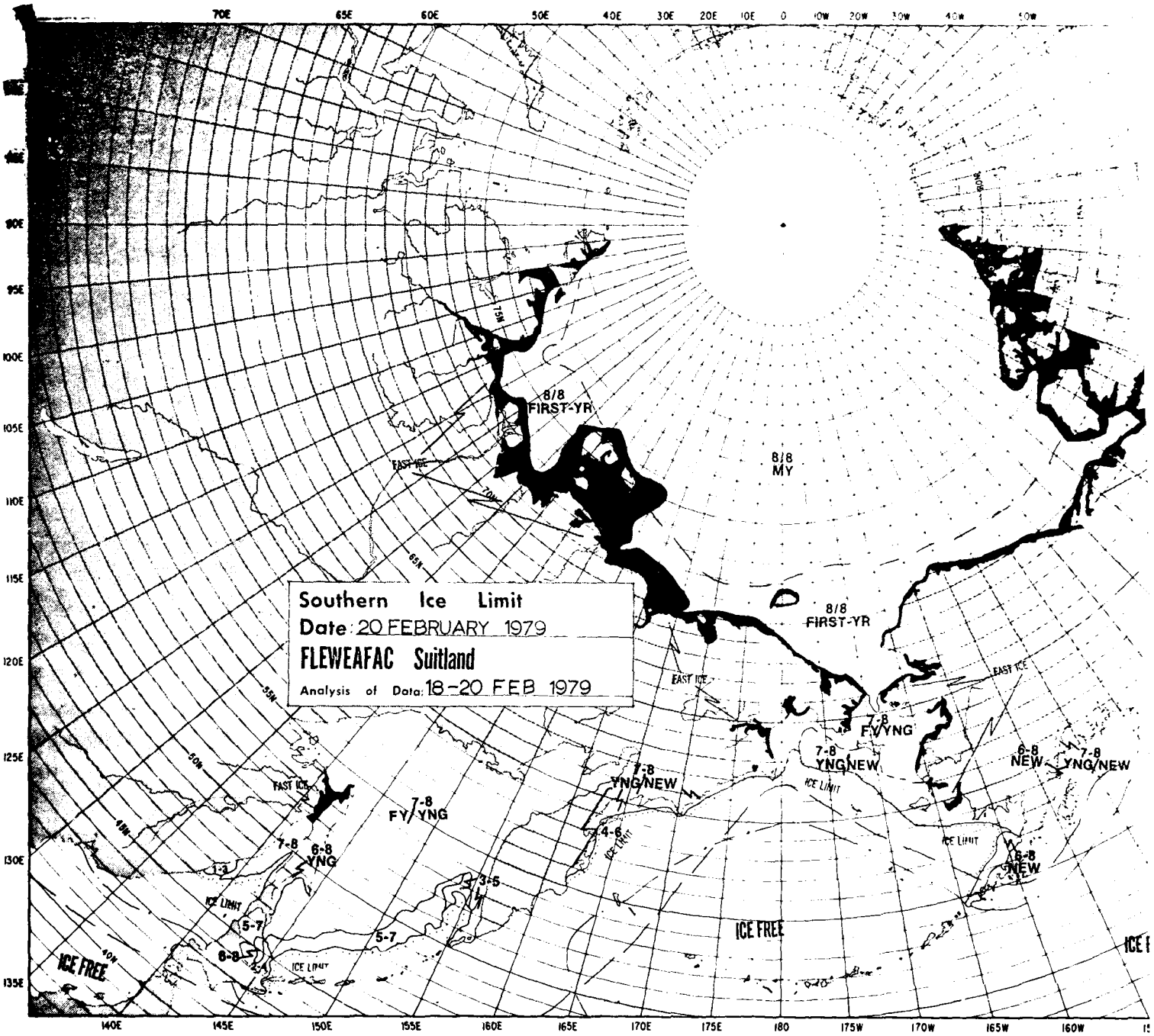

Southern Ice Limit
Date: 06 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 03-06 FEB 1979
ICE FREE
ICE FREE
FAST ICE
8/8 FIRST-YR
8/8 MY
8/8 FY/YNG
7-8 FY/YNG
7-8 YNG/NEW
6-8 YNG/NEW
6-8 NEW
5-7 NEW
7-8 NEW/YNG
8/8 YNG
BELTS/STRIPS
5-7
BELTS 5-7
3-5
2-4
0°c AAT
+2°c SST
75N
70N
65N
50N
40N

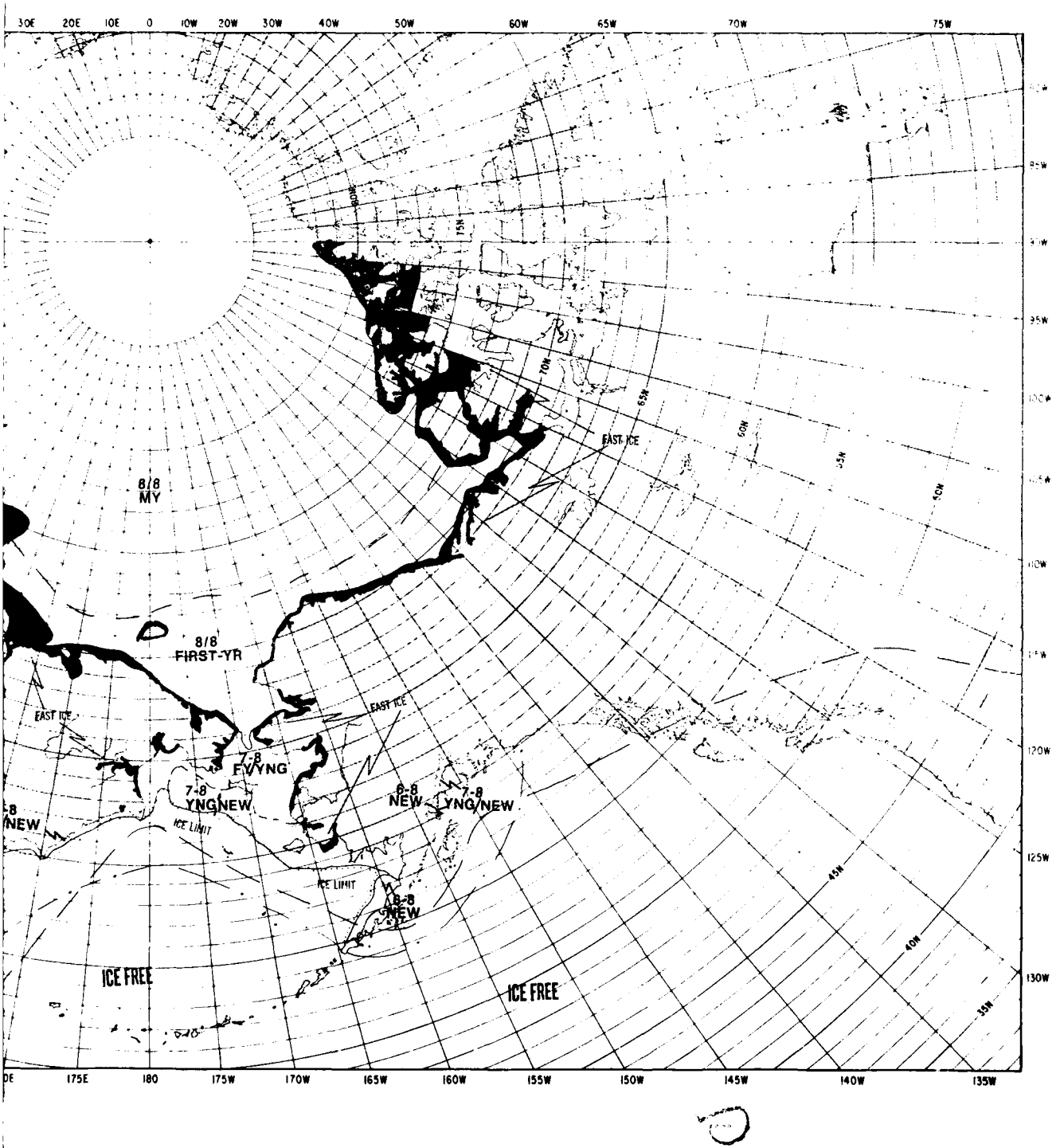

30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
65N
60N
55N
50N
45N
40W
35N
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8 MY
8/8 MY
8/8 FY/YNG
8/8 MY
8/8 FIRST-YR
FAST ICE
FAST ICE
FAST ICE
FAST ICE
7-8 FY/YNG
7-8 FY/YNG
8/8 YNG
7-8 YNG/NEW
7-8 YNG/NEW
BELTS/STRIPS 5-7
FAST ICE
7-8 NEW/YNG
5-7 NEW
6-8 YNG/NEW
ICE FREE
6-8 NEW
ICE FREE

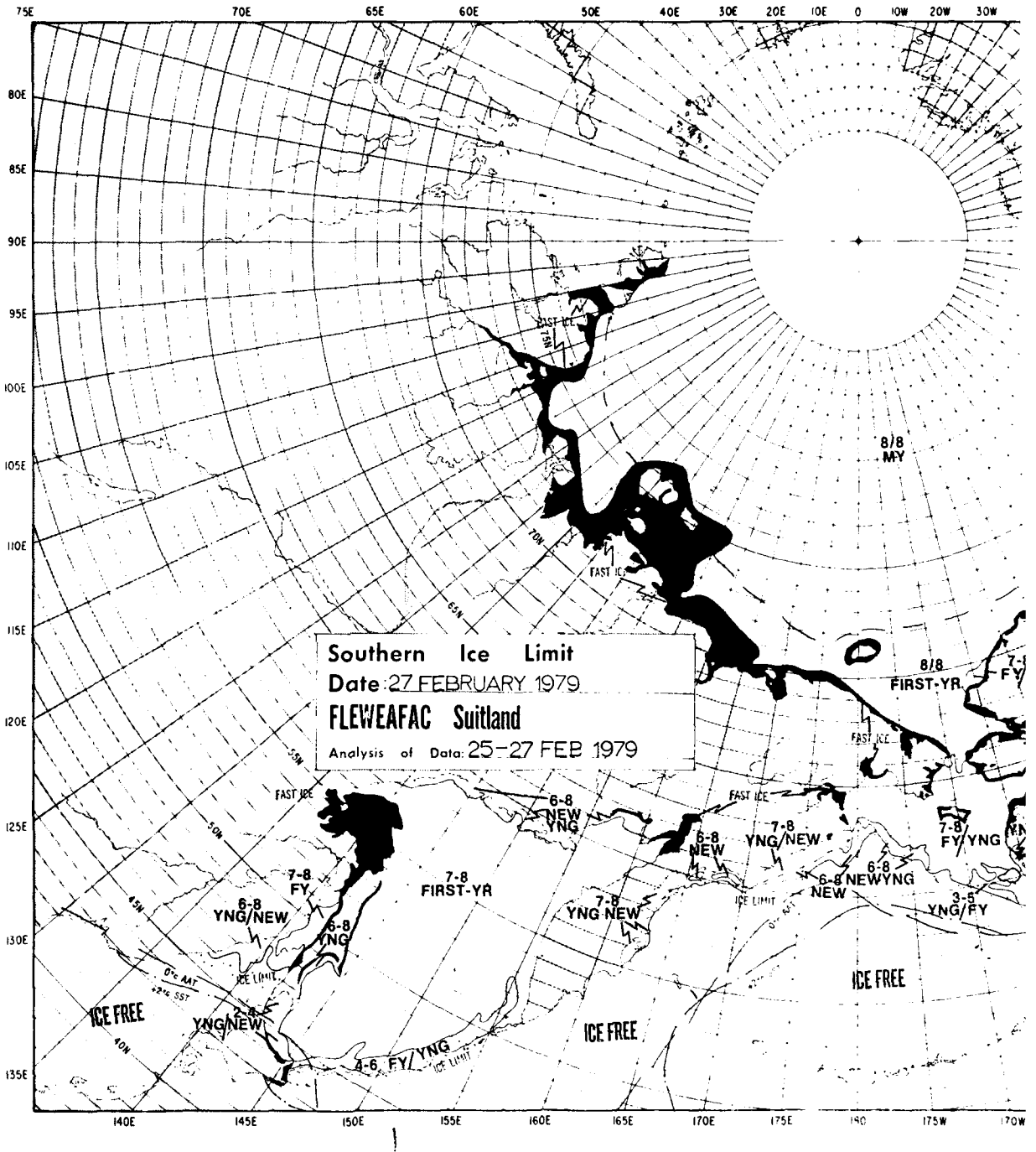

Southern Ice Limit
Date 13 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data 10-13 FEB 1979
8/8 FIRST-YR
8/8 MY
8/8 FIRST-YR
7-8 NEW
7-8 FY/YNG
7-8 YNG/NEW
7-8 FY YNG
5-7 NEW
7-8 YNG.
7-8 FIRST-YR YNG
6-8 NEW/YNG
7-8 YNG NEW
5-7 YNG/NEW
6-8 NEW
5-7 YNG
8/8 FY
7-8 FY/YNG
8/8 YNG
6-8 YNG
1-3 YNG/NEW
ICE FREE
FAST ICE
ICE LIMIT
0°C MAT
75N
70N
65N
55N
50N
45N
40N
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W

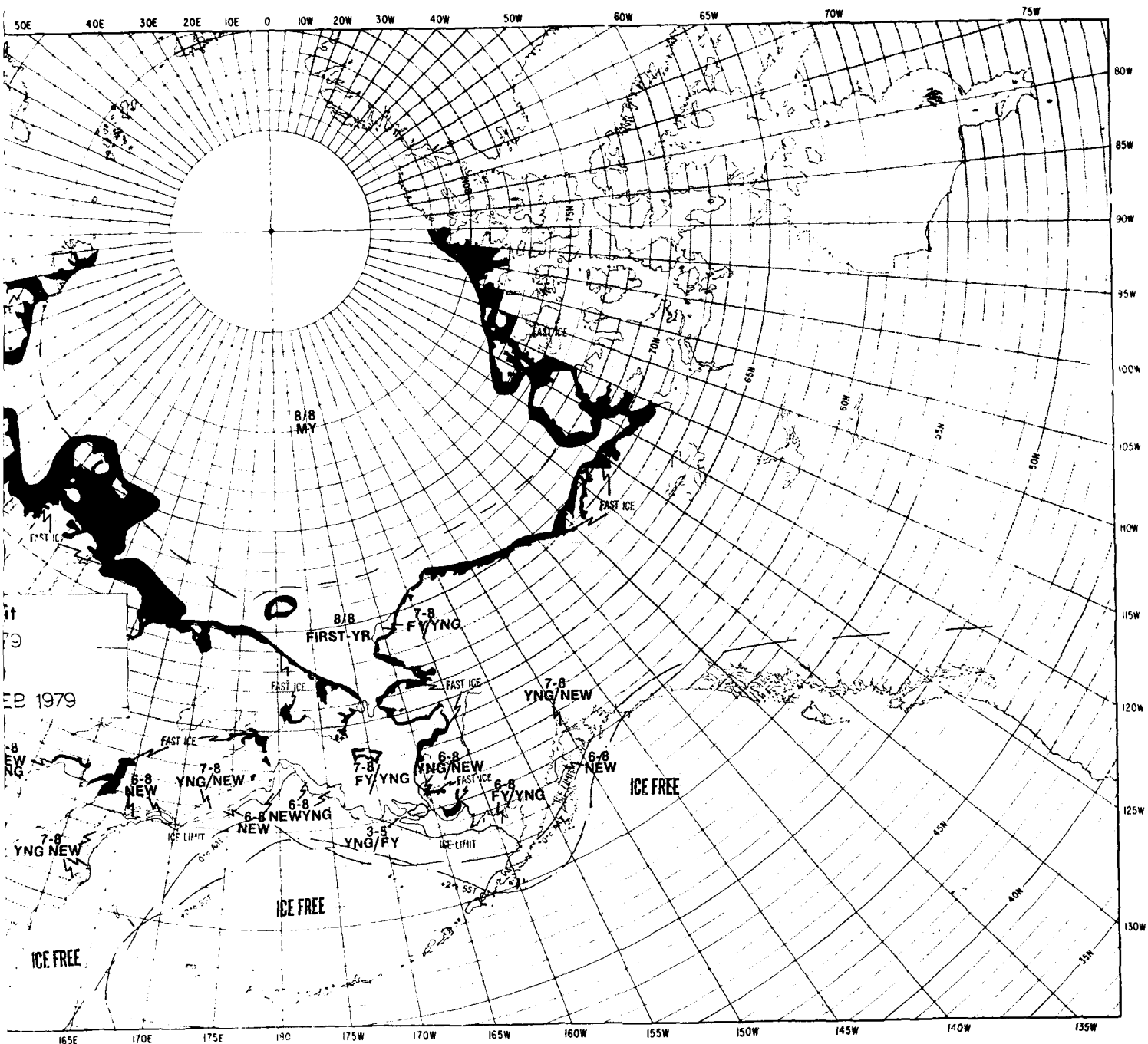


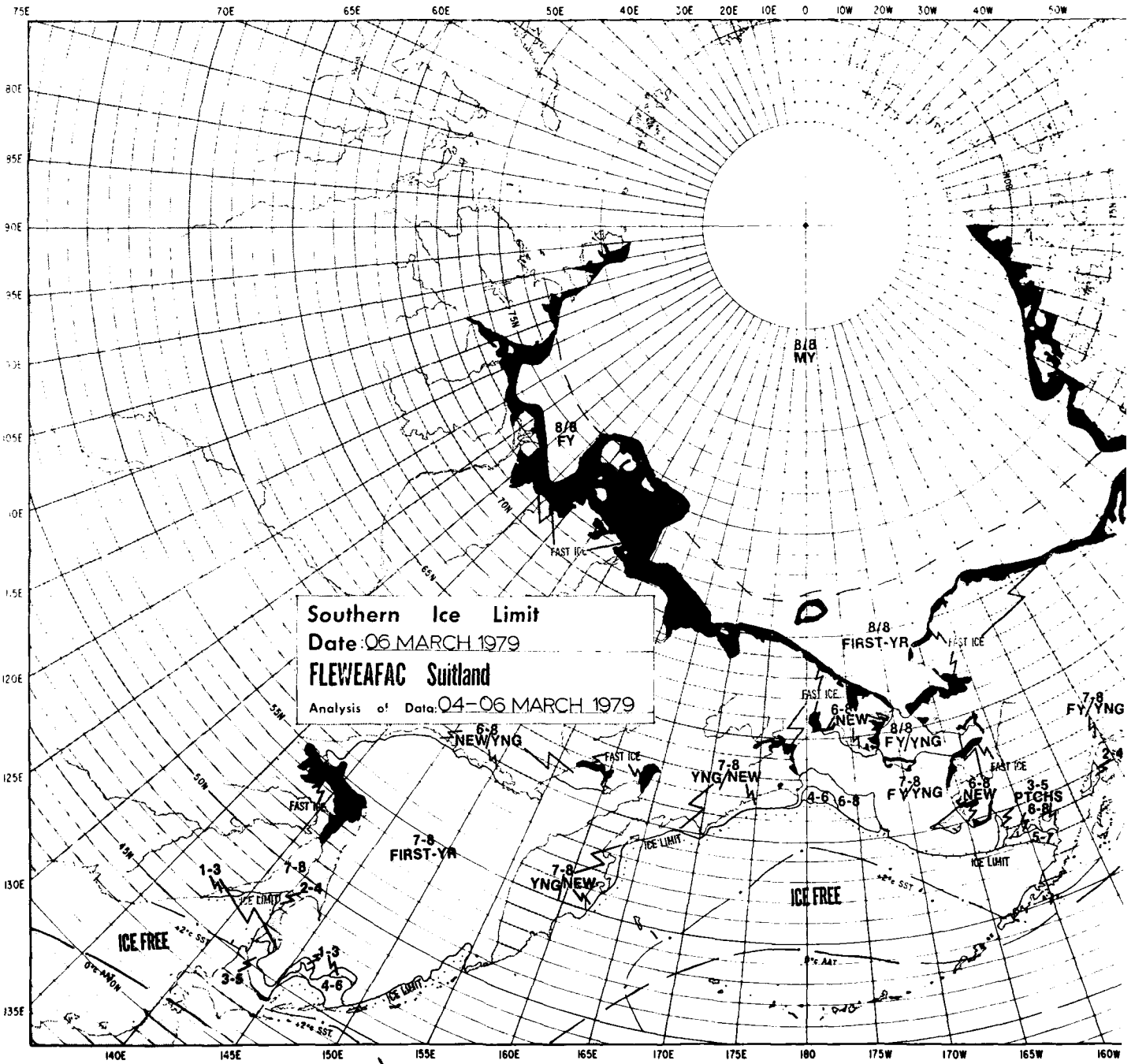
8/8
FIRST-YR
8/8
MY
FAST ICE
8/8
FIRST-YR
7-8
NEW
7-8
FY/YNG
7-8
YNG/NEW
6-8
NEW/YNG
7-8
YNG/NEW
7-8
FY
YNG
5-7
NEW
7-8
YNG/NEW
7-8
YNG/NEW
ICE FREE
ICE FREE
6-8
NEW
5-7
NEW
7-8
YNG
NEW
mit
979
EB 1979

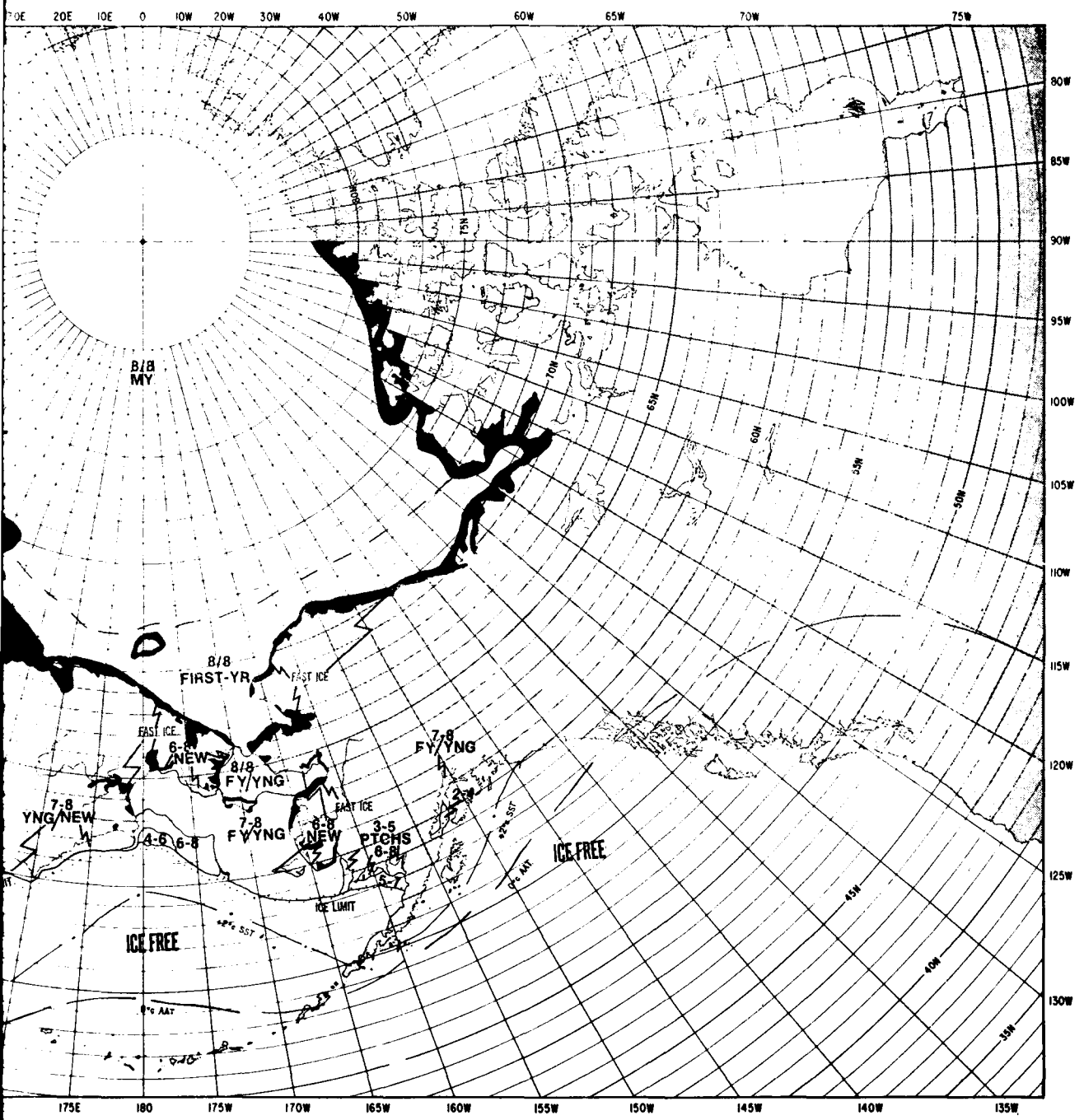

Southern Ice Limit
Date: 20 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 18-20 FEB 1979
8/8 FIRST-YR
8/8 MY
8/8 FIRST-YR
7-8 FY/YNG
7-8 YNG/NEW
7-8 YNG/NEW
6-8 NEW
7-8 YNG/NEW
6-8 NEW
7-8 FY/YNG
7-8 6-8 YNG
4-6
3-5
5-7
5-7
6-8
1-3
2-4
EAST ICE
ICE LIMIT
ICE FREE
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W


30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
80N
75N
70N
65N
60N
55N
50N
45N
40N
35N
8/8
MY
8/8
FIRST-YR
EAST ICE
EAST ICE
EAST ICE
7-8
F/YNG
7-8
YNG/NEW
6-8
NEW
7-8
YNG/NEW
8-8
NEW
ICE LIMIT
ICE LIMIT
ICE FREE
ICE FREE

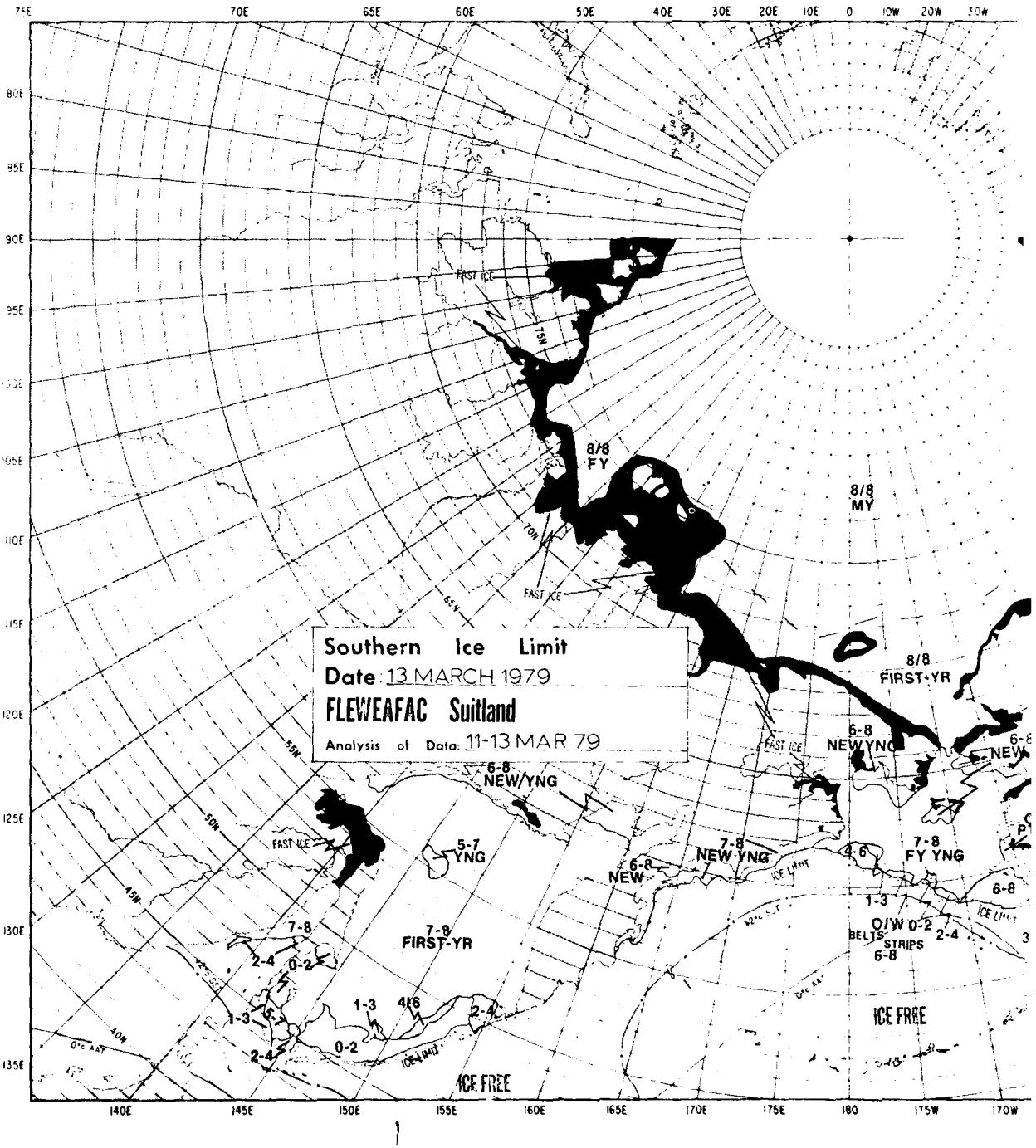

Southern Ice Limit
Date: 27 FEBRUARY 1979
FLEWEAFAC Suitland
Analysis of Data: 25-27 FEB 1979
8/8 MY
8/8 FIRST-YR
FAST ICE
7-8 FY
6-8 YNG/NEW
6-8 YNG
7-8 FIRST-YR
6-8 NEW YNG
6-8 NEW
7-8 YNG/NEW
7-8 FY/YNG
6-8 NEW YNG
3-6 YNG/FY
7-8 YNG NEW
ICE LIMIT
ICE FREE
2-6 YNG/NEW
4-6 FY/YNG
0°c AAT
-2°c SST
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
70N
65N
55N
50N
45N
40N

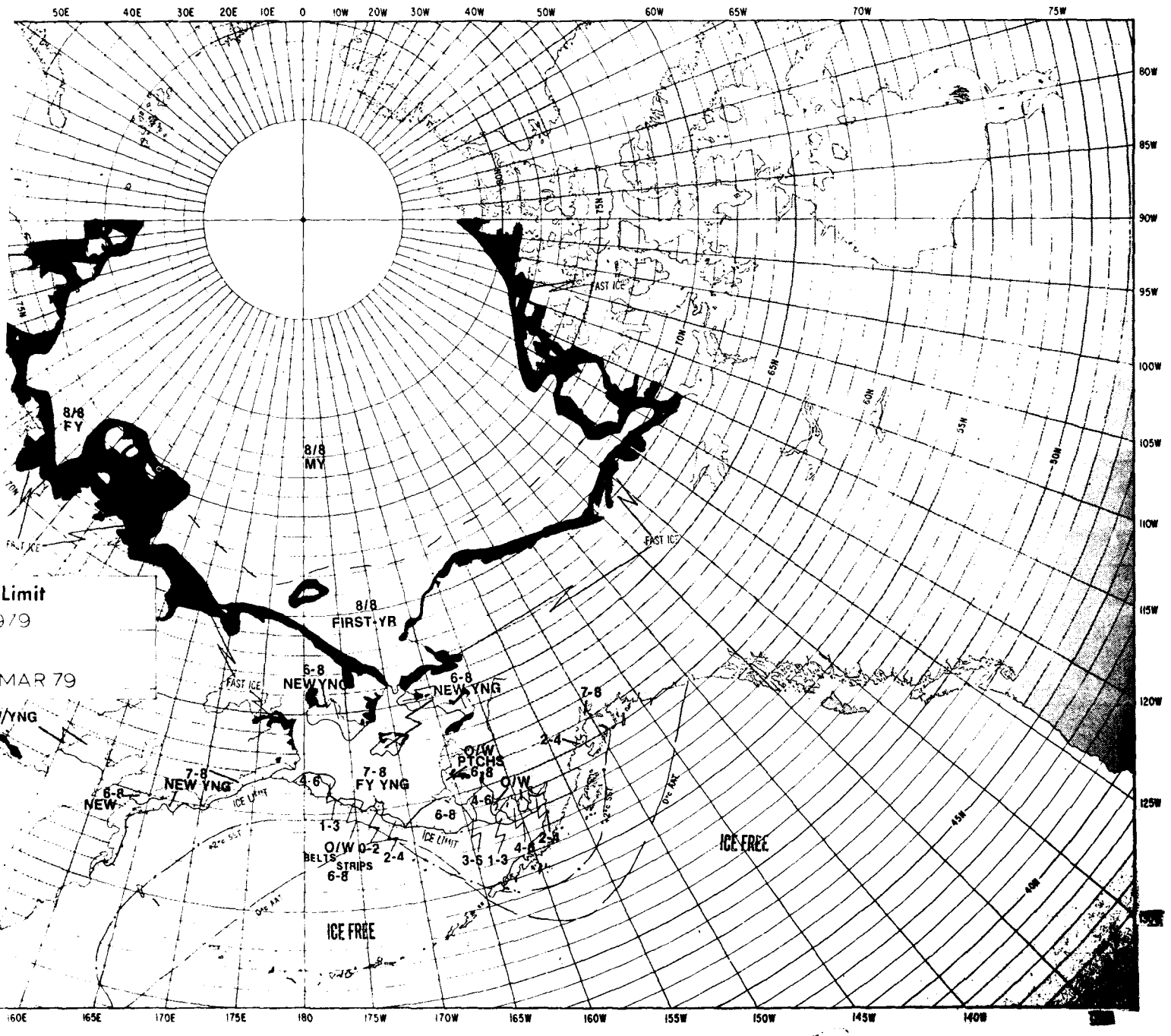

50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
FAST ICE
8/8
FIRST-YR
7-8
FY/YNG
FAST ICE
FAST ICE
7-8
YNG/NEW
FAST ICE
6-8
NEW
7-8
YNG/NEW
7-8
FY/YNG
6-8
YNG/NEW
FAST ICE
6-8
FY/YNG
6-8
NEW
ICE FREE
6-8
NEW
6-8
NEWYNG
3-5
YNG/FY
ICE LIMIT
ICE LIMIT
7-8
YNG NEW
ICE FREE
ICE FREE
EB 1979

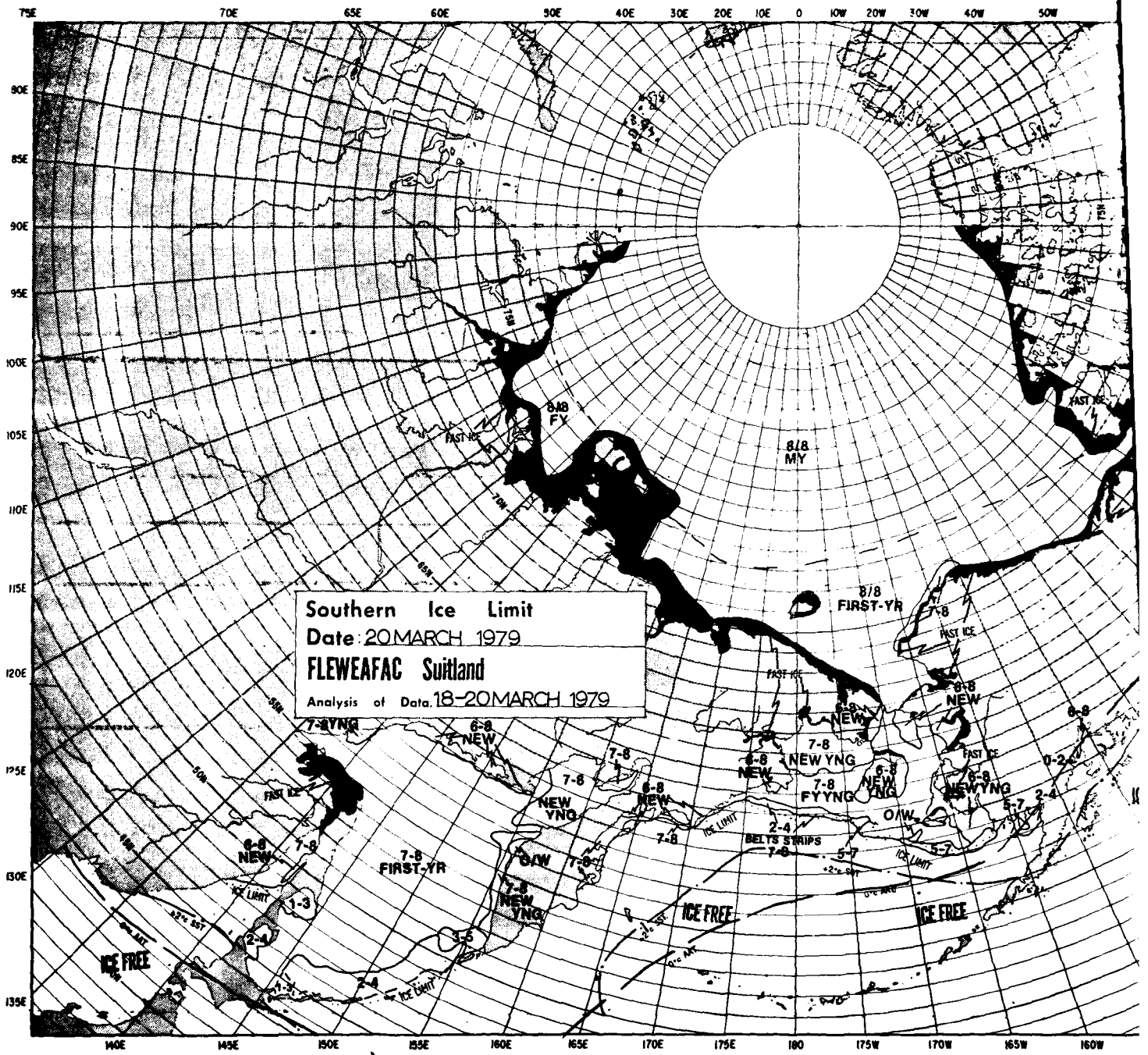

Southern Ice Limit
Date: 06 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 04-06 MARCH 1979
8/8 MY
8/8 FY
8/8 FIRST-YR
6-8 NEW/YNG
7-8 YNG/NEW
7-8 FIRST-YR
7-8 FY/YNG
6-8 NEW
3-5 PTCHS
ICE FREE
FAST ICE
ICE LIMIT

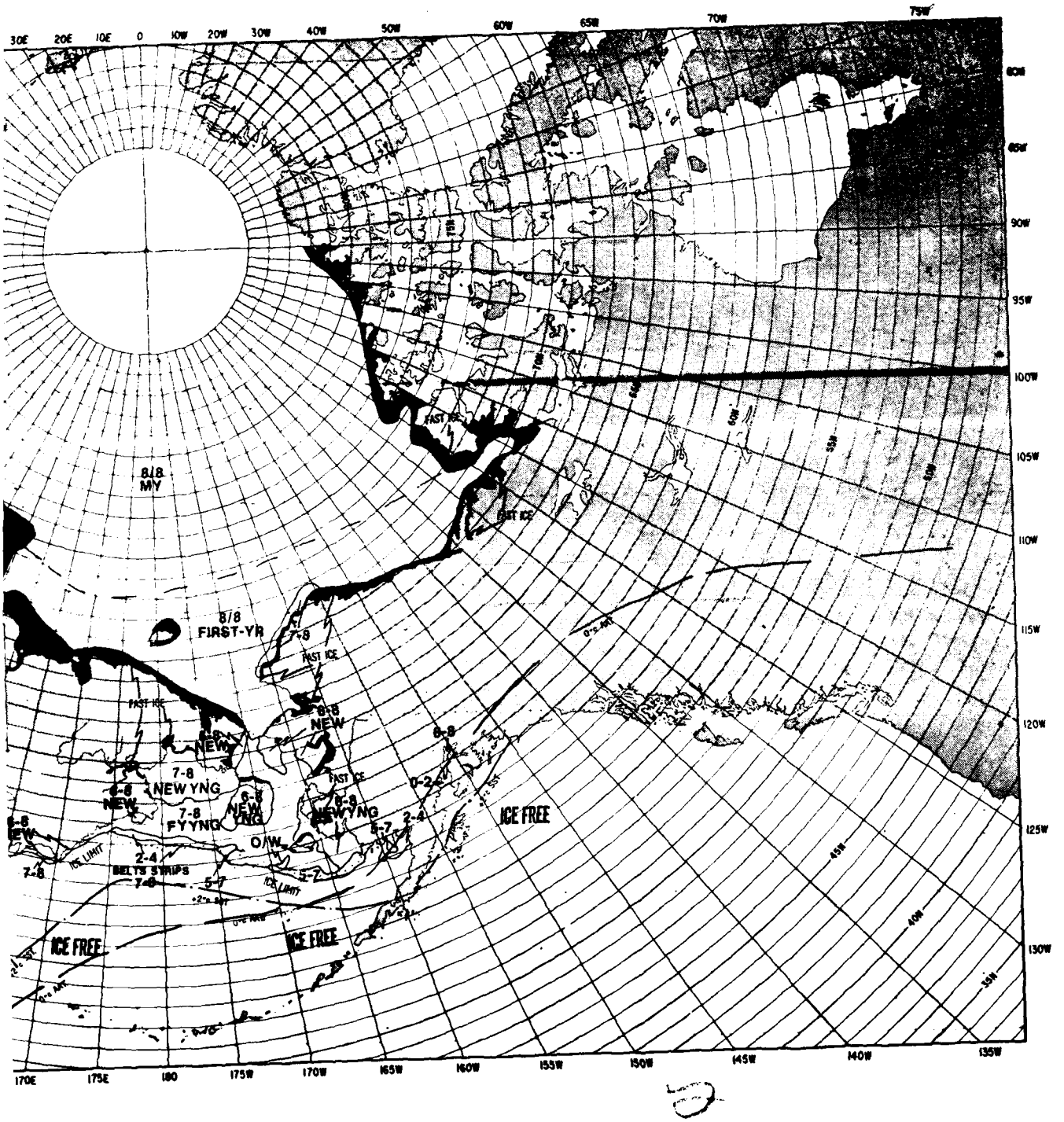


20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FIRST-YR
FAST ICE
FAST ICE
6-8
NEW
8/8
FY/YNG
7-8
YNG/NEW
4-6
6-8
7-8
FY/YNG
FAST ICE
6-8
NEW
3-5
PTCHS
6-8
5-7
7-8
FY/YNG
ICE LIMIT
ICE FREE
ICE FREE
2°c SST
0°c AAT
2°c SST
0°c AAT
80N
75N
70N
65N
60N
55N
50N
45N
40N
35N

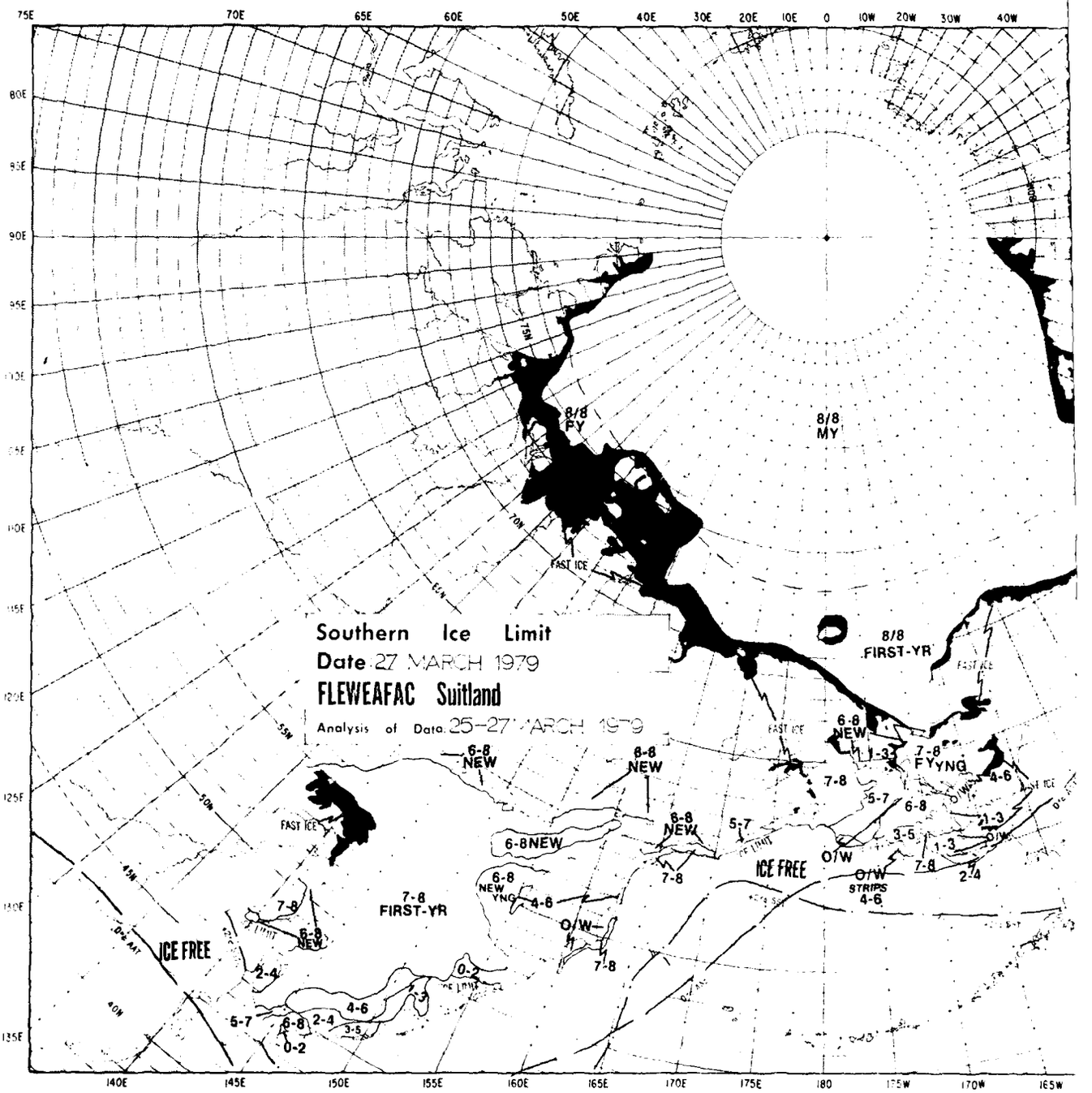

Southern Ice Limit
Date: 13 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data: 11-13 MAR 79
8/8 FY
8/8 MY
8/8 FIRST-YR
6-8 NEW/YNG
6-8 NEW YNG
7-8 NEW YNG
7-8 FY YNG
5-7 YNG
7-8 FIRST-YR
6-8 NEW
O/W 0-2
BELTS STRIPS 6-8
ICE FREE
FAST ICE
ICE LIMIT

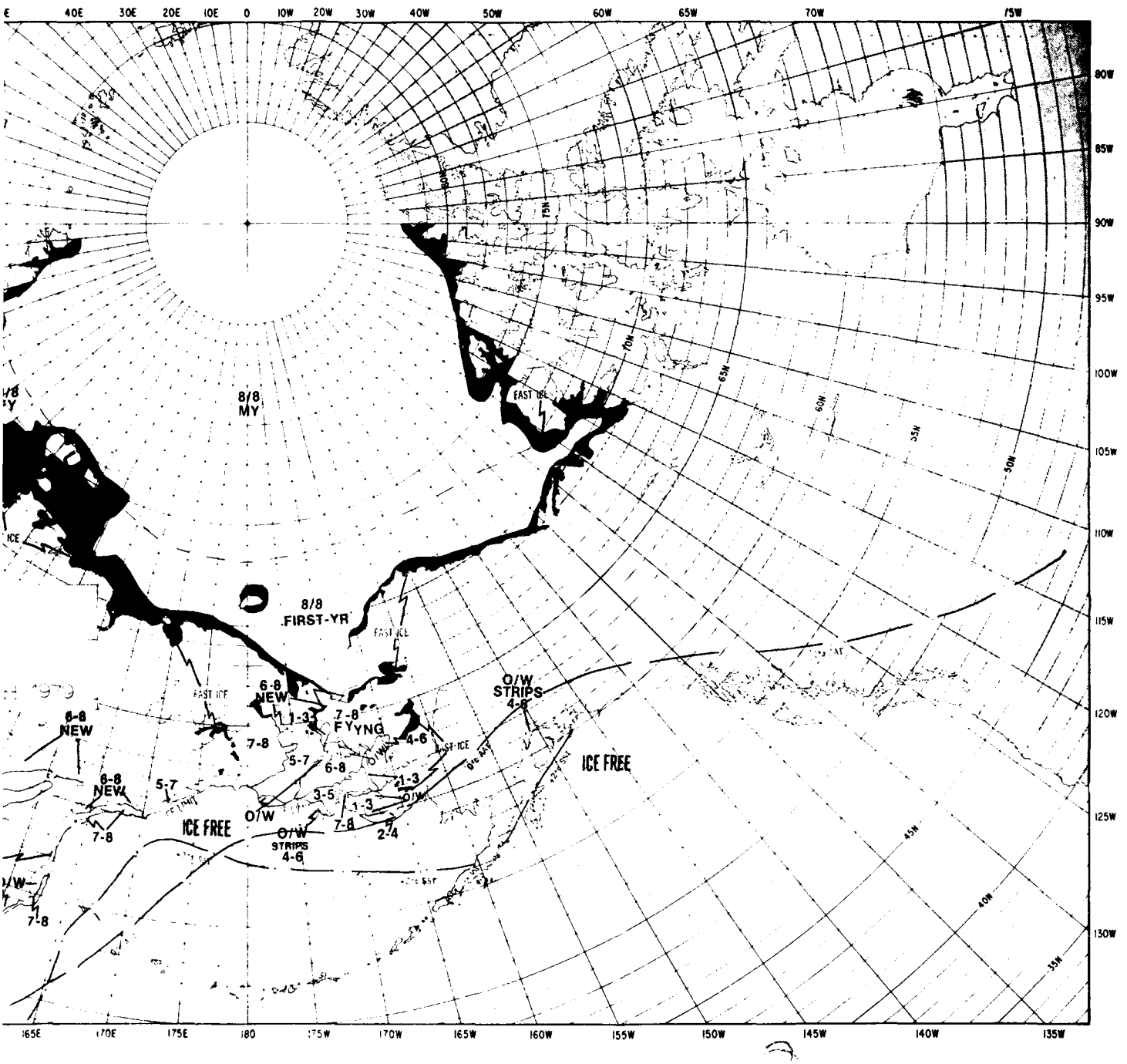

50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
160E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
8/8
FY
8/8
MY
8/8
FIRST-YR
FAST ICE
FAST ICE
FAST ICE
Limit
79
MAR 79
/YNG
6-8
NEW YNG
6-8
NEW YNG
7-8
NEW YNG
6-8
NEW
7-8
FY YNG
4-6
1-3
O/W 0-2
BELTS
STRIPS
6-8
2-4
ICE LIMIT
ICE LIMIT
O/W
PTCHS
6-8
O/W
4-6
6-8
3-5 1-3
4-6
2-4
7-8
2-4
ICE FREE
ICE FREE

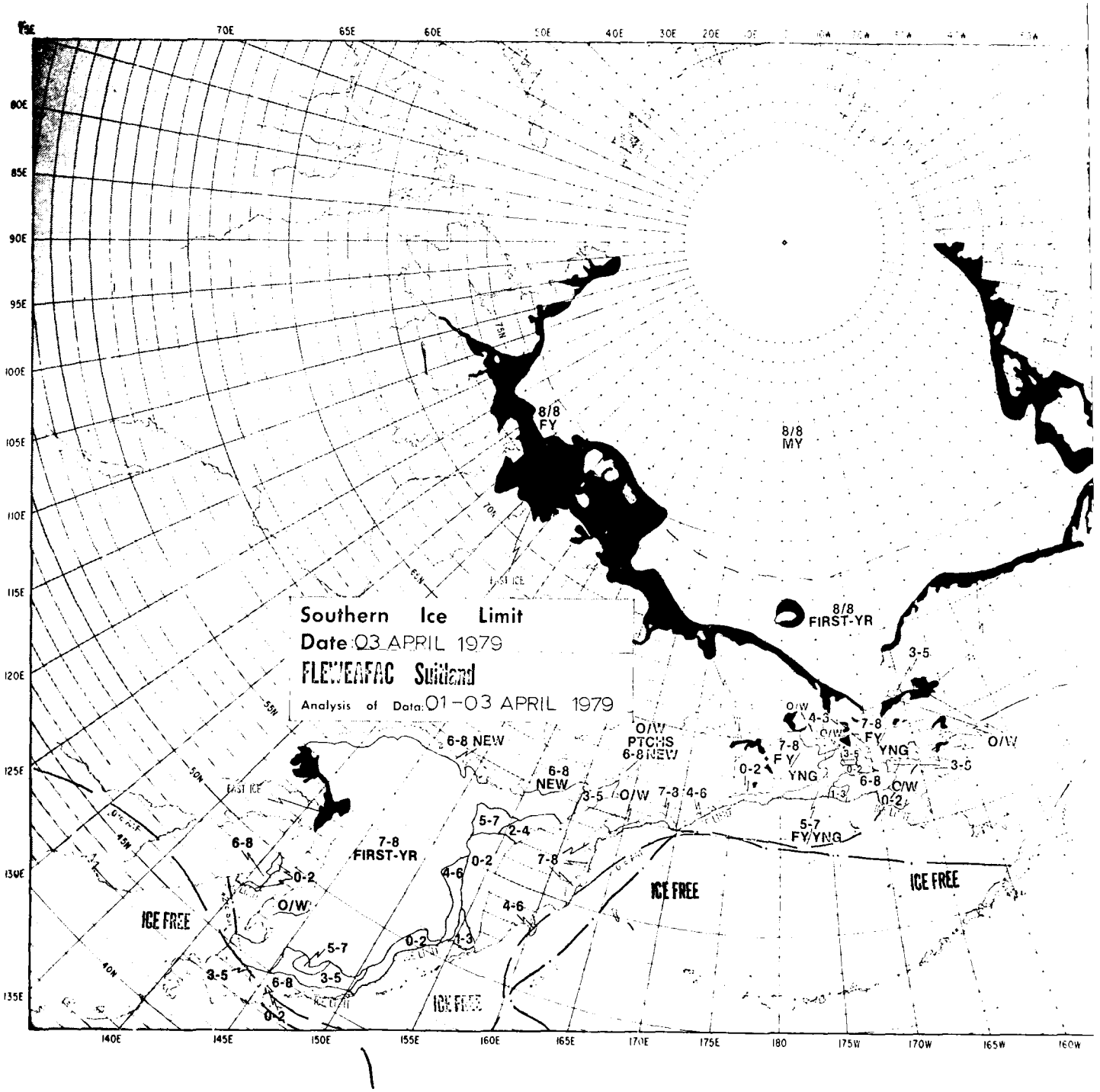

Southern Ice Limit
Date: 20 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data. 18-20 MARCH 1979
8/8 FY
8/8 MY
8/8 FIRST-YR
FAST ICE
ICE FREE
ICE LIMIT
O/W
BELTS STRIPS
7-8 NEW YNG
6-8 NEW
7-8 FIRST-YR
7-8 FYYNG
2-4
1-3
5-7
0-2

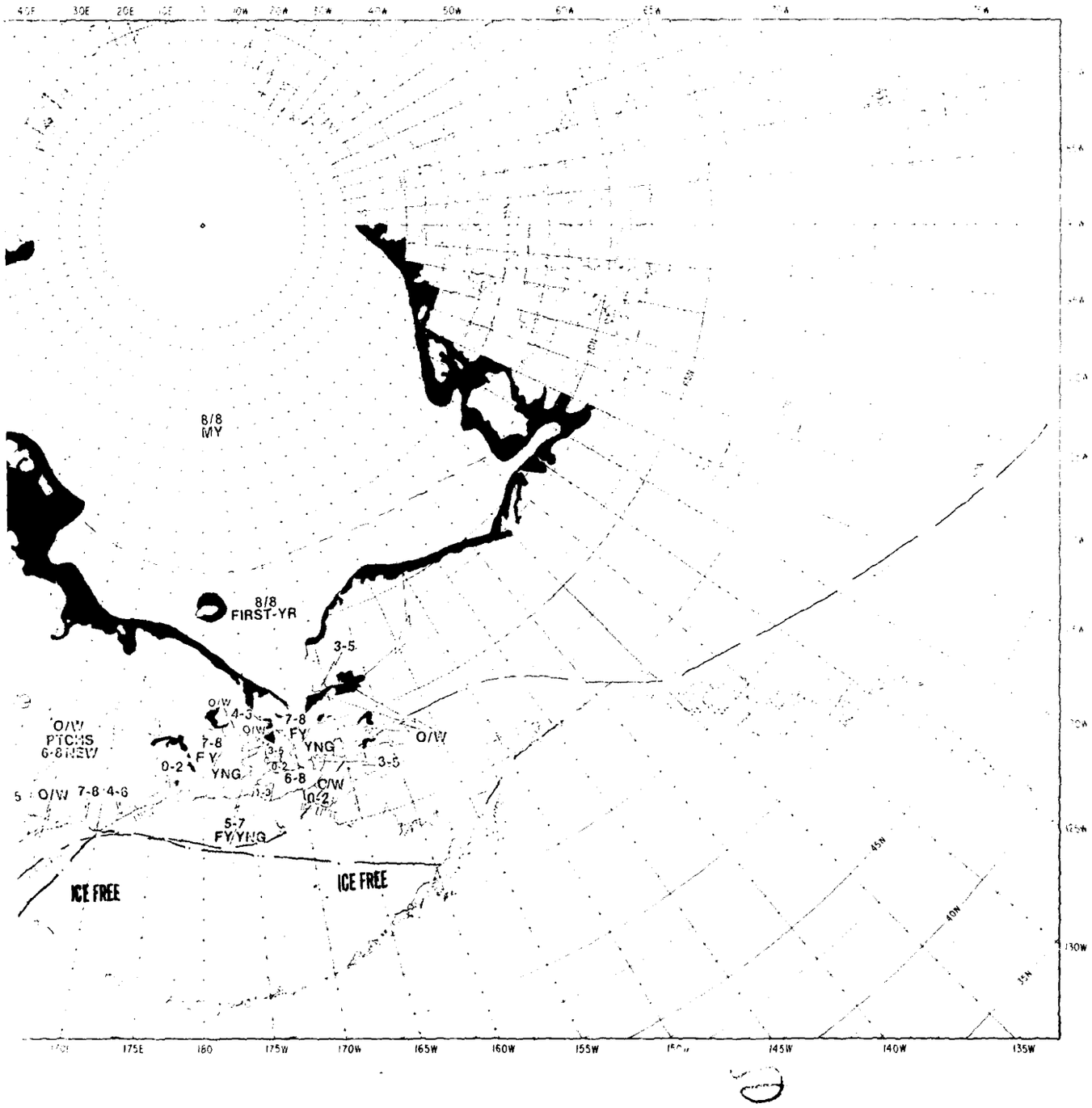


30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FIRST-YR
7-8
FAST ICE
8-8
NEW
6-8
NEW
7-8
NEW YNG
6-8
NEW
7-8
FYYNG
6-8
NEW YNG
6-8
NEW YNG
O/W
2-4
BELTS STRIPS
7-8
5-7
ICE LIMIT
ICE FREE
ICE FREE
ICE FREE
0-2
2-4
5-7
6-8

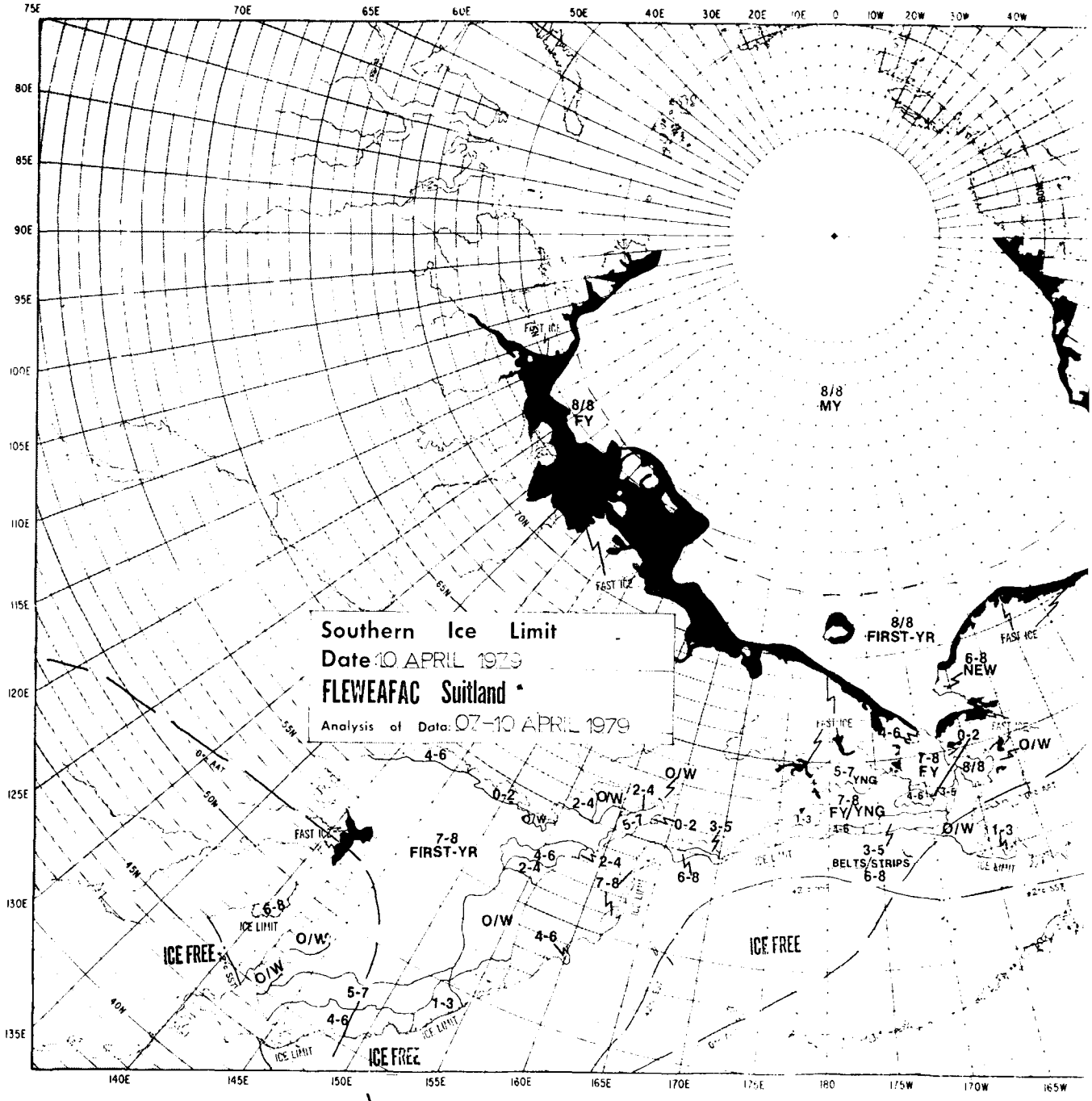

Southern Ice Limit
Date 27 MARCH 1979
FLEWEAFAC Suitland
Analysis of Data 25-27 MARCH 1979
8/8 FY
8/8 MY
8/8 FIRST-YR
FAST ICE
6-8 NEW
7-8 FYYNG
7-8 FIRST-YR
ICE FREE
O/W
O/W STRIPS 4-6
6-8 NEW YNG
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W

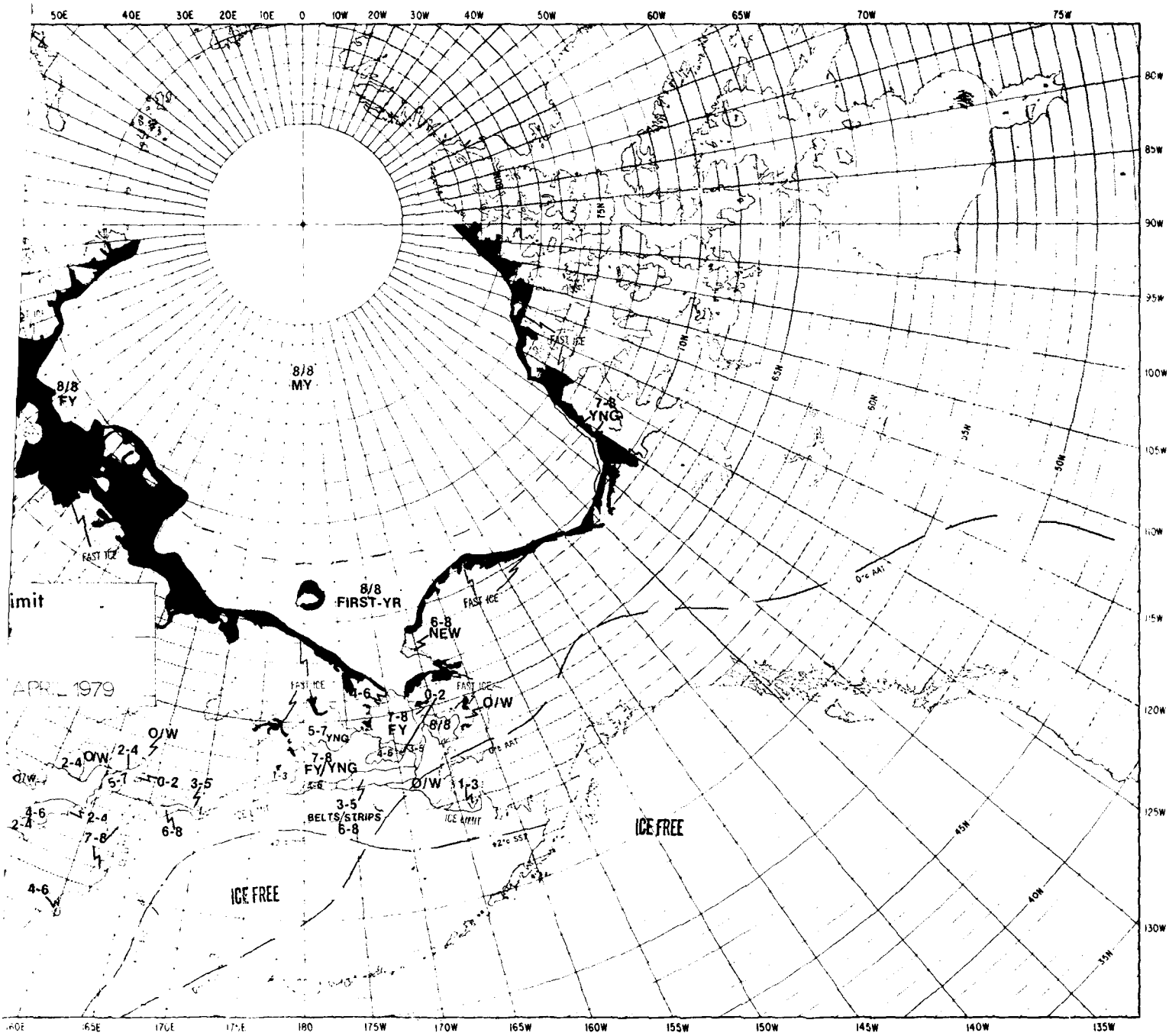

40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
70N
65N
60N
55N
50N
45N
40N
35N
8/8
MY
8/8
FIRST-YR
EAST ICE
6-8
NEW
1-3
7-8
FYYNG
4-6
O/W
STRIPS
4-6
ICE FREE
5-7
6-8
3-5
2-4
O/W


Southern Ice Limit
Date 03 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data: 01-03 APRIL 1979
8/8 FY
8/8 MY
8/8 FIRST-YR
6-8 NEW
O/W PTCHS 6-8 NEW
7-8 FY YNG
5-7 FY/YNG
7-8 FIRST-YR
ICE FREE
O/W
EAST ICE



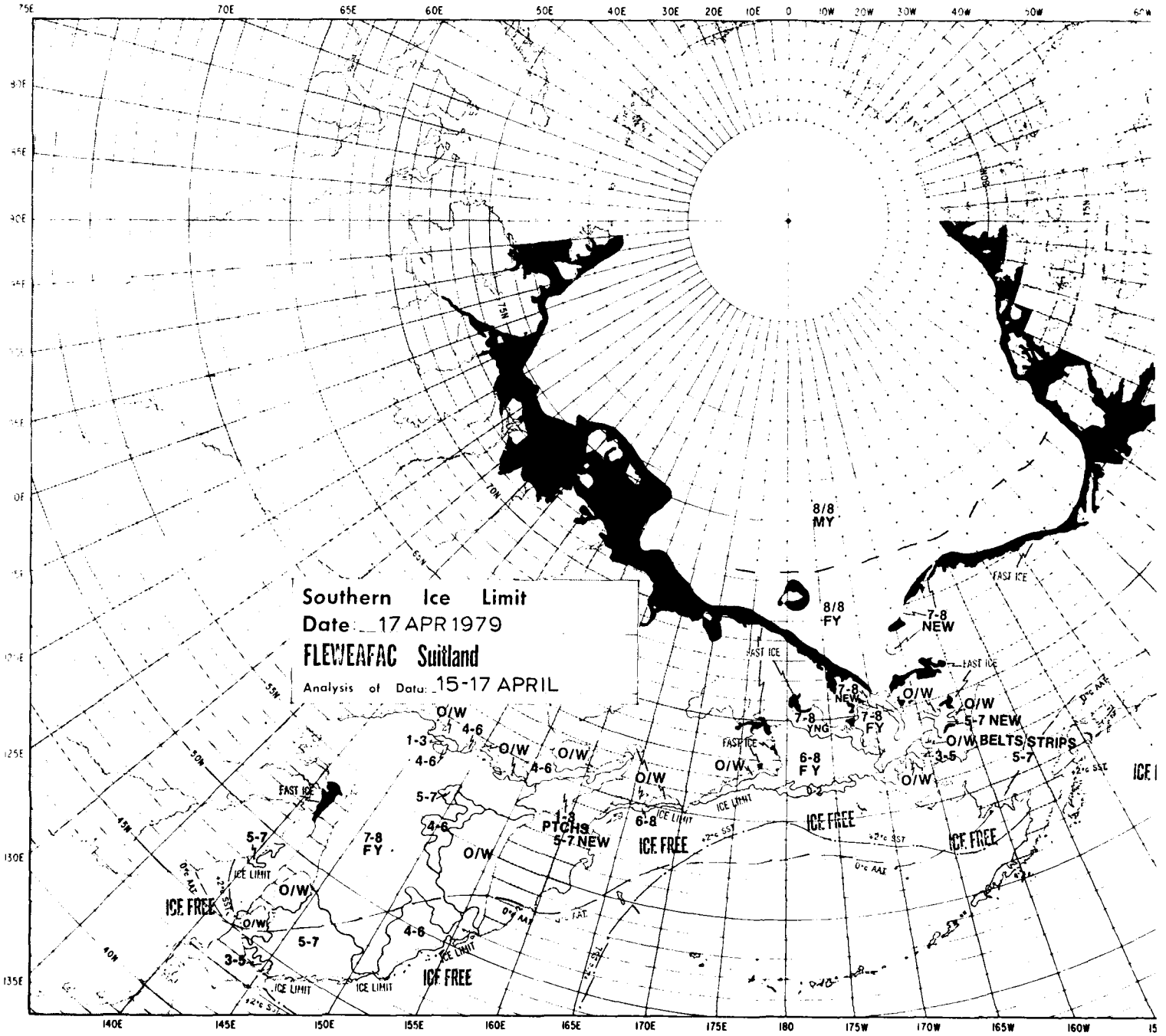
8/8
MY
8/8
FIRST-YR
3-5
O/W
4-5
7-8
FY
YNG
O/W
PTCHS
6-8 NEW
7-8
FY
0-2
YNG
3-5
6-8
C/W
0-2
O/W
7-8
4-6
5-7
FY/YNG
ICE FREE
ICE FREE
175E
180
175W
170W
165W
160W
155W
145W
140W
135W
130W

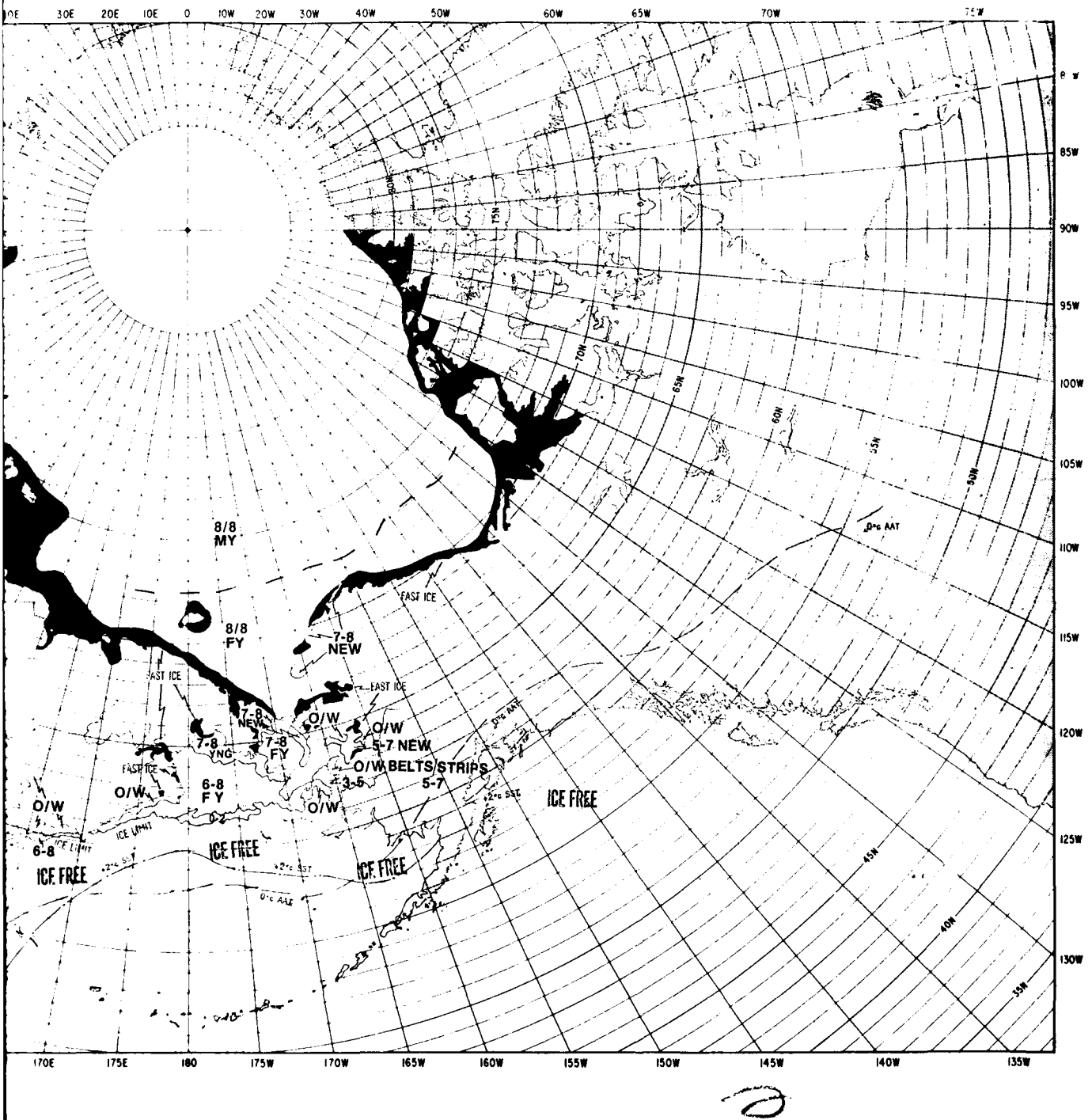

Southern Ice Limit
Date 10 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data: 07-10 APRIL 1979
8/8 MY
8/8 FY
8/8 FIRST-YR
6-8 NEW
7-8 FIRST-YR
3-5 BELTS/STRIPS 6-8
7-8 FY/YNG
5-7 YNG
ICE FREE
FAST ICE
ICE LIMIT
O/W
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175W
170W
165W

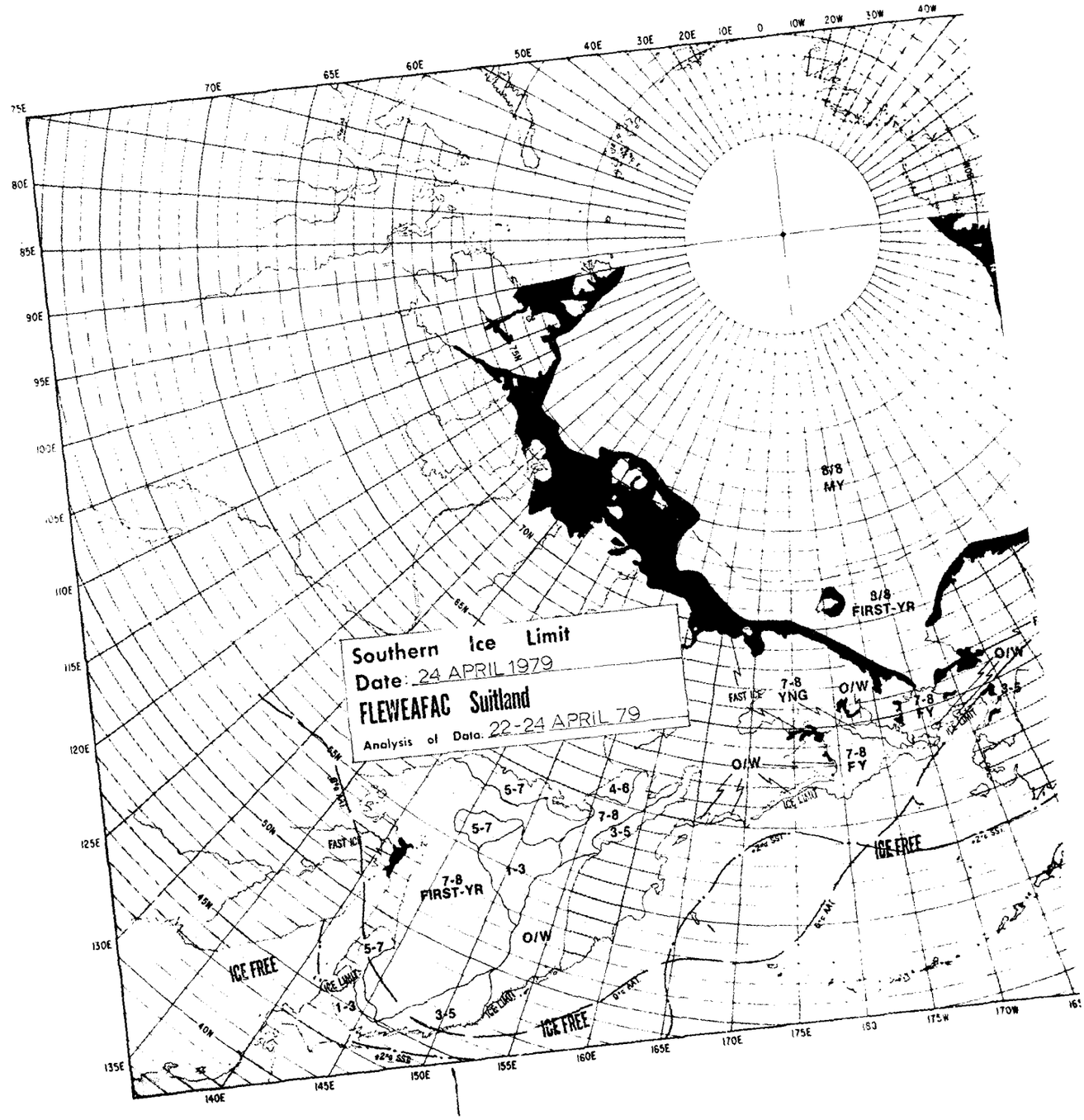


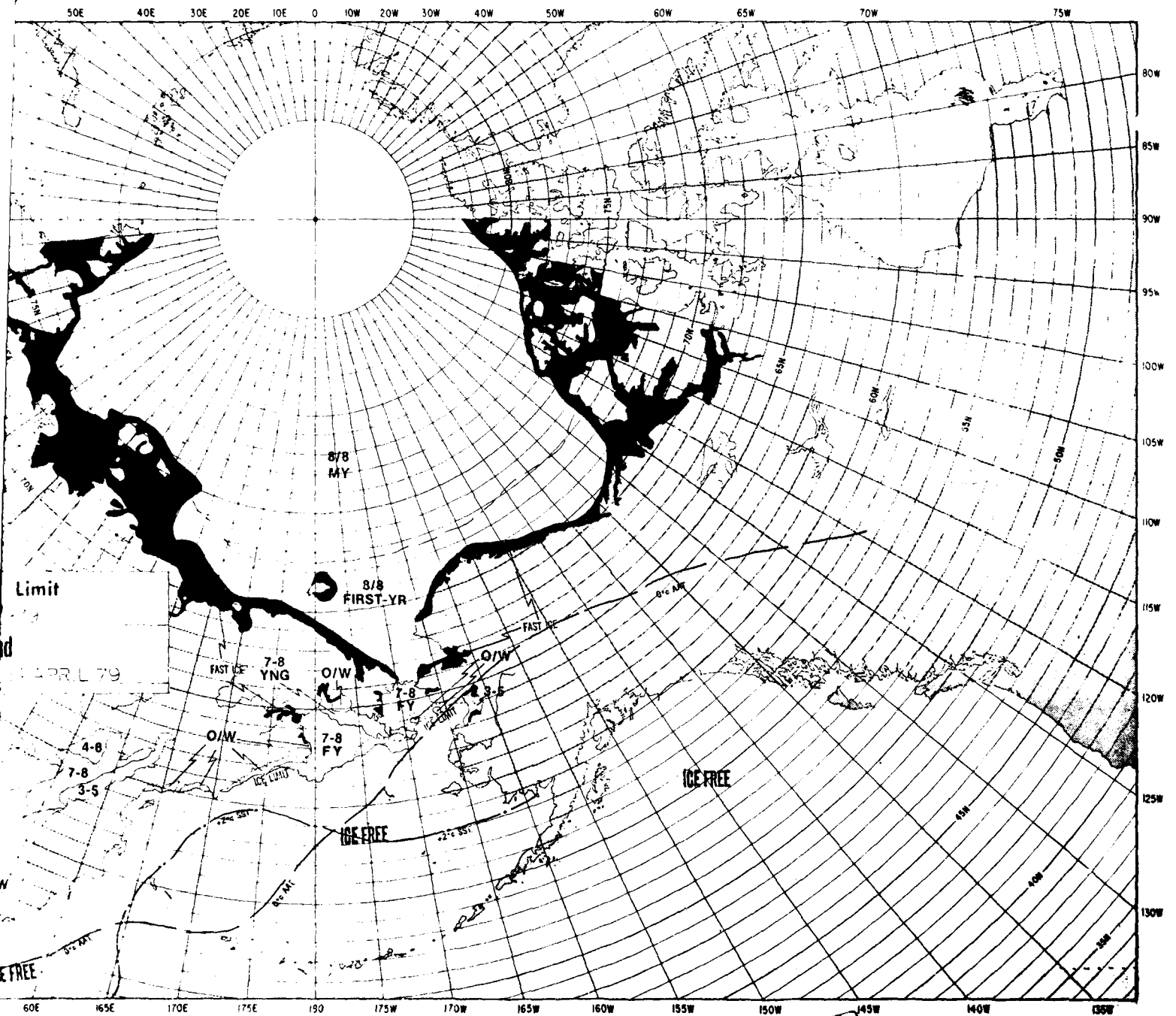
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FY
7-8
YNG
FAST ICE
8/8
FIRST-YR
6-8
NEW
imit
APRIL 1979
O/W
2-4
5-7
0-2
3-5
4-6
7-8
6-8
5-7 YNG
7-8
FY/YNG
3-5
BELTS/STRIPS
6-8
1-3
ICE LIMIT
ICE FREE
ICE FREE

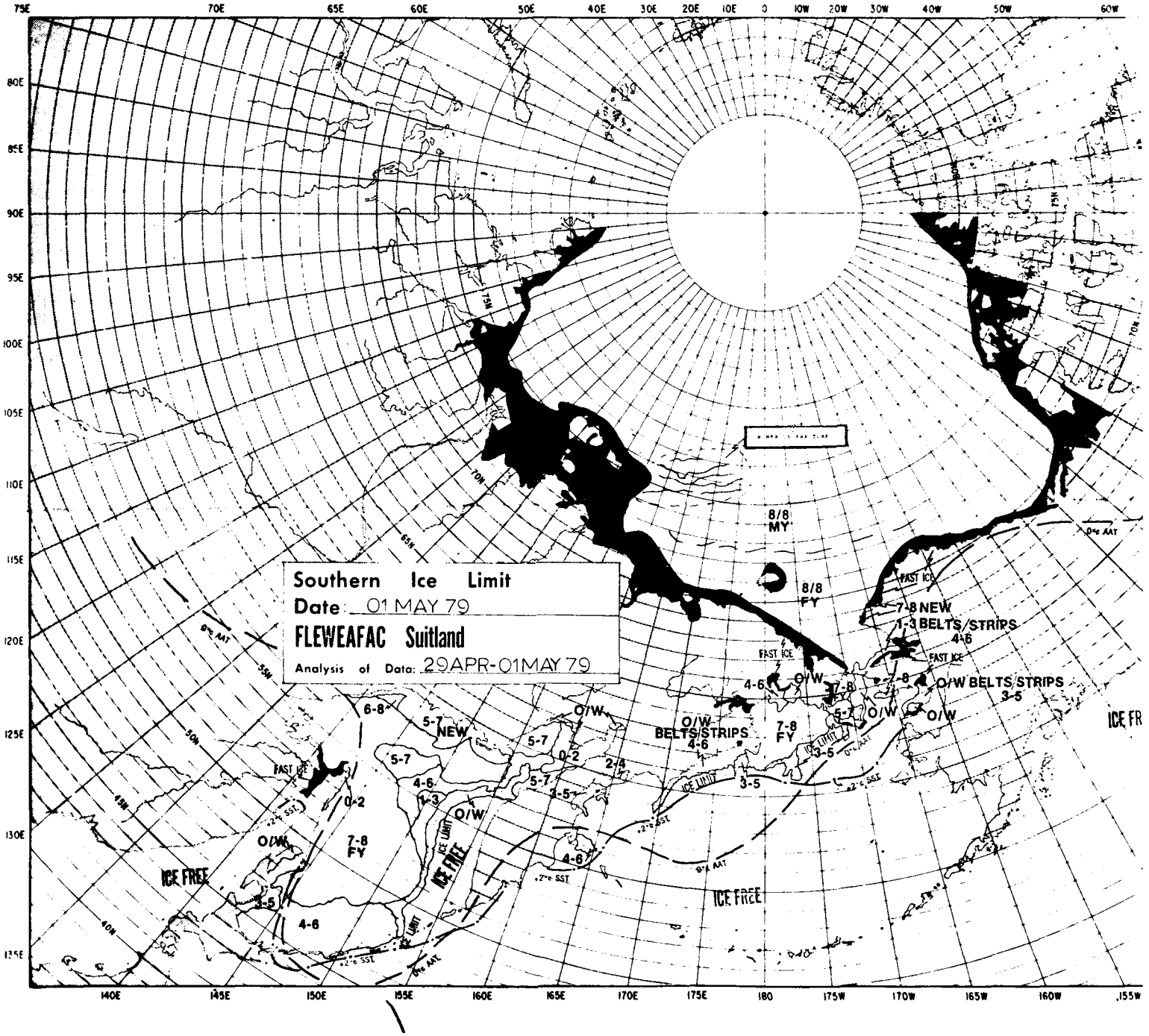
2

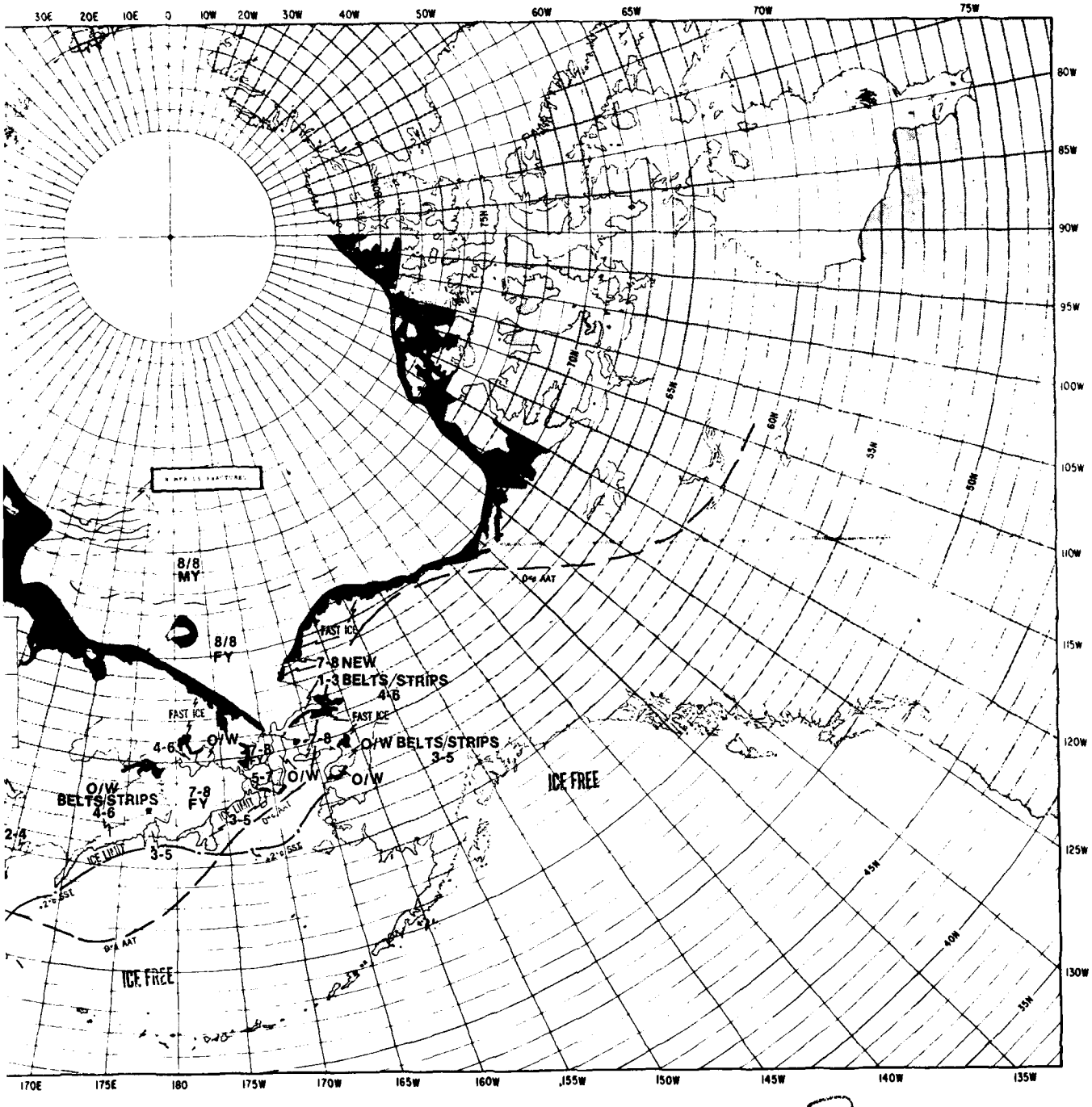

Southern Ice Limit
Date: 17 APR 1979
FLEWEAFAC Suitland
Analysis of Data: 15-17 APRIL
8/8 MY
8/8 FY
7-8 NEW
7-8 YNG
7-8 FY
6-8 FY
FAST ICE
O/W
1-3
4-6
5-7
7-8 FY
1-3 PTCHS 5-7 NEW
6-8
ICE FREE
ICE LIMIT
5-7 NEW
O/W BELTS/STRIPS
3-5
5-7
0°c AAT
+2°c SST

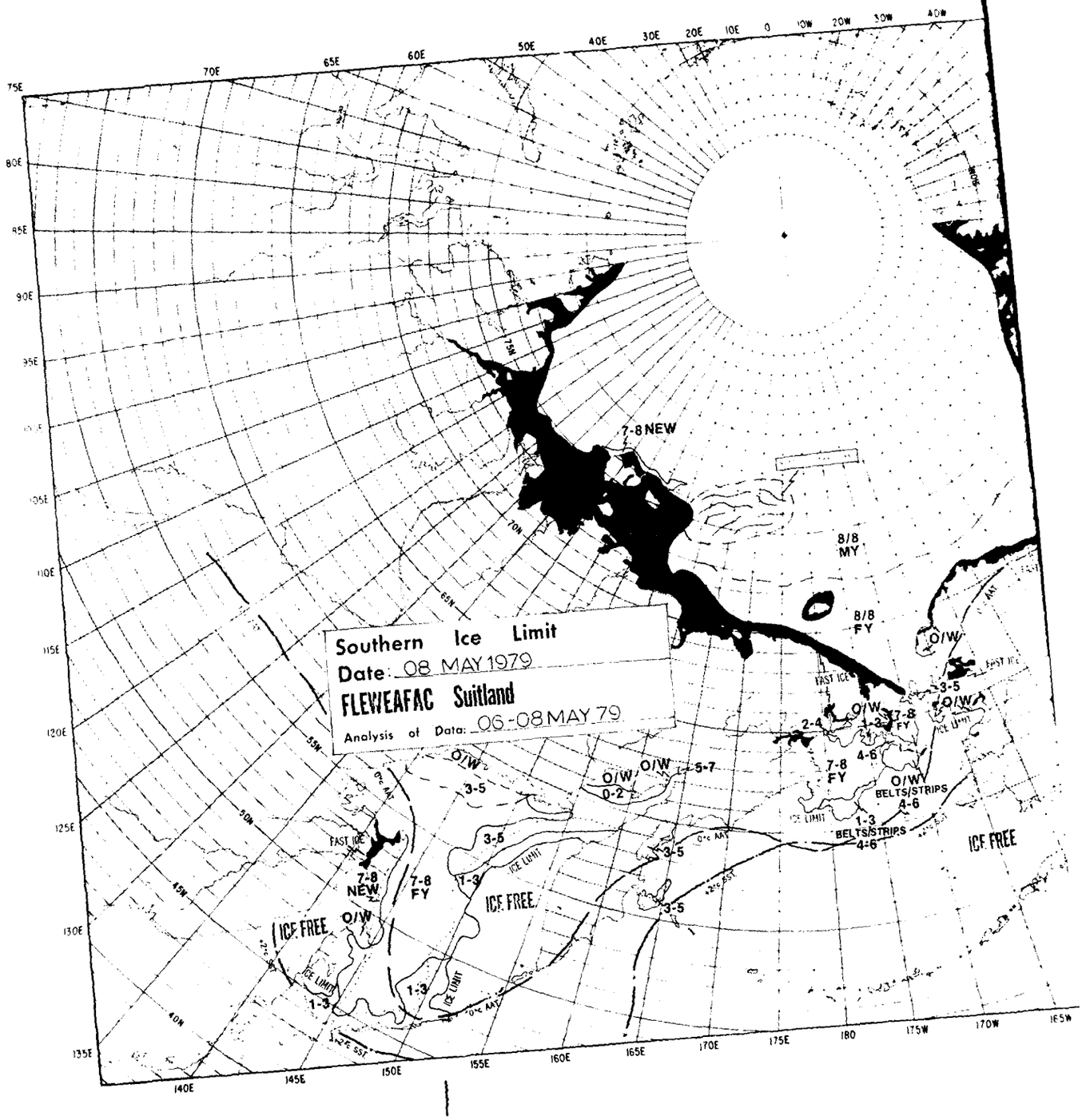

8/8
MY
8/8
FY
7-8
NEW
FAST ICE
7-8
YNG
7-8
FY
O/W
5-7 NEW
O/W BELTS/STRIPS
3-5
5-7
6-8
F Y
ICE FREE
6-8
ICE LIMIT
0°c AAT
2°c SST

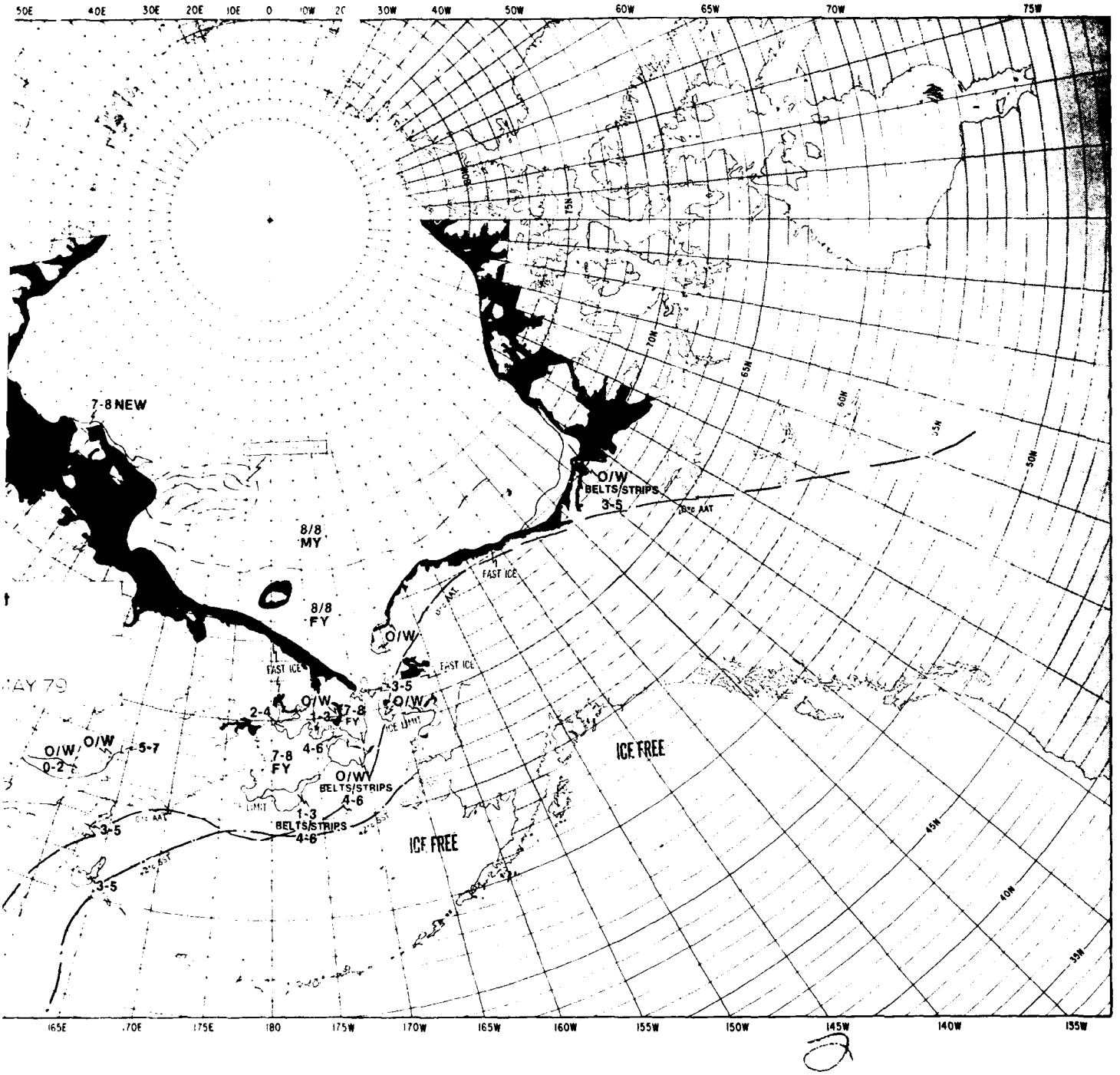

Southern Ice Limit
Date: 24 APRIL 1979
FLEWEAFAC Suitland
Analysis of Data. 22-24 APRIL 79
8/8 MY
8/8 FIRST-YR
7-8 YNG
7-8 FY
O/W
3-5
5-7
4-6
7-8
1-3
FAST ICE
ICE FREE
ICE LIMIT


50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
60E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
8/8
MY
8/8
FIRST-YR
FAST ICE
7-8
YNG
O/W
7-8
FY
3-5
ICE LIMIT
FAST ICE
O/W
7-8
FY
4-8
7-8
3-5
ICE LIMIT
ICE FREE
ICE FREE
Limit

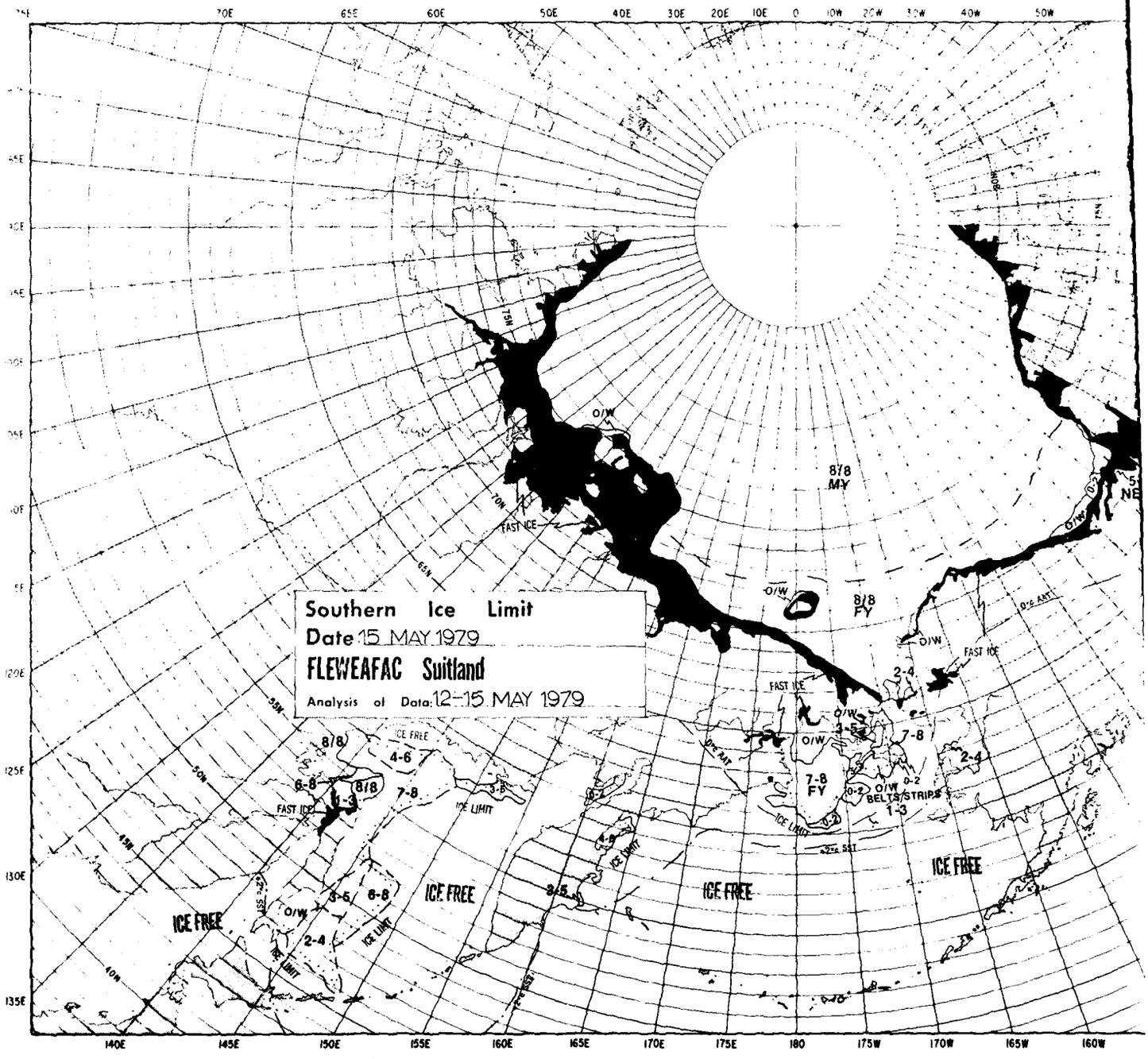

Southern Ice Limit
Date: 01 MAY 79
FLEWEAFAC Suitland
Analysis of Data: 29APR-01MAY 79
8/8 MY
8/8 FY
7-8 NEW
1-3 BELTS/STRIPS 4-6
O/W BELTS/STRIPS 3-5
O/W BELTS/STRIPS 4-6
7-8 FY
5-7 NEW
6-8
5-7
4-6
1-3
0-2
2-4
3-5
O/W
FAST ICE
ICE LIMIT
ICE FREE
ICE FR
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
155W

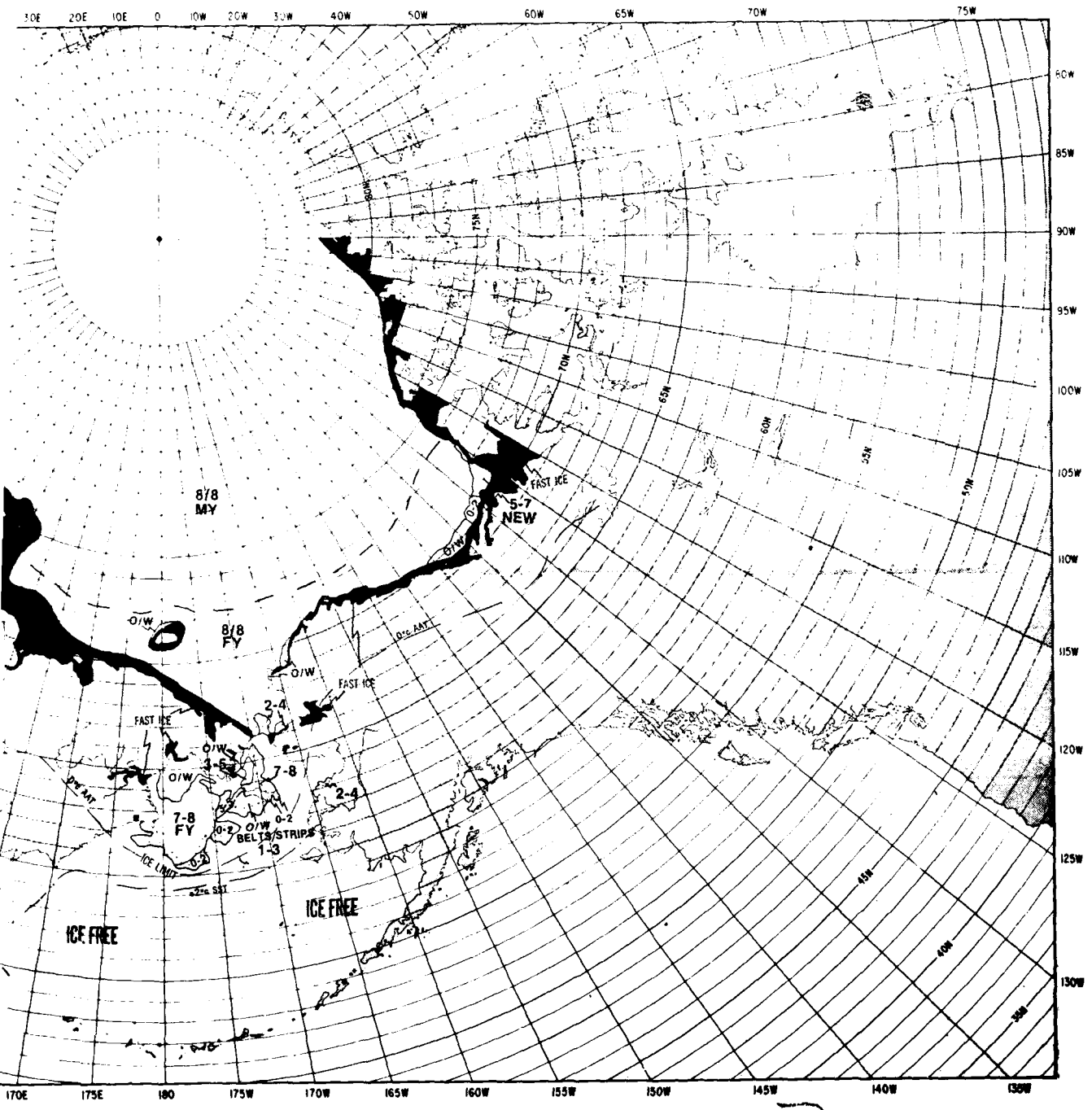

30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FY
FAST ICE
7-8 NEW
1-3 BELTS/STRIPS
4-6
FAST ICE
FAST ICE
4-6
O/W
7-8
7-8
O/W BELTS/STRIPS
3-5
5-7
O/W
O/W
O/W
BELTS/STRIPS
4-6
7-8
FY
3-5
ICE LIMIT
3-5
ICE LIMIT
2-4
ICE FREE
ICE FREE


Southern Ice Limit
Date: 08 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 06-08 MAY 79
7-8 NEW
8/8 MY
8/8 FY
O/W
3-5
FAST ICE
2-4
1-3
7-8 FY
4-6
O/W BELTS/STRIPS 4-6
1-3 BELTS/STRIPS 4-6
ICE LIMIT
5-7
O/W 0-2
O/W
3-5
FAST ICE
7-8 NEW
7-8 FY
1-3
ICE FREE
O/W
ICE LIMIT
1-3
1-3
ICE LIMIT
3-5
3-5
ICE FREE
ICE FREE
75N
70N
65N
55N
50N
45N
40N
75E
80E
85E
90E
95E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W

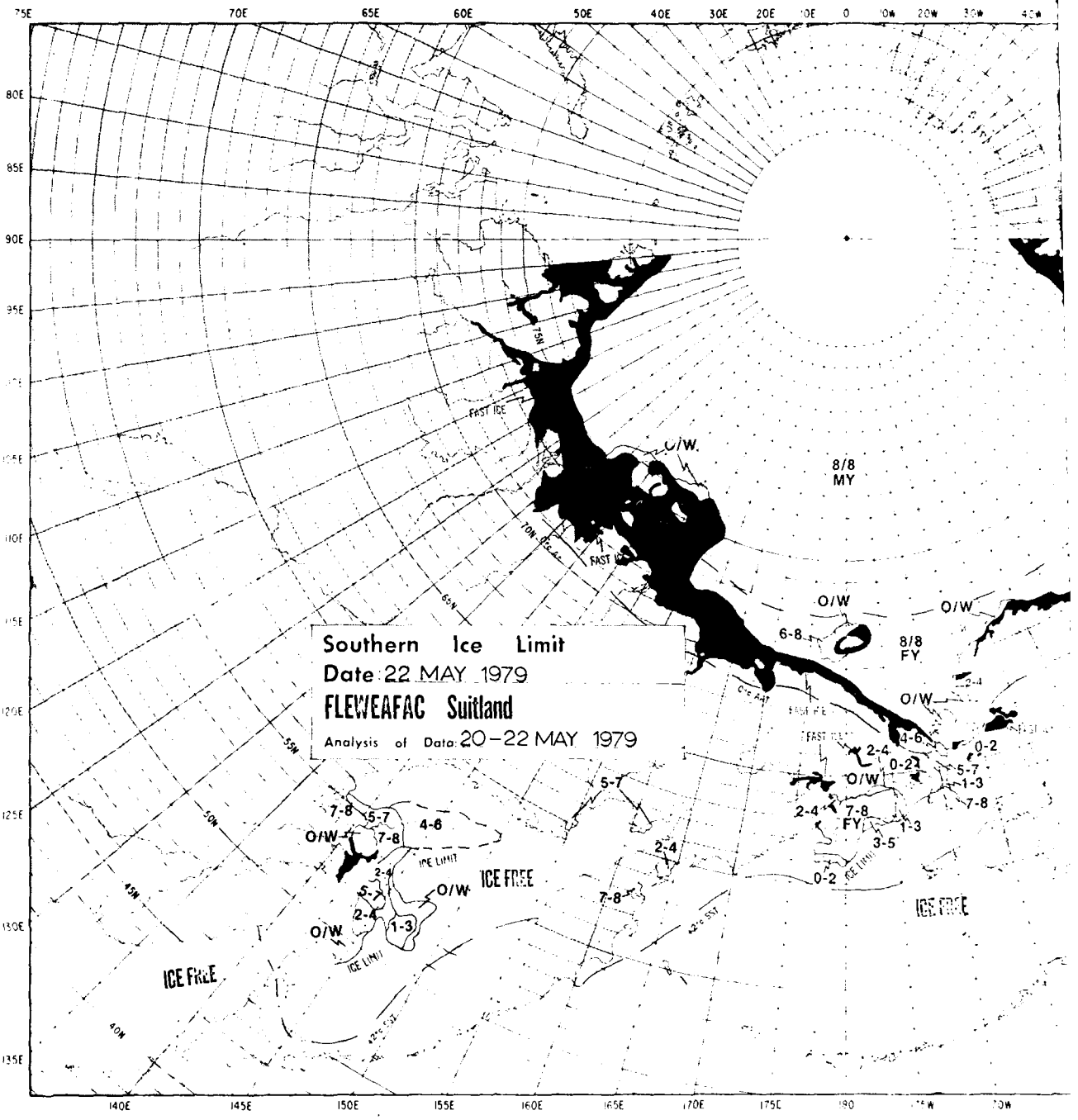


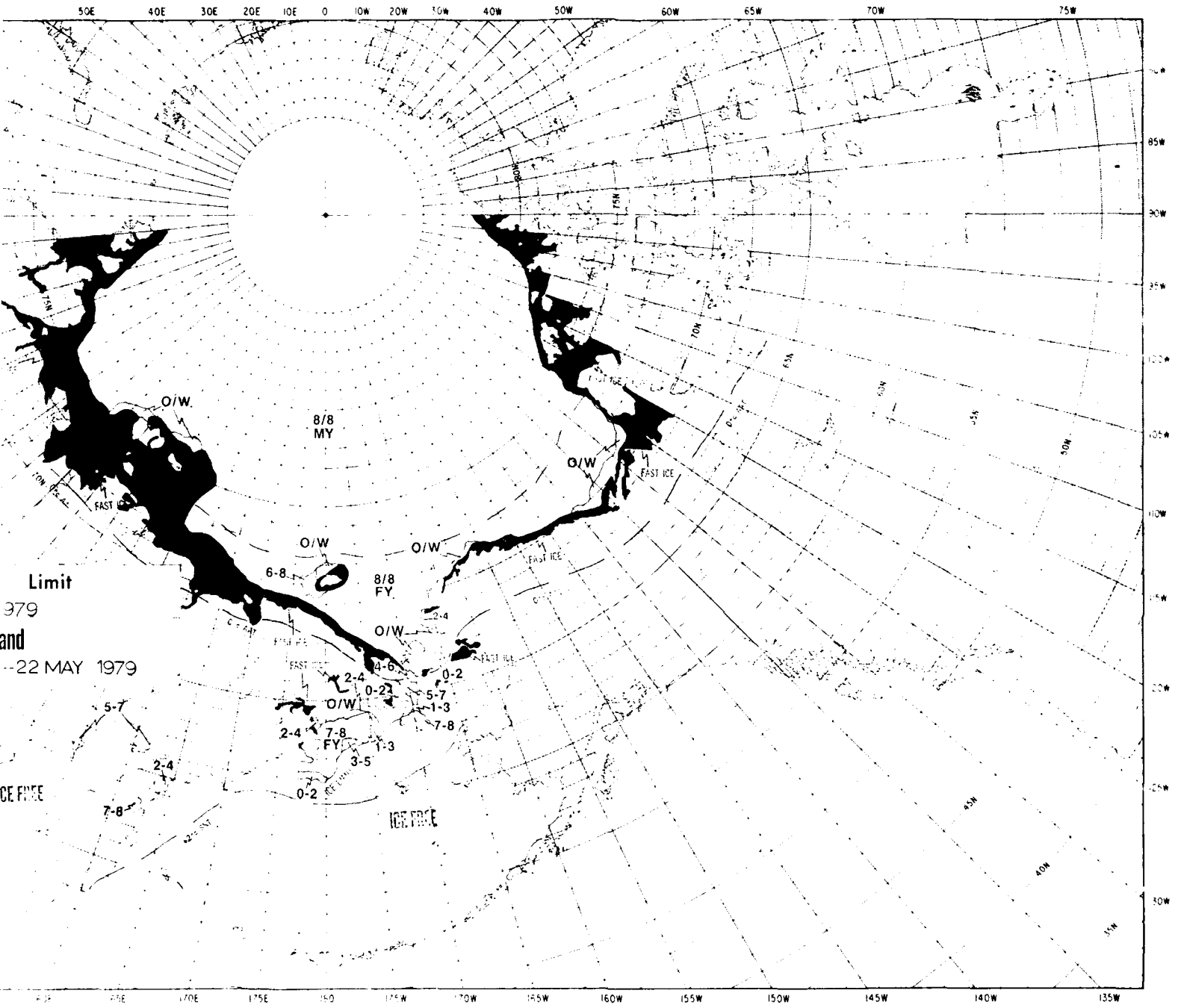
50E
40E
30E
20E
10E
0
30W
40W
50W
60W
65W
70W
75W
7-8 NEW
8/8
MY
8/8
FY
O/W
BELTS/STRIPS
3-5
FAST ICE
O/W
FAST ICE
3-5
O/W
2-4
O/W
1-3
7-8
FY
ICE LIMIT
4-6
7-8
FY
O/W
BELTS/STRIPS
4-6
1-3
BELTS/STRIPS
4-6
O/W
O/W
0-2
5-7
3-5
3-5
ICE FREE
ICE FREE
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W

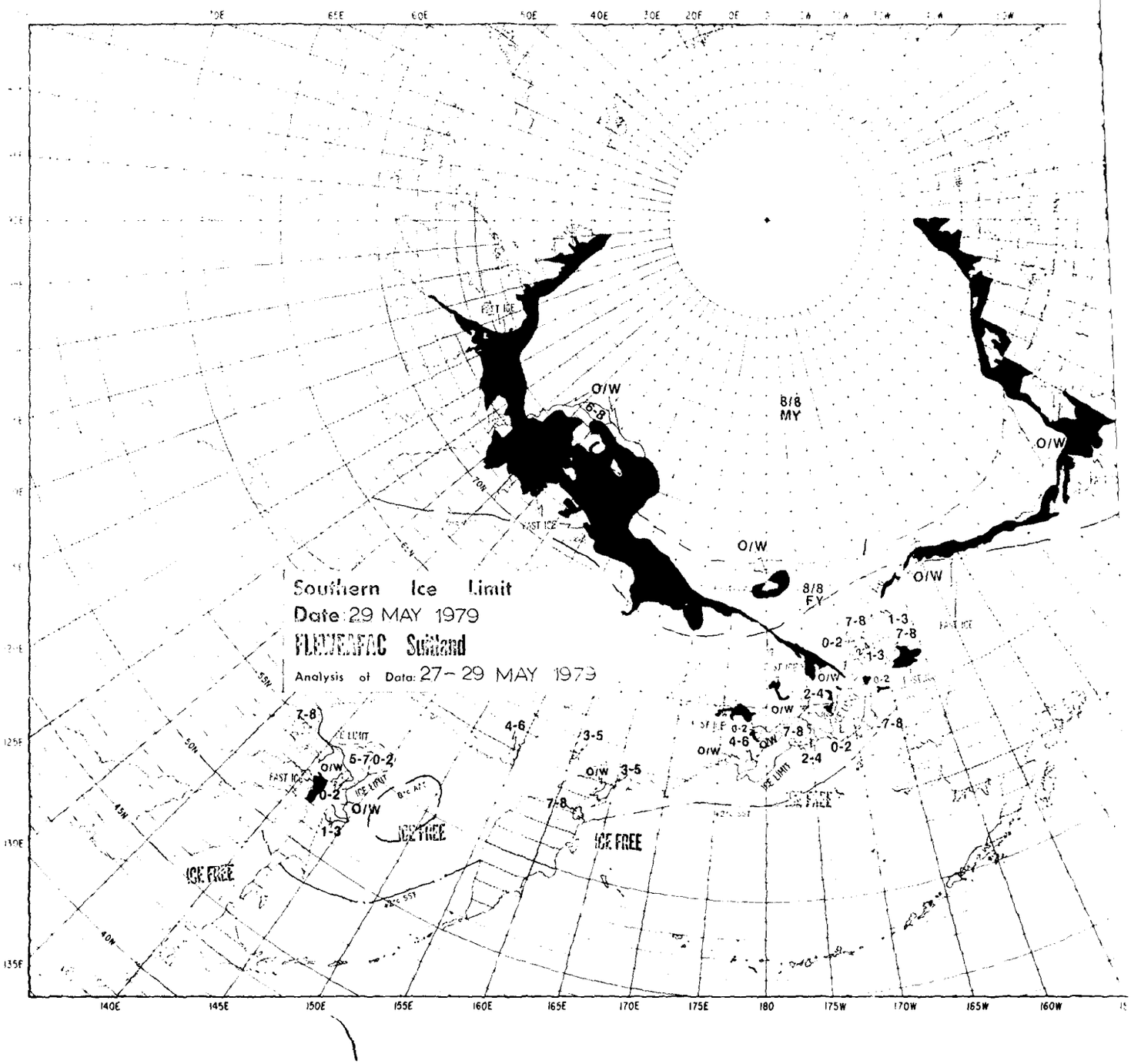

Southern Ice Limit
Date 15 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 12-15 MAY 1979
ICE FREE
FAST ICE
O/W
8/8 MY
8/8 FY
7-8 FY
4-6
6-8
8/8
7-8
1-3
3-5
2-4
4-5
0-2
O/W BELTS/STRIPS
ICE LIMIT
-2°c SST
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
135E
130E
125E
120E
55N
50N
45N
40N
75N
70N
65N

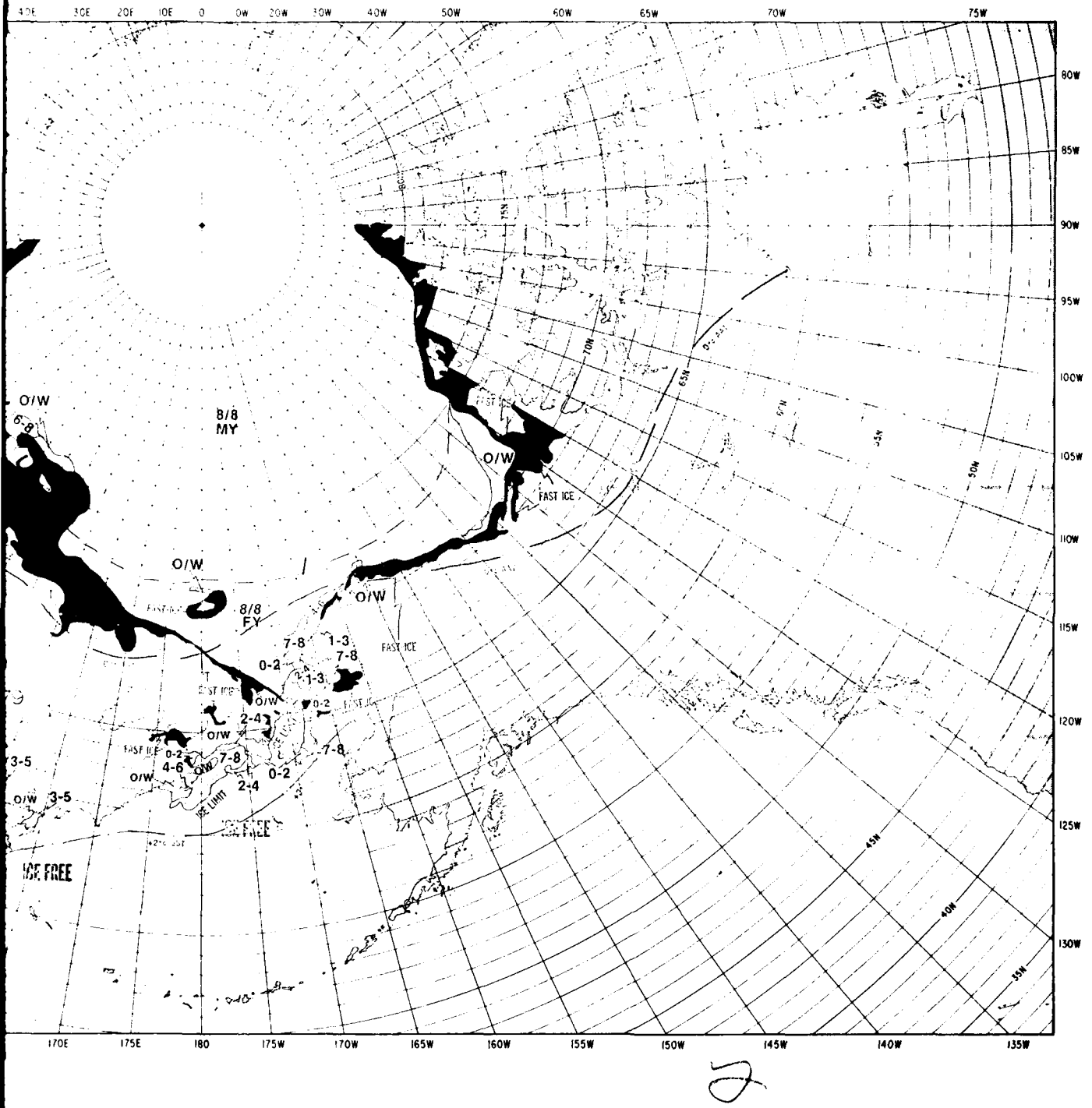


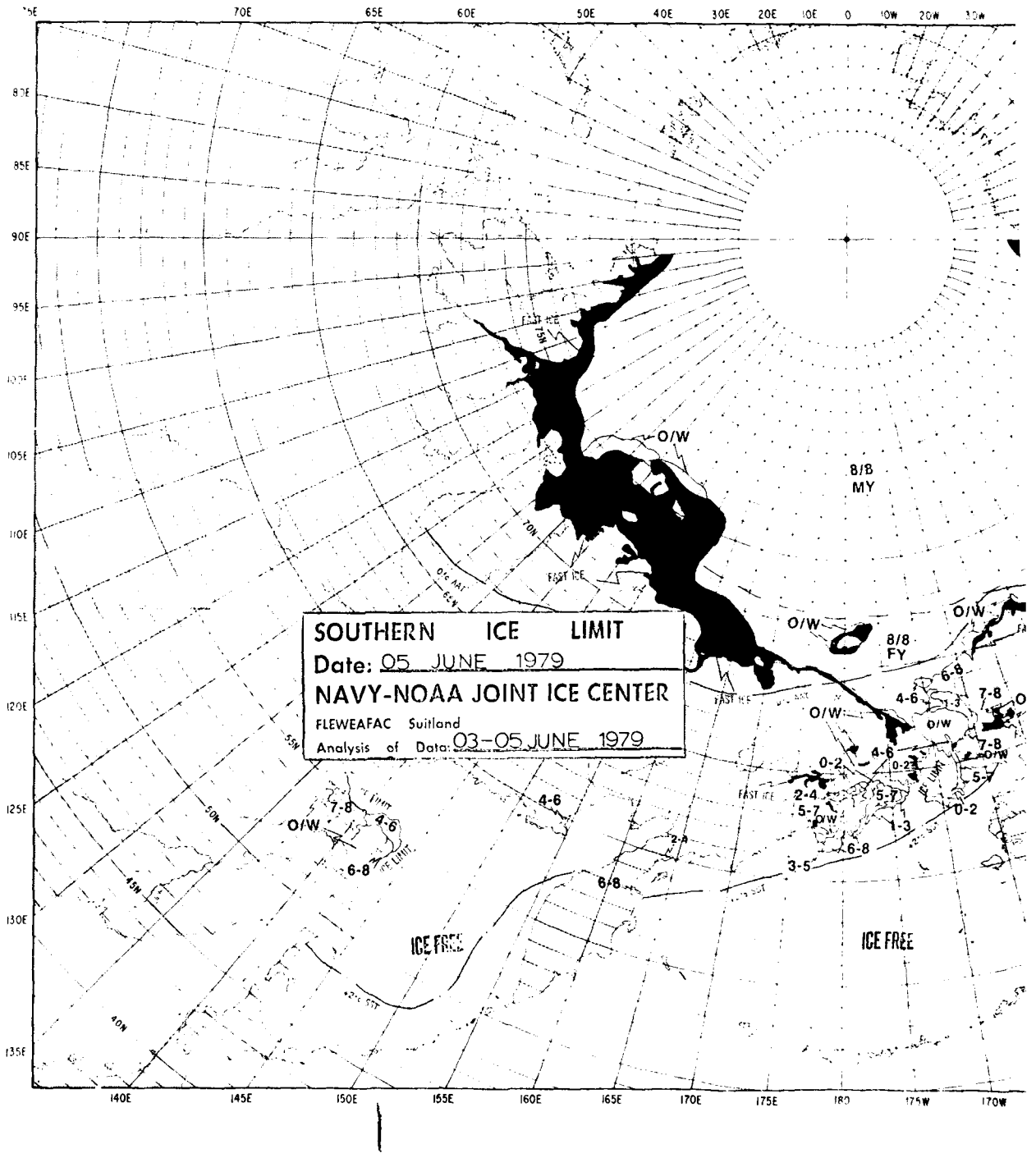
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FY
5-7
NEW
FAST ICE
O/W
0-2
2-4
3-5
7-8
7-8
FY
BELTS/STRIPS
1-3
ICE LIMIT
ICE FREE
ICE FREE


Southern Ice Limit
Date 22 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 20–22 MAY 1979
ICE FREE
ICE FREE
ICE FREE
ICE LIMIT
ICE LIMIT
FAST ICE
O/W
8/8 MY
8/8 FY
6-8
7-8
5-7
4-6
2-4
1-3
0-2
3-5
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
80E
85E
90E
95E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
70W
75N
70N
65N
55N
50N
45N
40N


50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
145W
150W
155W
160W
165W
170W
175E
170E
Limit
979
and
--22 MAY 1979
O/W
8/8
MY
8/8
FY
FAST ICE
6-8
2-4
4-6
0-2
5-7
1-3
7-8
3-5
ICE FREE


Southern Ice Limit
Date: 29 MAY 1979
FLEWEAFAC Suitland
Analysis of Data: 27 – 29 MAY 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
O/W
8/8 MY
8/8 FY
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W


30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
145W
150W
155W
160W
165W
170W
175W
180
175E
170E
O/W
8/8
MY
FAST ICE
8/8
FY
7-8
1-3
0-2
2-4
4-6
3-5
ICE FREE
ICE LIMIT


SOUTHERN ICE LIMIT
Date: 05 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 03-05 JUNE 1979
O/W
8/8 MY
8/8 FY
ICE FREE
ICE FREE
FAST ICE
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
80E
85E
90E
95E
100E
105E
110E
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120E
125E
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135E
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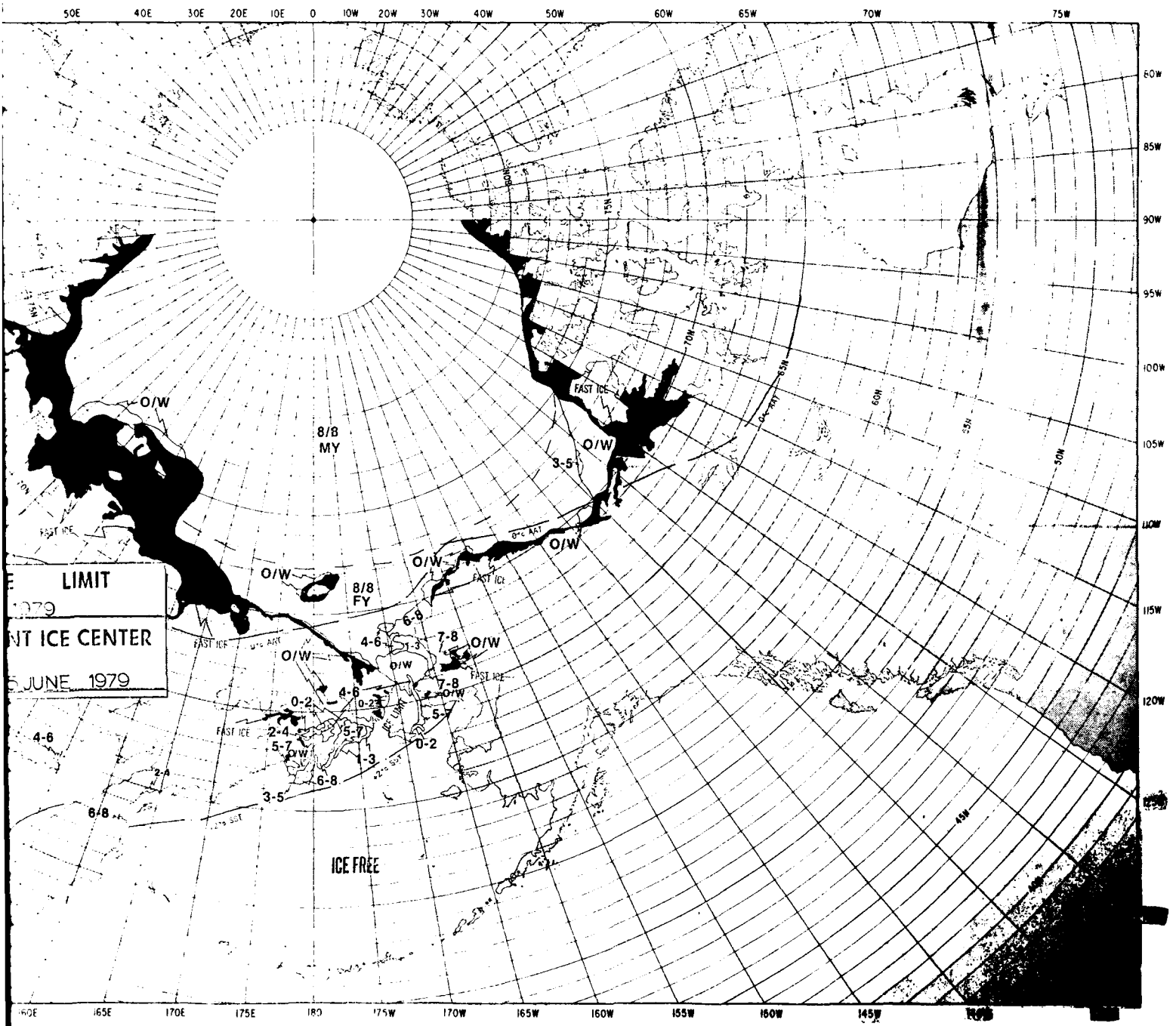
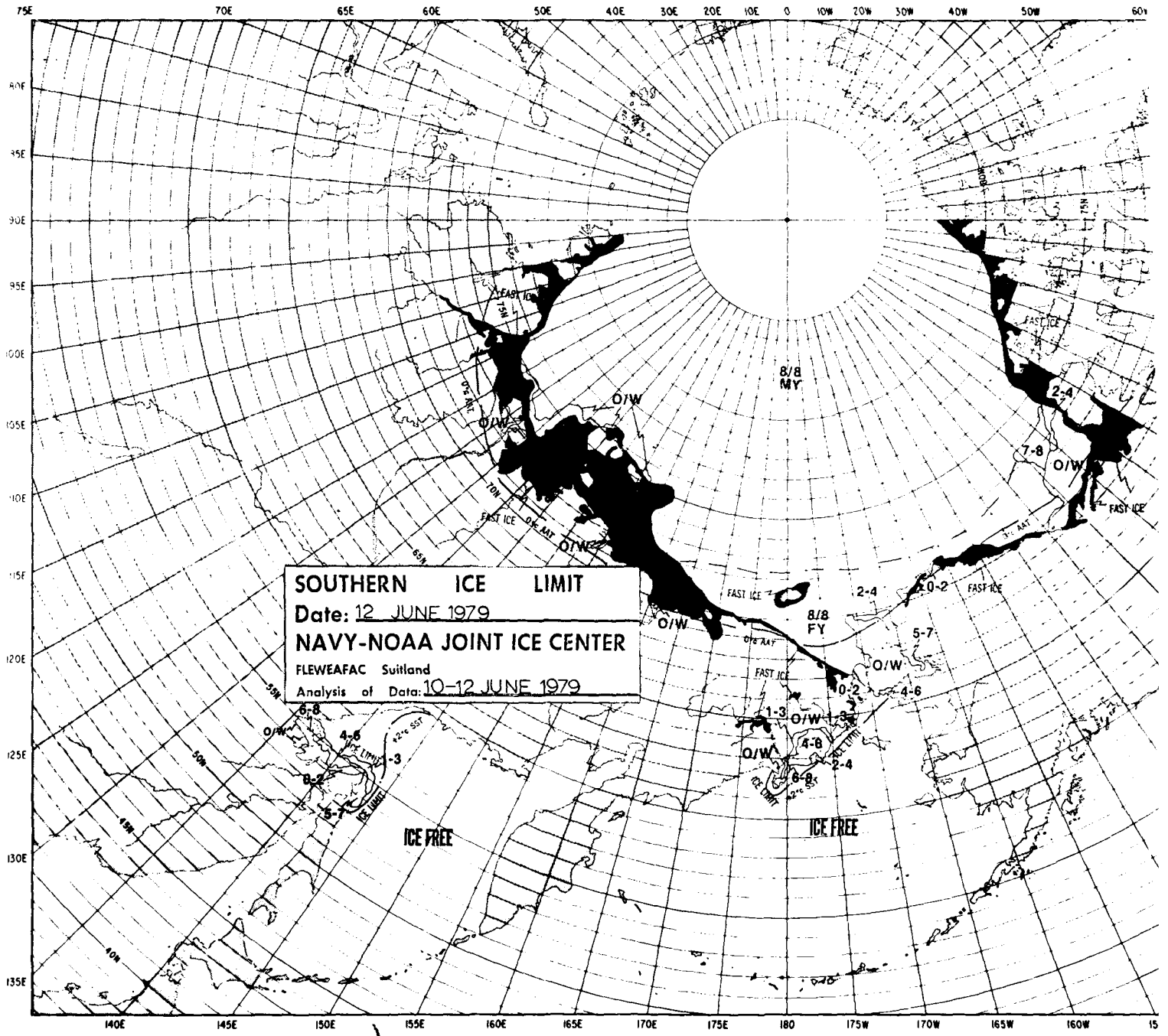
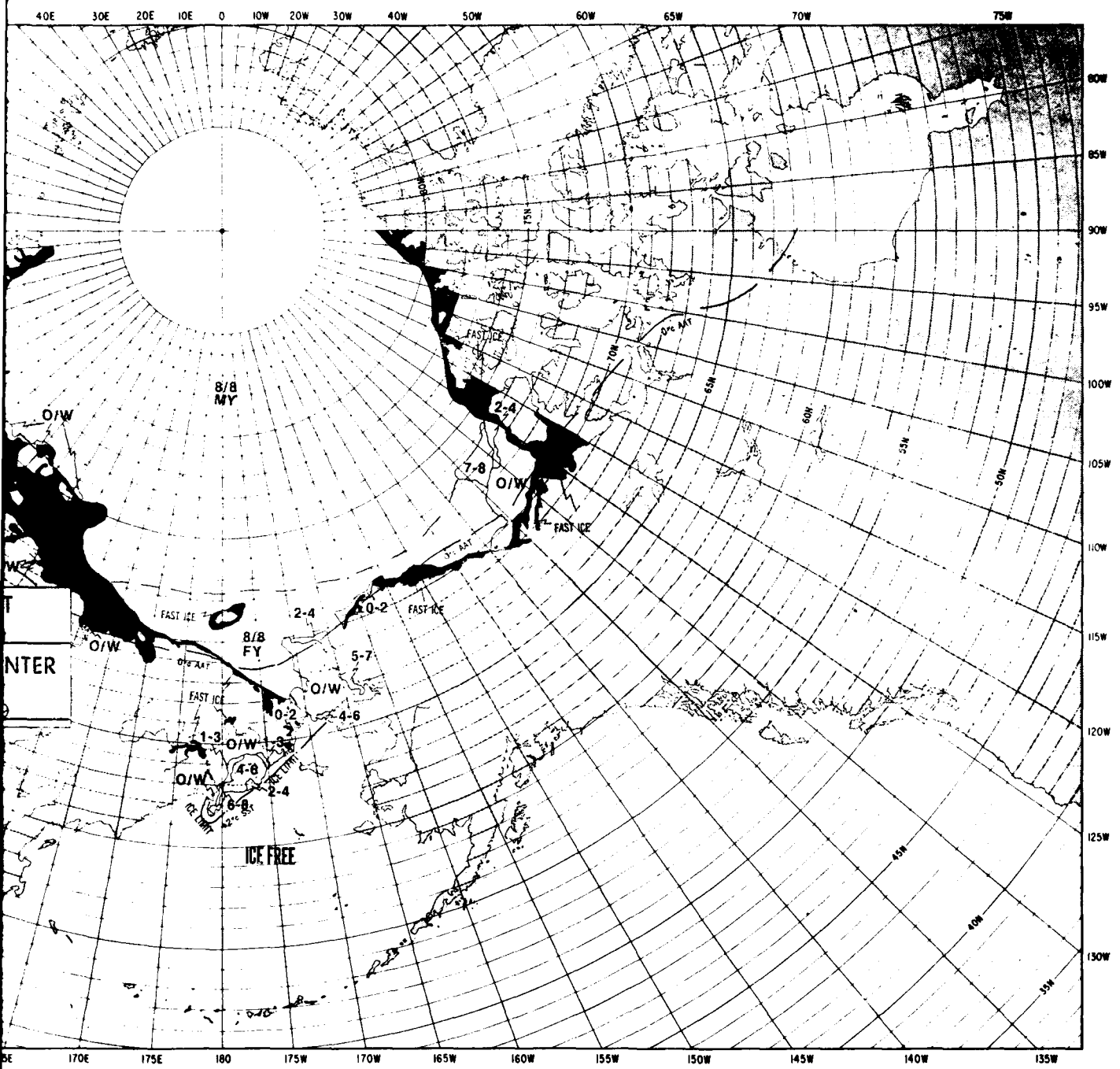
70N
65N
55N
50N
45N
40N

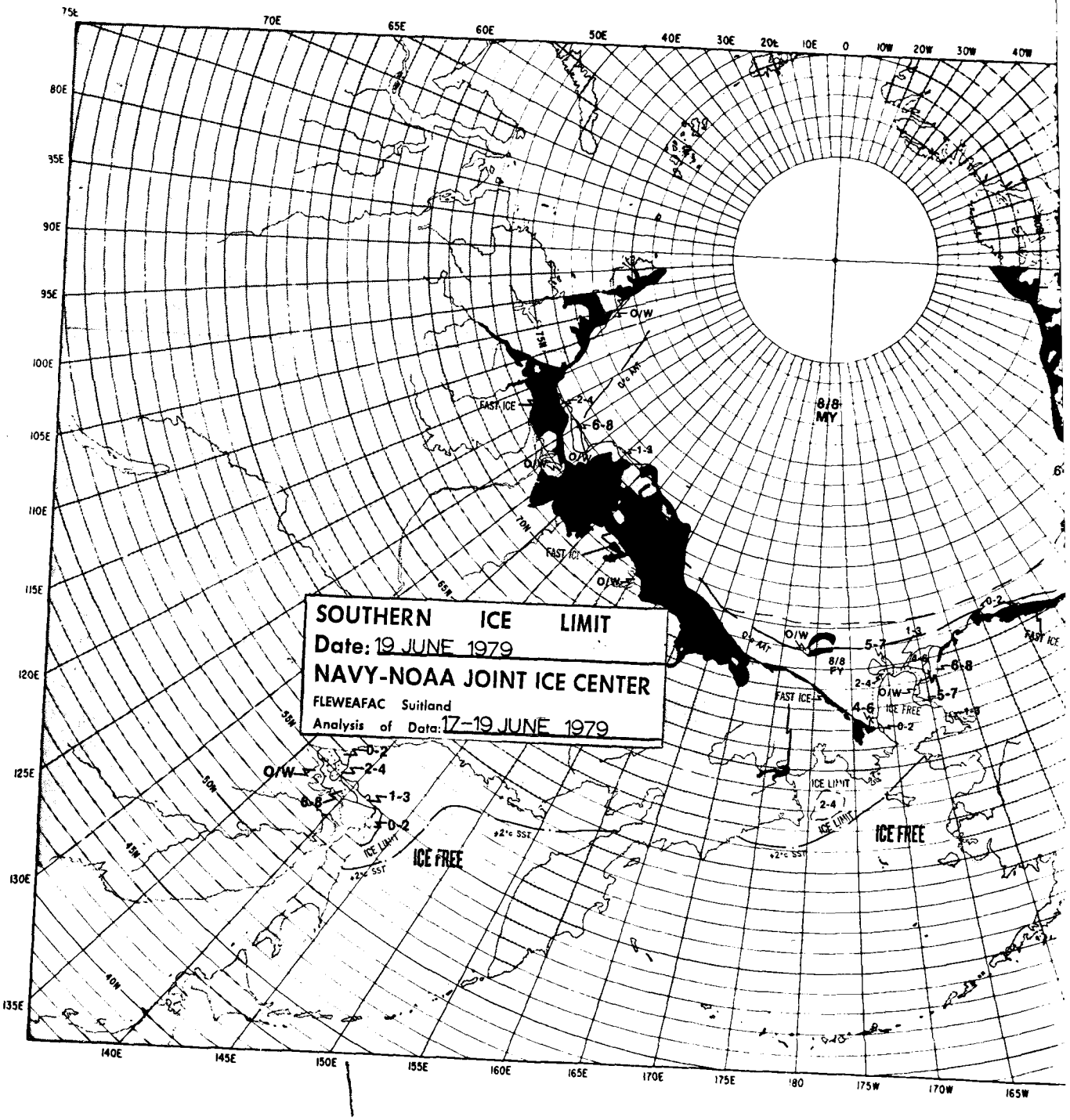

50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
160E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
O/W
8/8
MY
8/8
FY
FAST ICE
3-5
6-8
4-6
7-8
0-2
2-4
5-7
1-3
ICE FREE
LIMIT
1979
NT ICE CENTER
5 JUNE 1979

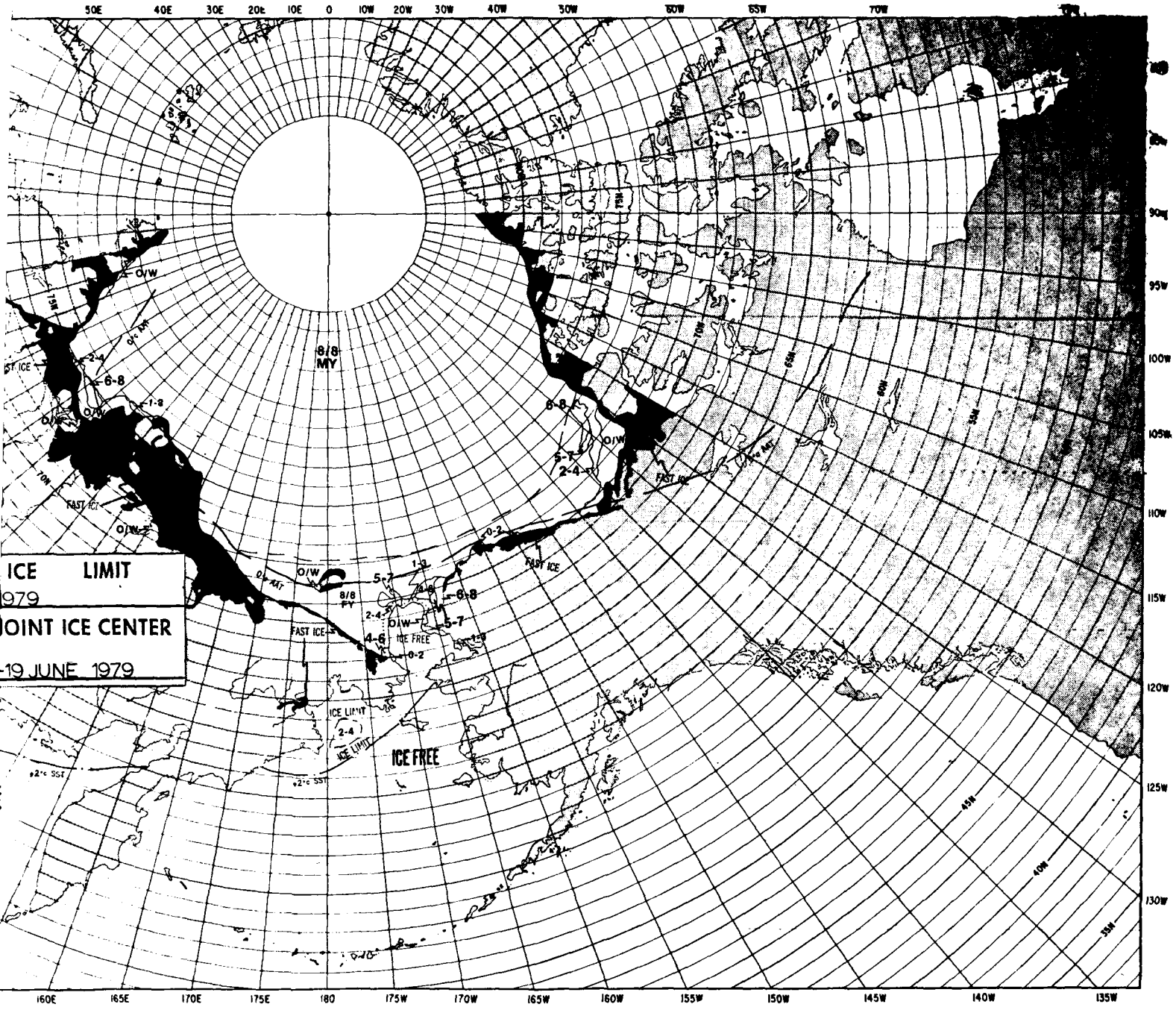

SOUTHERN ICE LIMIT
Date: 12 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 10-12 JUNE 1979
ICE FREE
ICE FREE
FAST ICE
O/W
8/8 MY
8/8 FY
2-4
0-2
4-6
5-7
6-8
1-3
7-8



40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
O/W
FAST ICE
2-4
7-8
O/W
FAST ICE
0-2
FAST ICE
2-4
8/8
FY
O/W
5-7
O/W
FAST ICE
0-2
4-6
1-3
O/W
4-6
O/W
2-4
6-8
ICE LIMIT
ICE FREE
NTER

2


SOUTHERN ICE LIMIT
Date: 19 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 17-19 JUNE 1979
ICE FREE
FAST ICE
O/W
8/8 MY
8/8 FY
ICE LIMIT
+2°c SST


ICE LIMIT
1979
JOINT ICE CENTER
-19 JUNE 1979
ICE FREE
ICE LIMIT
FAST ICE
8/8 MY
8/8 FY
O/W
2-4
6-8
5-7
4-6
0-2
1-3
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
90W
95W
100W
105W
110W
115W
120W
125W
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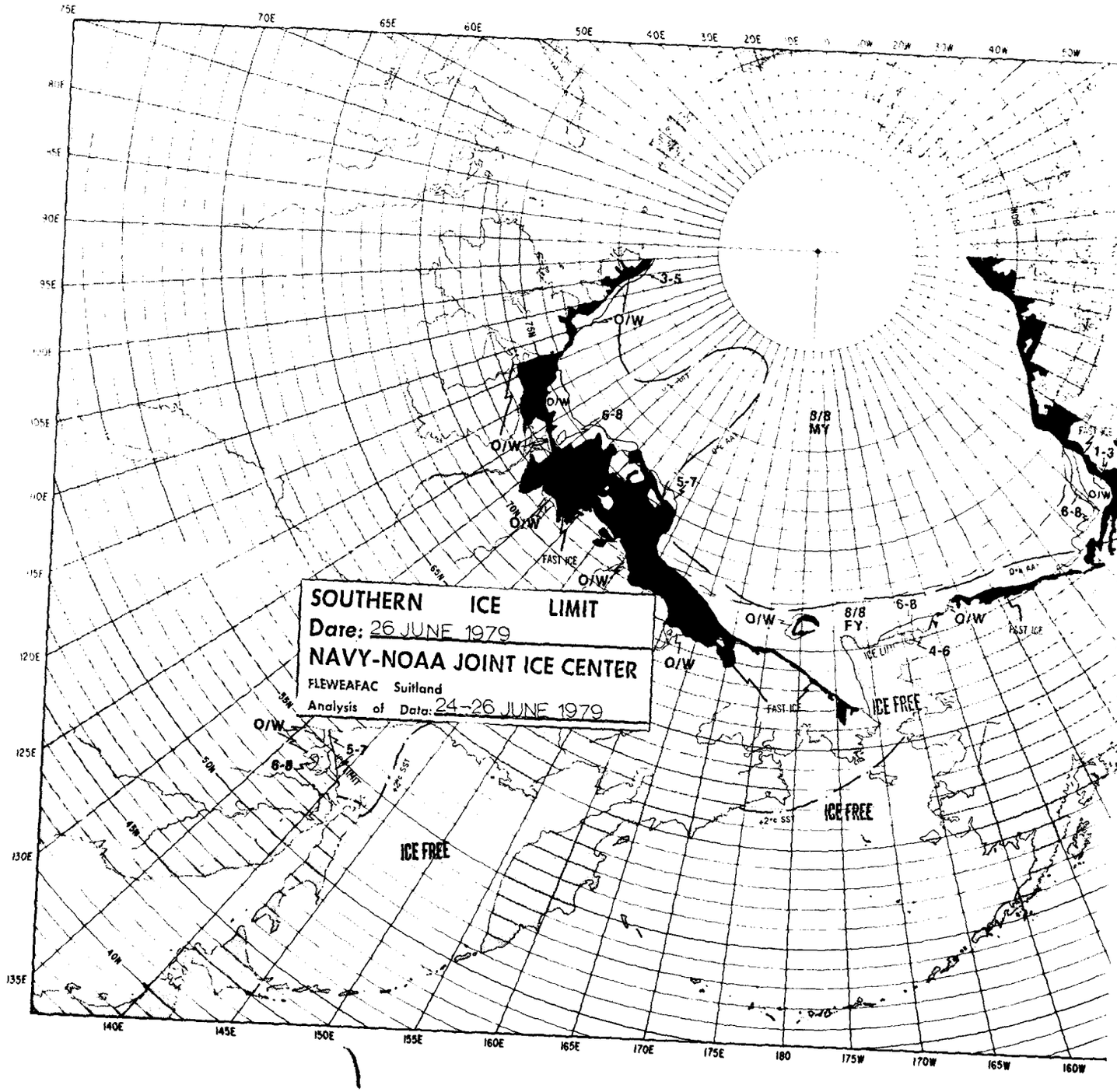
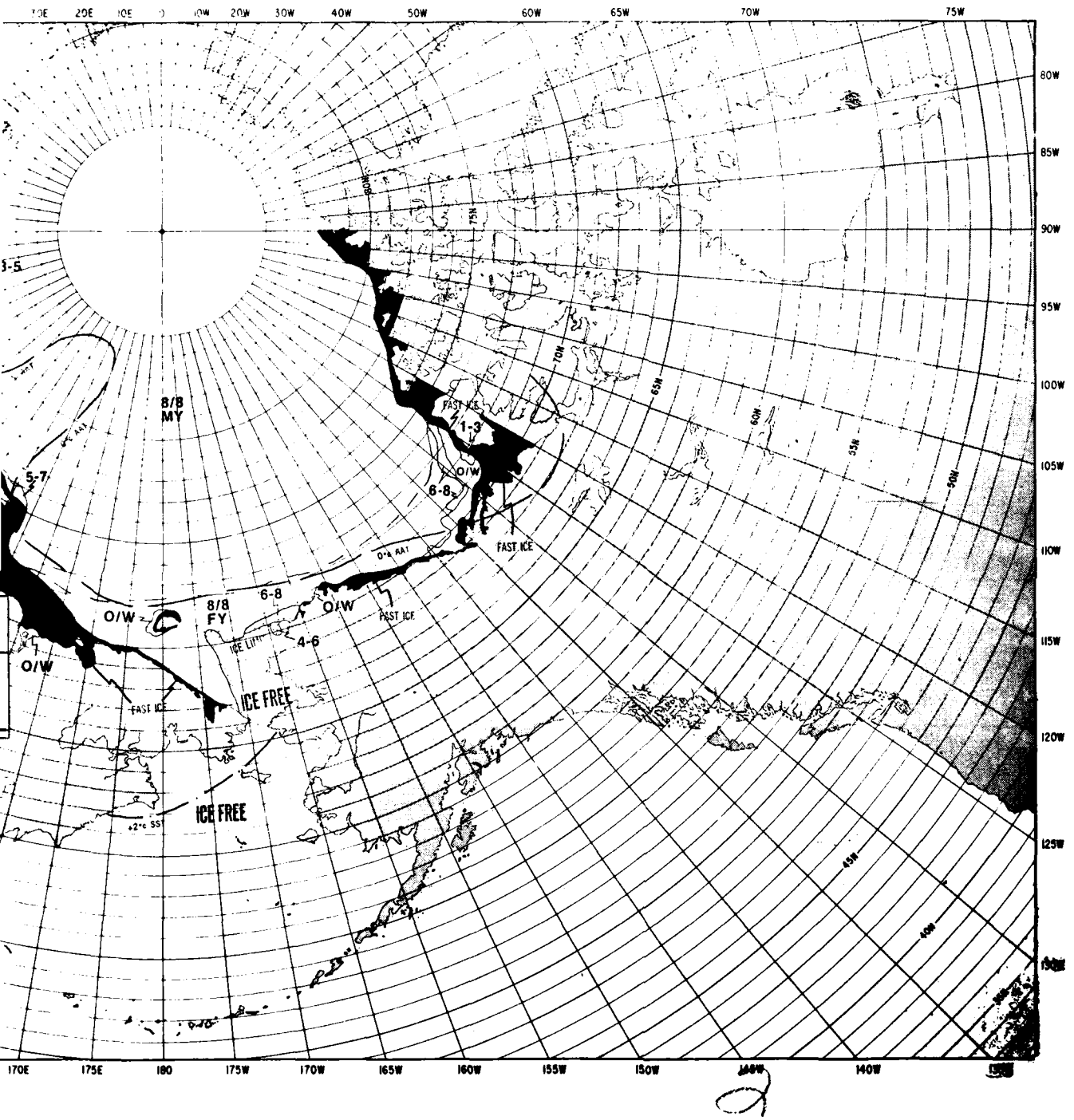
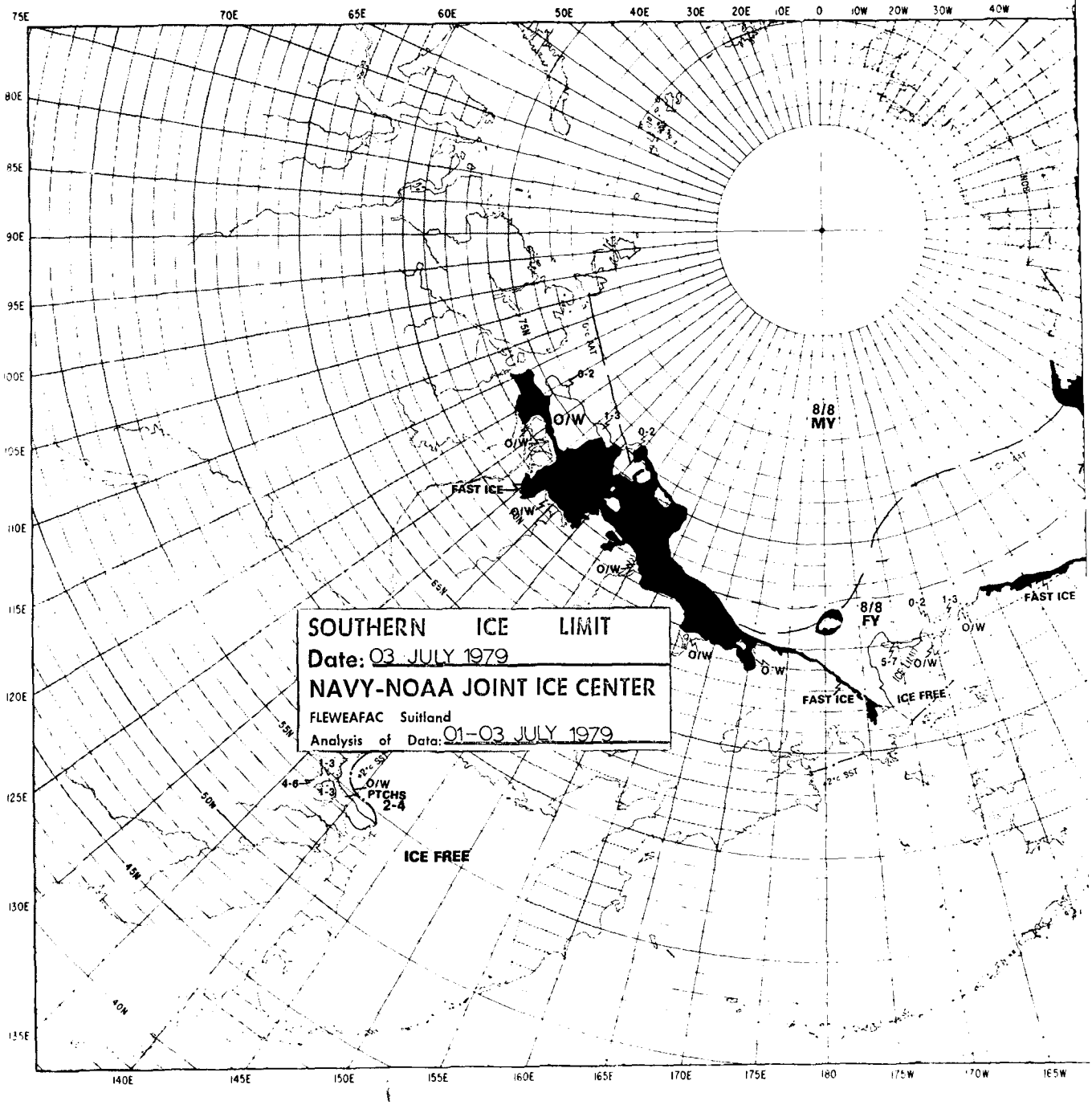
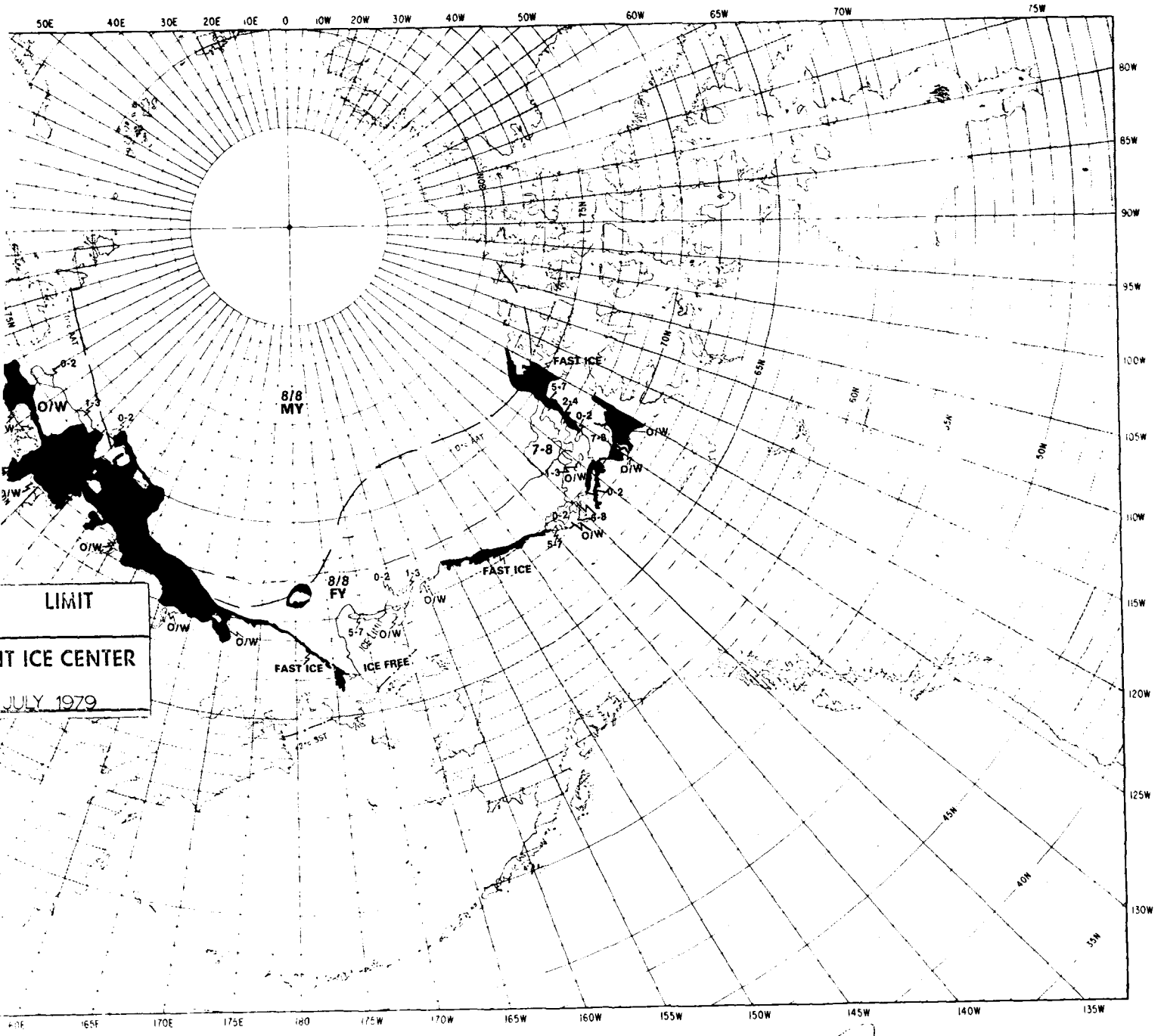
155W
150W
145W
140W
135W

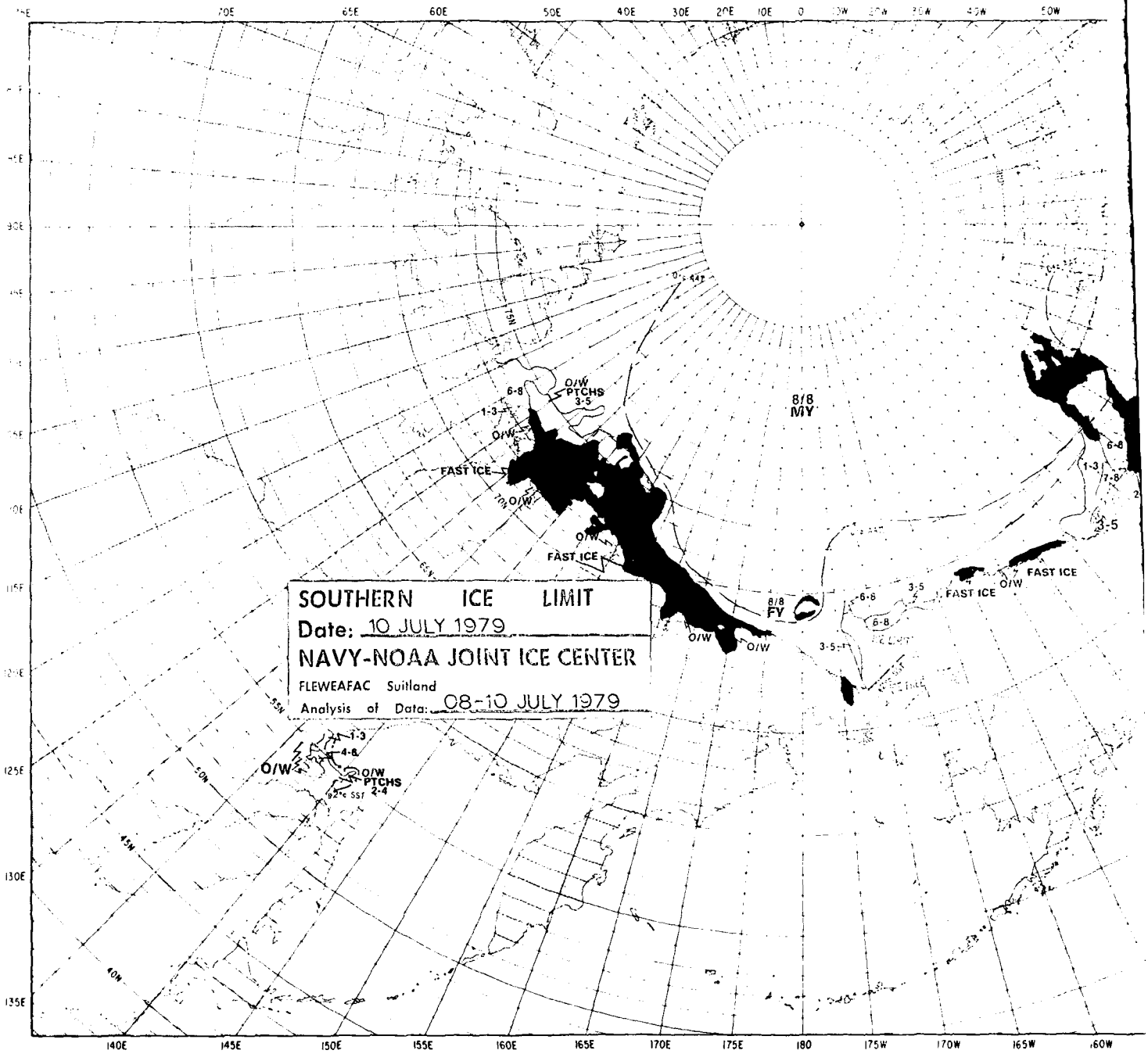

SOUTHERN ICE LIMIT
Date: 26 JUNE 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 24-26 JUNE 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
O/W
3-5
6-8
5-7
8/8 MY
8/8 FY
4-6
1-3


10E
20E
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
170E
175E
180
175W
170W
165W
160W
155W
150W
140W
8/8
MY
5-7
FAST ICE
1-3
O/W
6-8
FAST ICE
O/W
8/8
FY
6-8
O/W
FAST ICE
ICE LIM
4-6
O/W
FAST ICE
ICE FREE
ICE FREE
+2°c SST


SOUTHERN ICE LIMIT
Date: 03 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 01-03 JULY 1979
8/8 MY
8/8 FY
FAST ICE
ICE FREE
O/W
PTCHS 2-4
75N
65N
55N
50N
45N
40N
0-2
1-3
4-6
5-7
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W



LIMIT
IT ICE CENTER
JULY 1979
8/8
MY
8/8
FY
FAST ICE
ICE FREE
O/W
7-8


SOUTHERN ICE LIMIT
Date: 10 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 08-10 JULY 1979
FAST ICE
O/W
PTCHS
3-5
6-8
1-3
8/8
MY
8/8
FY
4-6
2-4
92°c SST
70E
65E
60E
50E
40E
30E
20E
10E
0
50W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
125E
130E
135E
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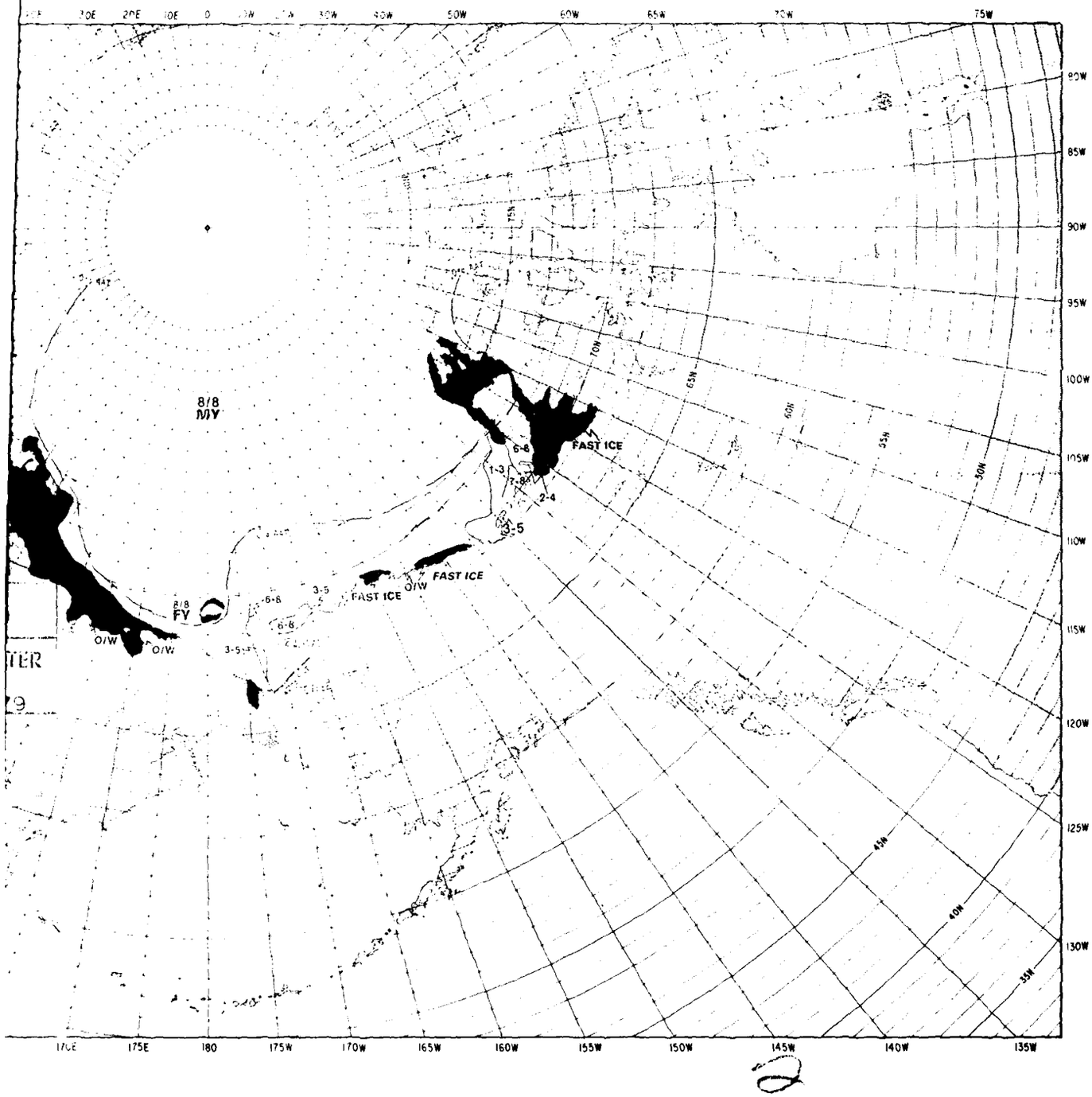
70N
55N
50N
45N
40N



30E
20E
10E
0
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FY
FAST ICE
FAST ICE
FAST ICE
O/W
O/W
O/W
6-8
1-3
2-4
3-5
3-5
6-8
6-8
3-5
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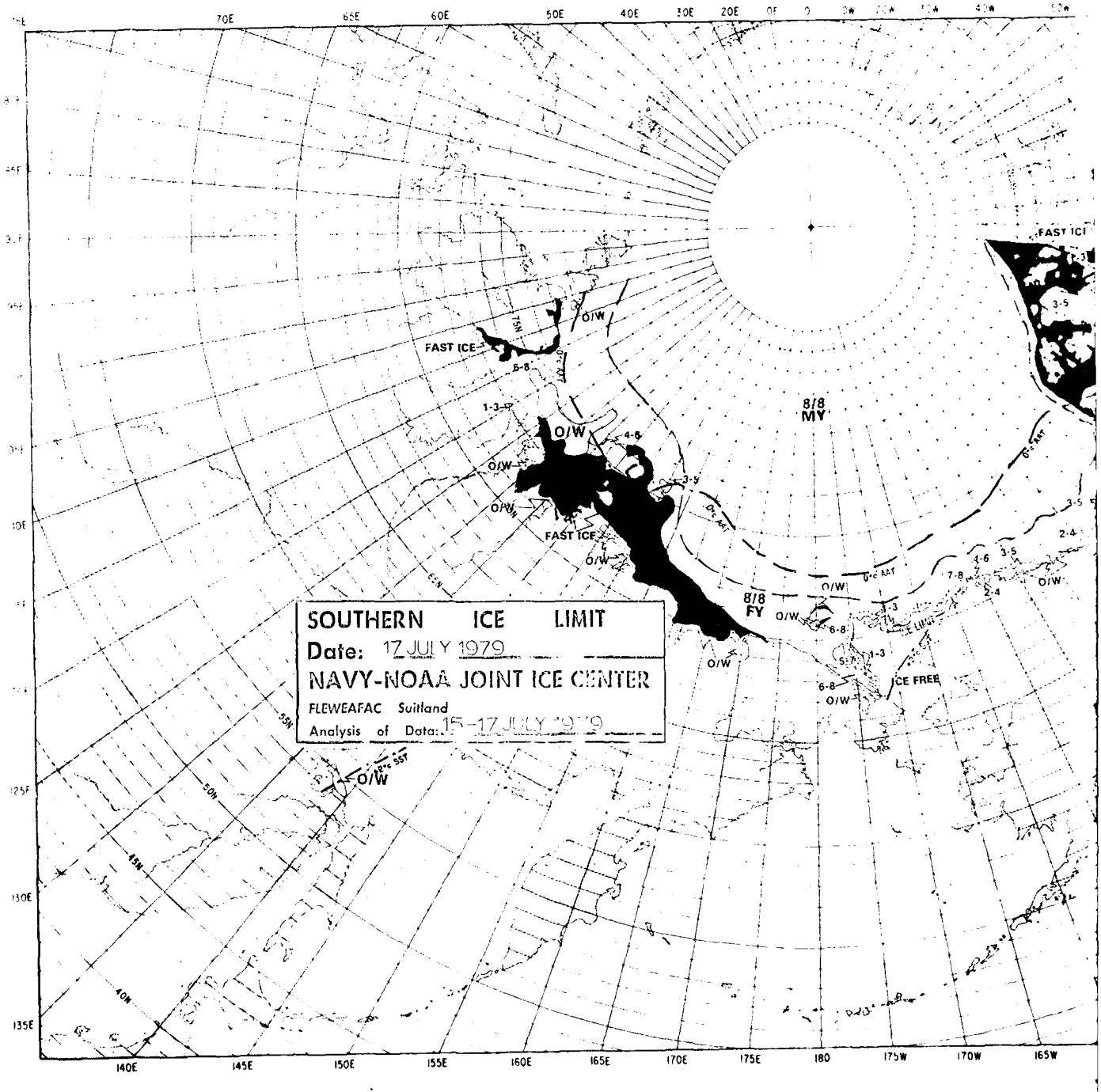
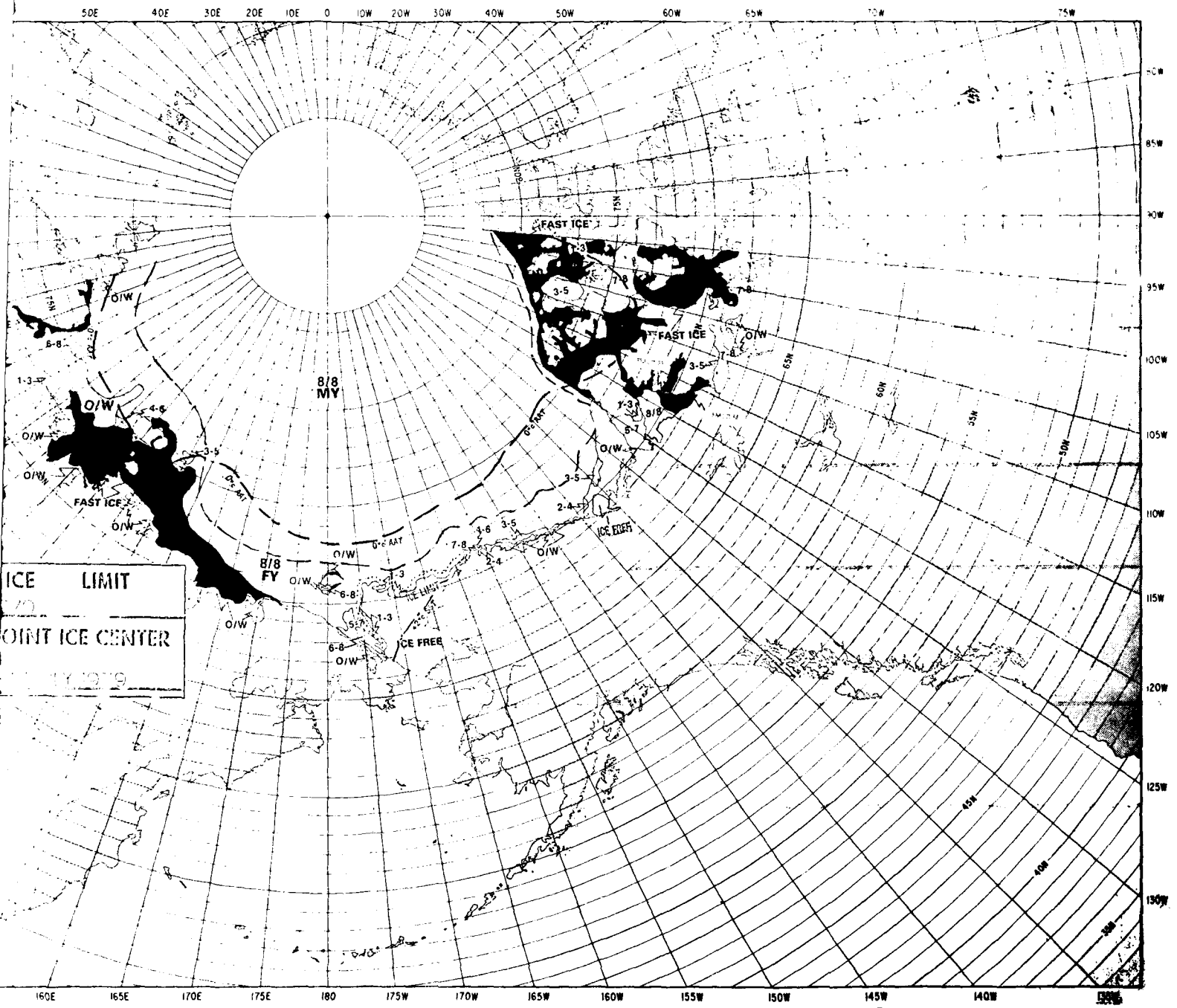
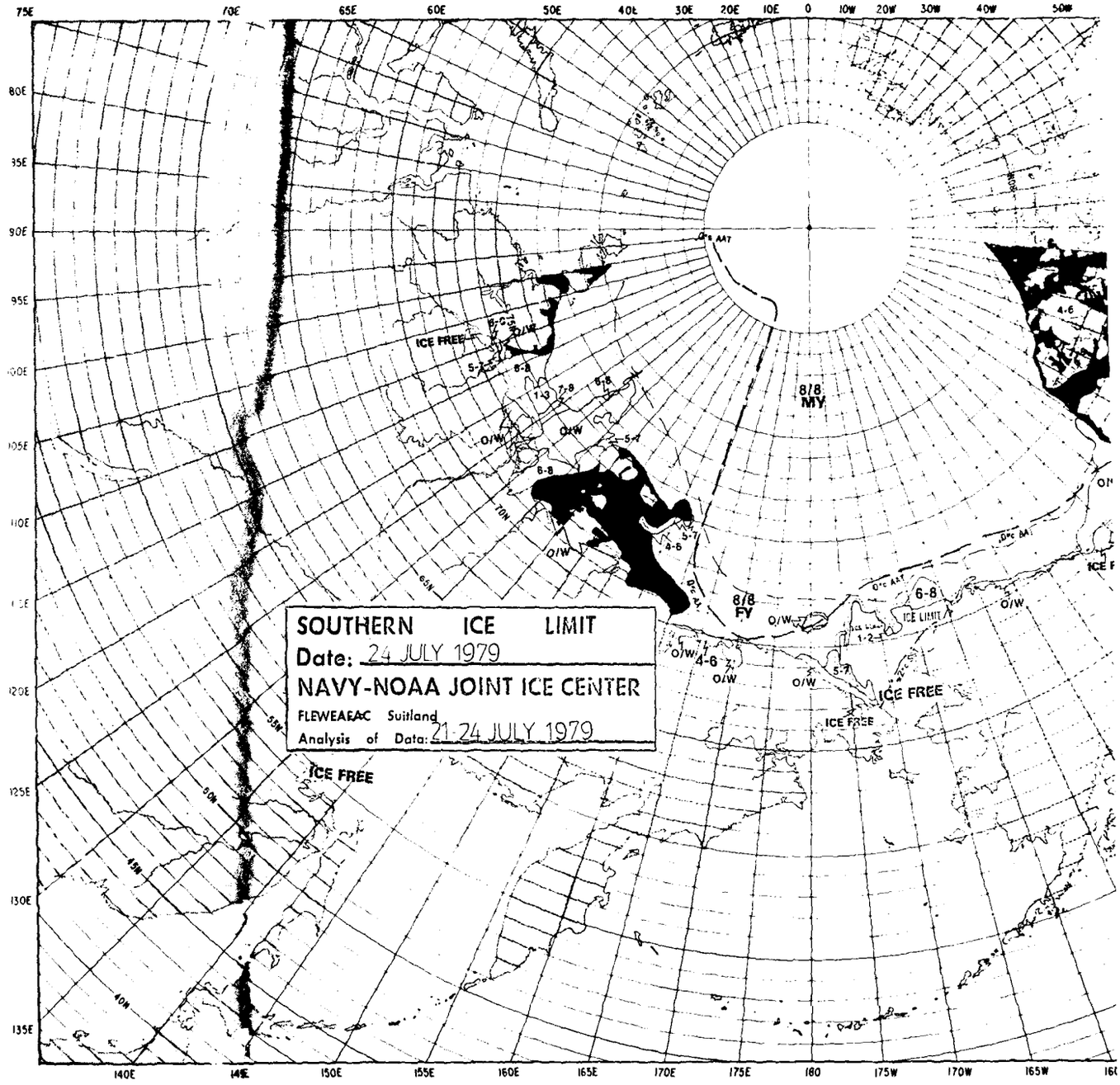
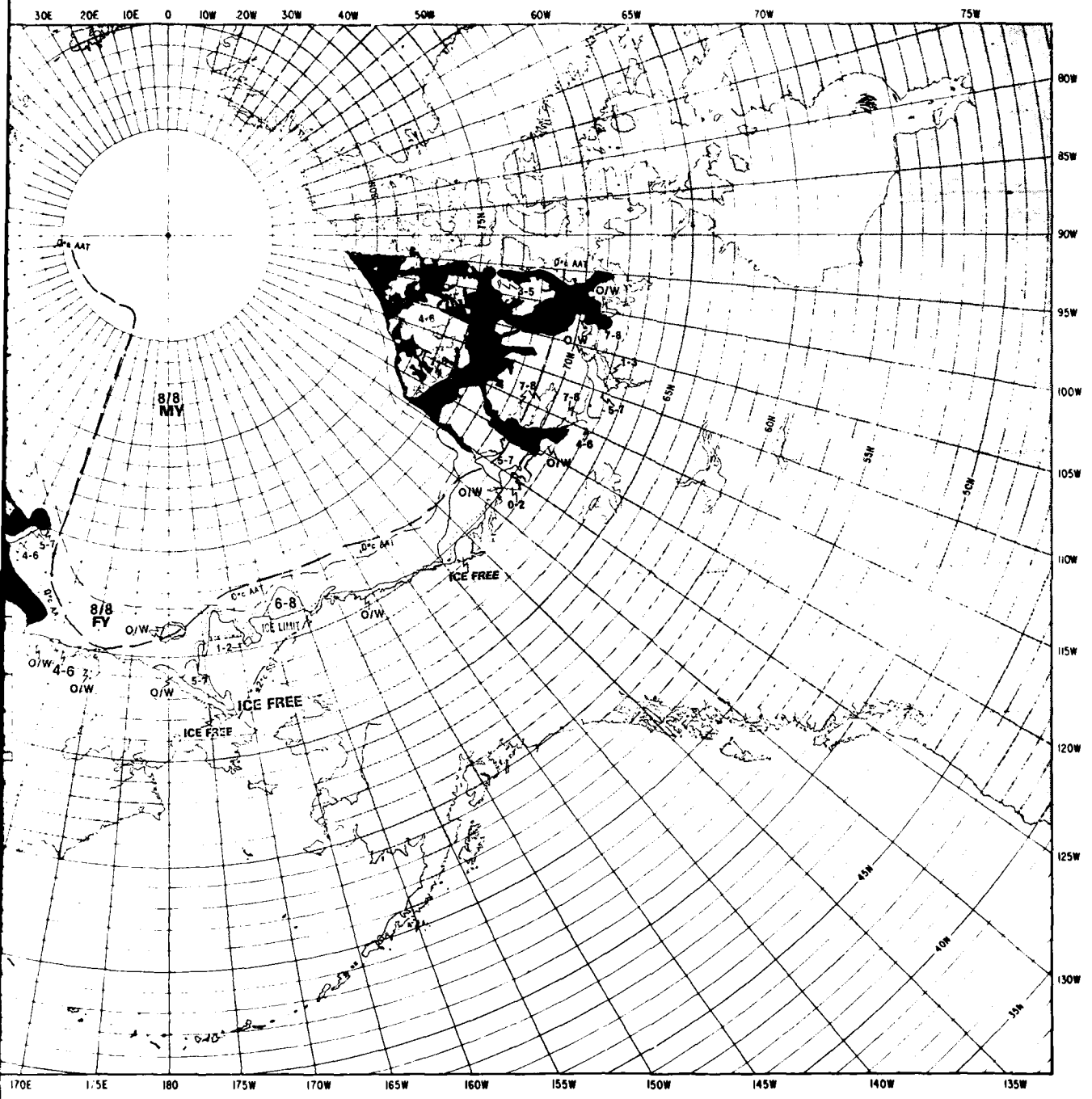
65N
60N
55N
50N
45N
40N
35N
TER

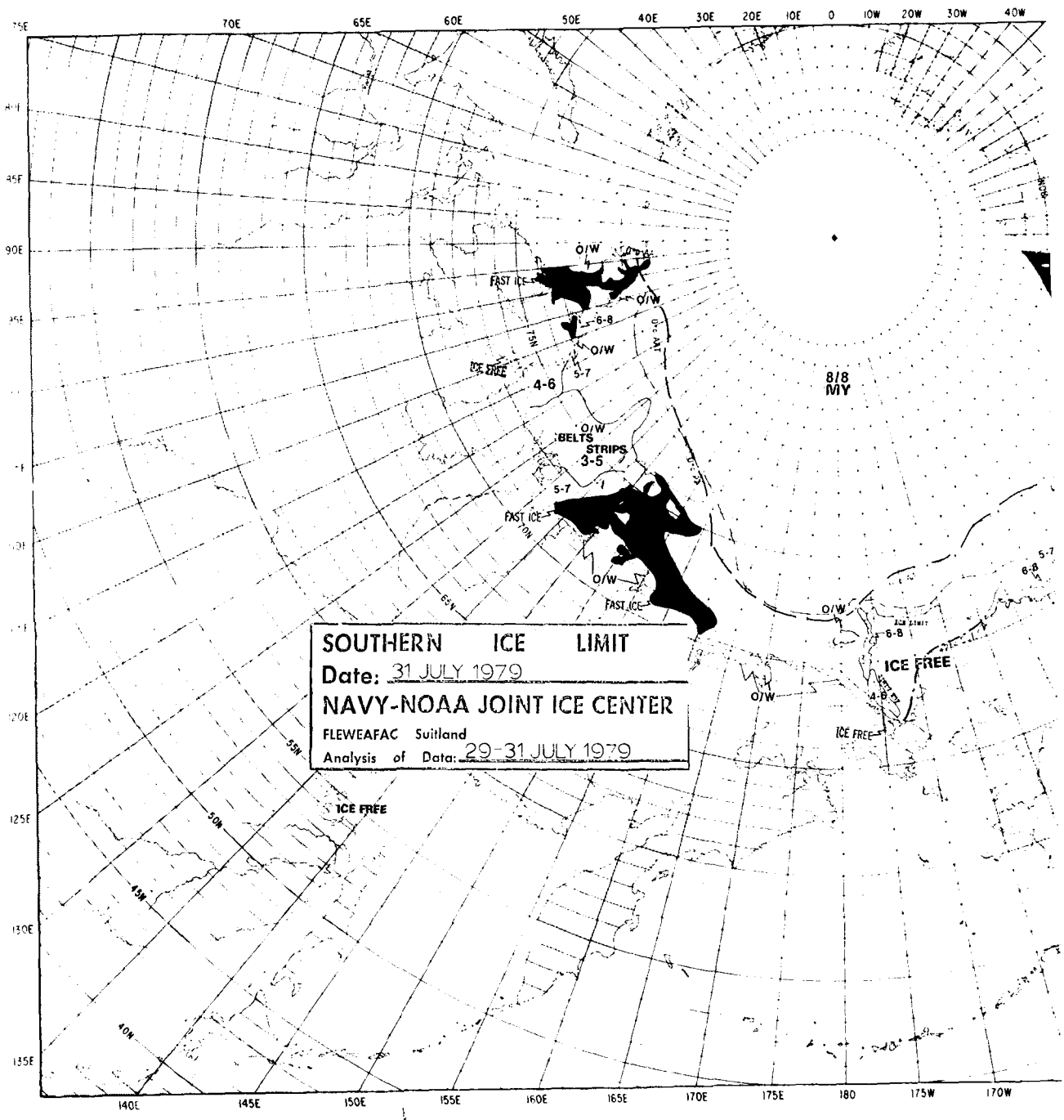

SOUTHERN ICE LIMIT
Date: 17 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 15-17 JULY 1979
FAST ICE
O/W
8/8 MY
8/8 FY
ICE FREE
70E
65E
60E
50E
40E
30E
20E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
75N
70N
65N
60N
55N
50N
45N
40N
135E
130E
125E

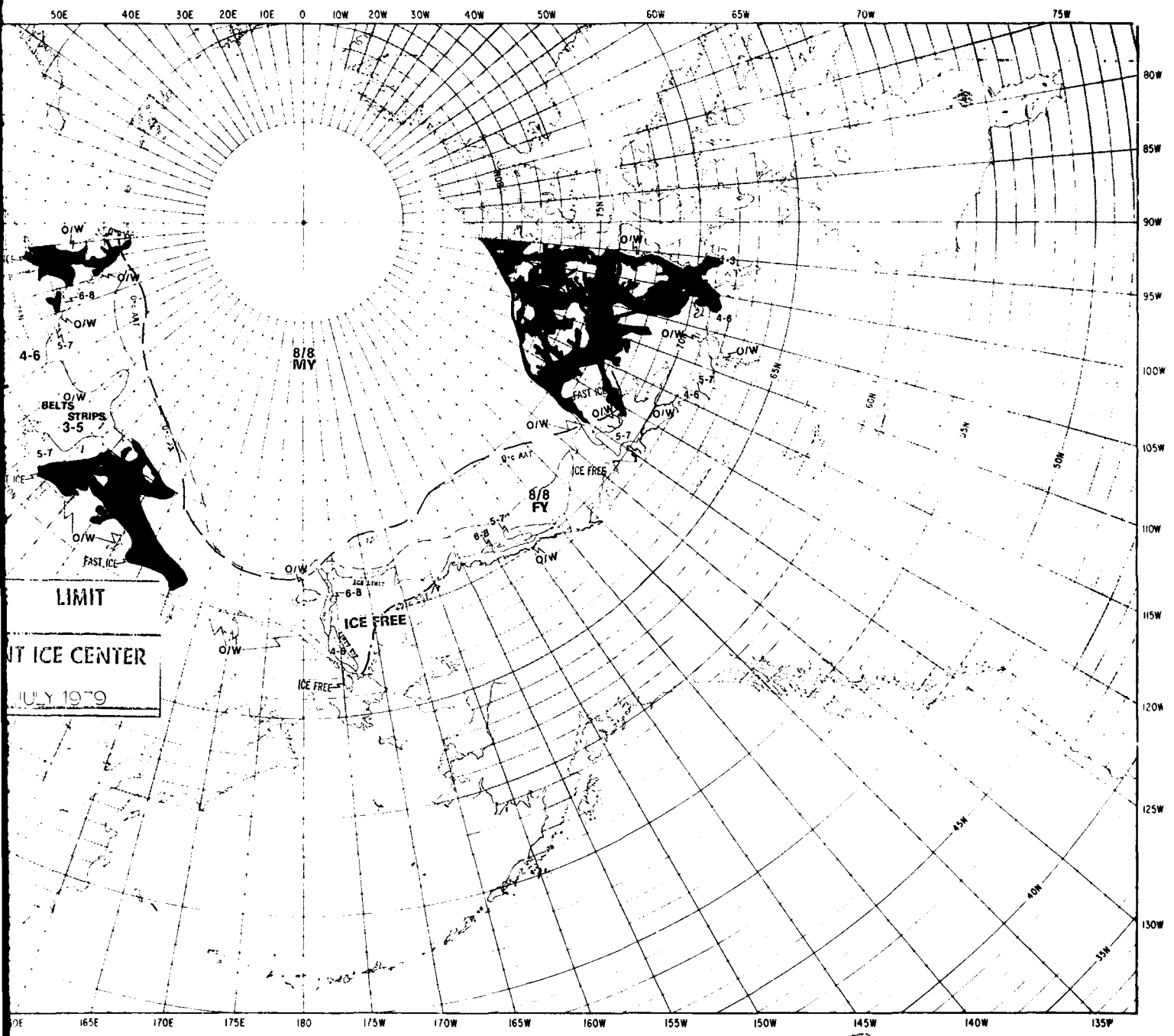

50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
160E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
FAST ICE
FAST ICE
FAST ICE
8/8
MY
8/8
FY
O/W
ICE FREE
ICE EDGE
ICE LIMIT
ICE LIMIT
POINT ICE CENTER

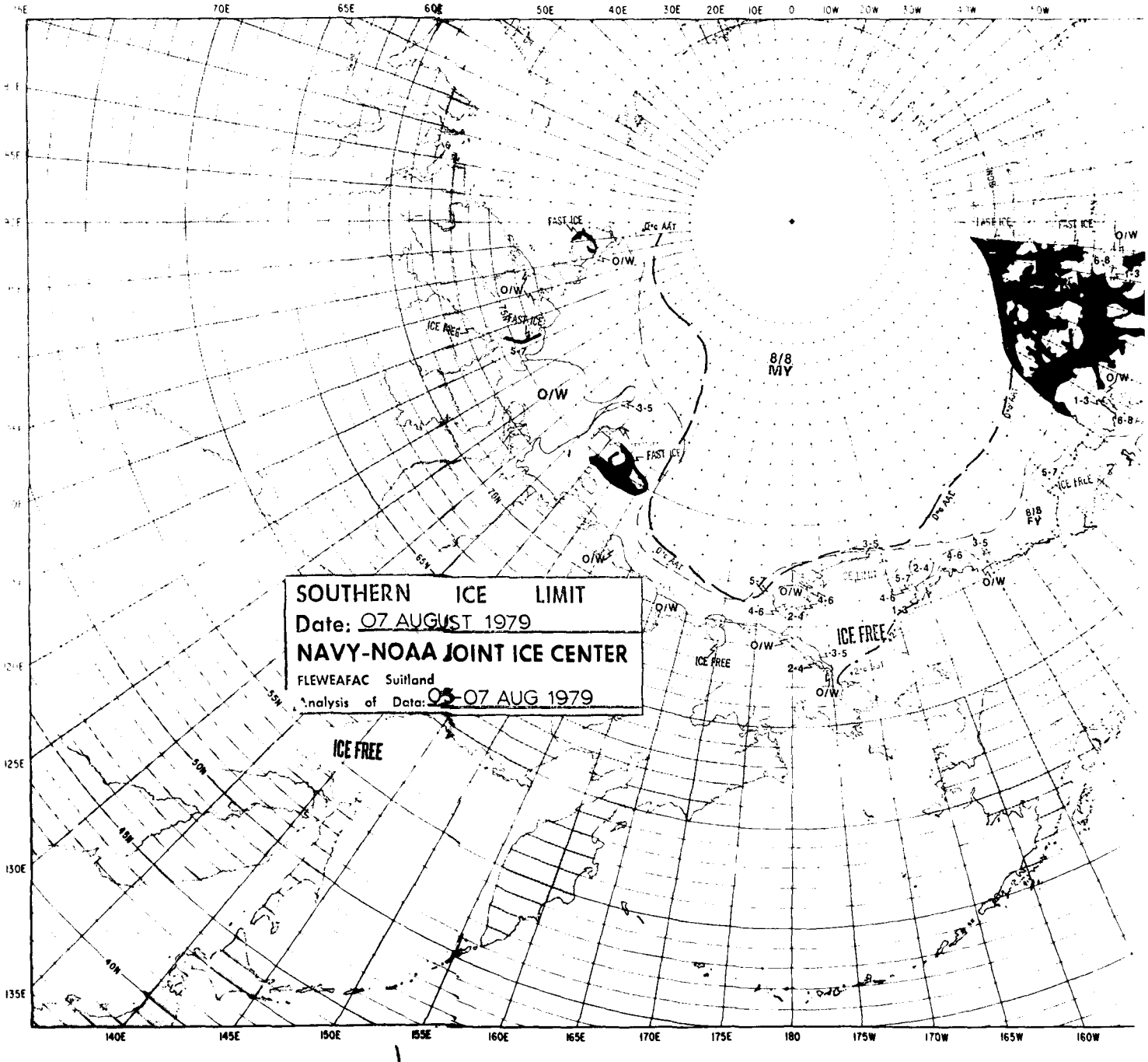

SOUTHERN ICE LIMIT
Date: 24 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEARAC Suitland
Analysis of Data: 21-24 JULY 1979
ICE FREE
8/8 MY
8/8 FY
6-8
4-6
O/W
ICE LIMIT
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W

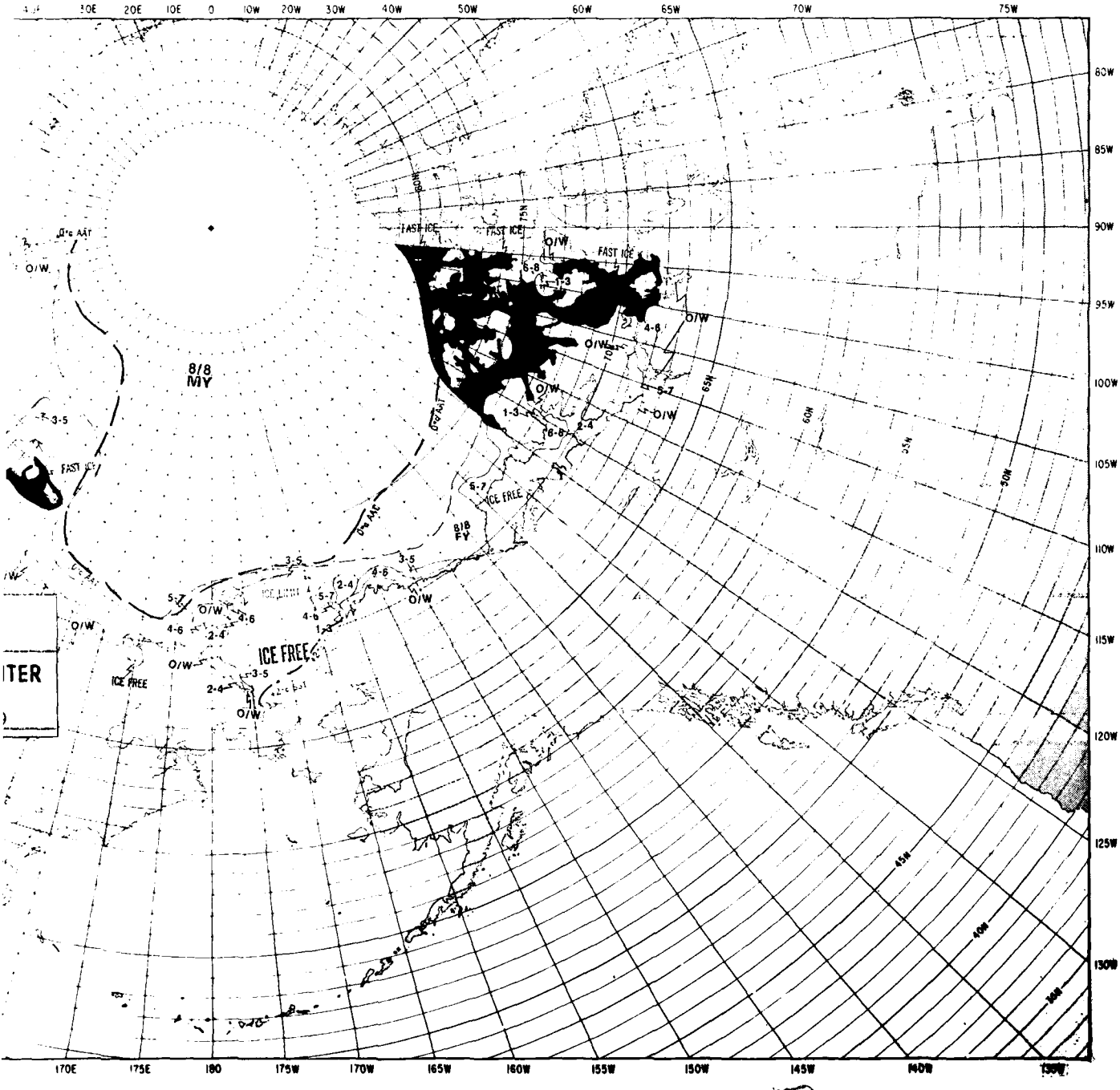

30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
MY
8/8
FY
ICE FREE
ICE FREE
ICE FREE
ICE LIMIT
O/W
4-6
5-7
6-8
1-2
3-5
7-8
1-3
5-7
4-6
0-2
75N
70N
65N
60N
55N
50N
45N
40N
35N

2


70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
90E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
O/W
FAST ICE
6-8
5-7
4-6
ICE FREE
8/8
MY
BELTS
STRIPS
3-5
75N
70N
65N
55N
50N
45N
40N
SOUTHERN ICE LIMIT
Date: 31 JULY 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 29-31 JULY 1979

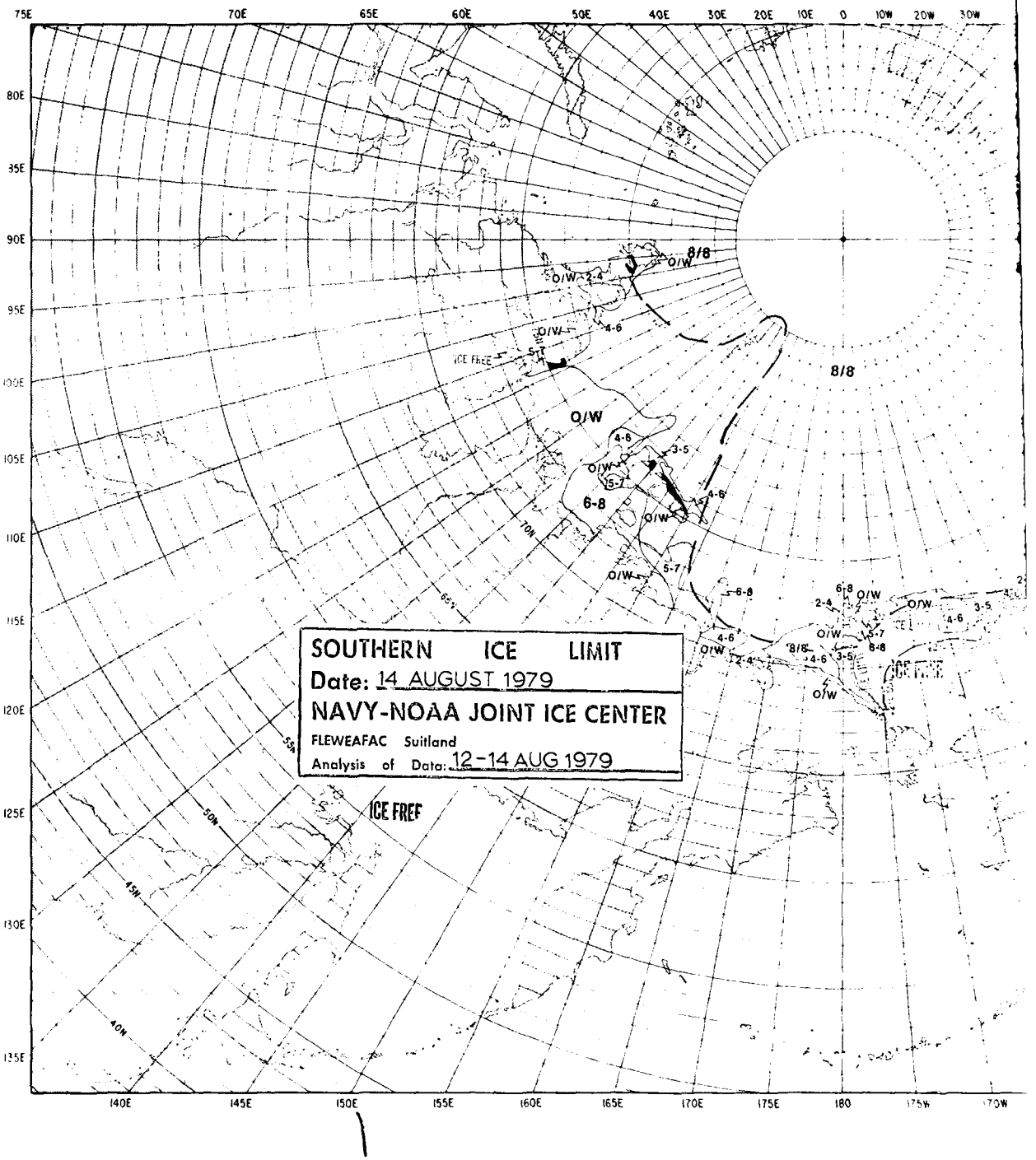

50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
O/W
4-6
5-7
6-8
8/8
MY
8/8
FY
BELTS
STRIPS
3-5
FAST ICE
ICE FREE
LIMIT
NT ICE CENTER
JULY 1979

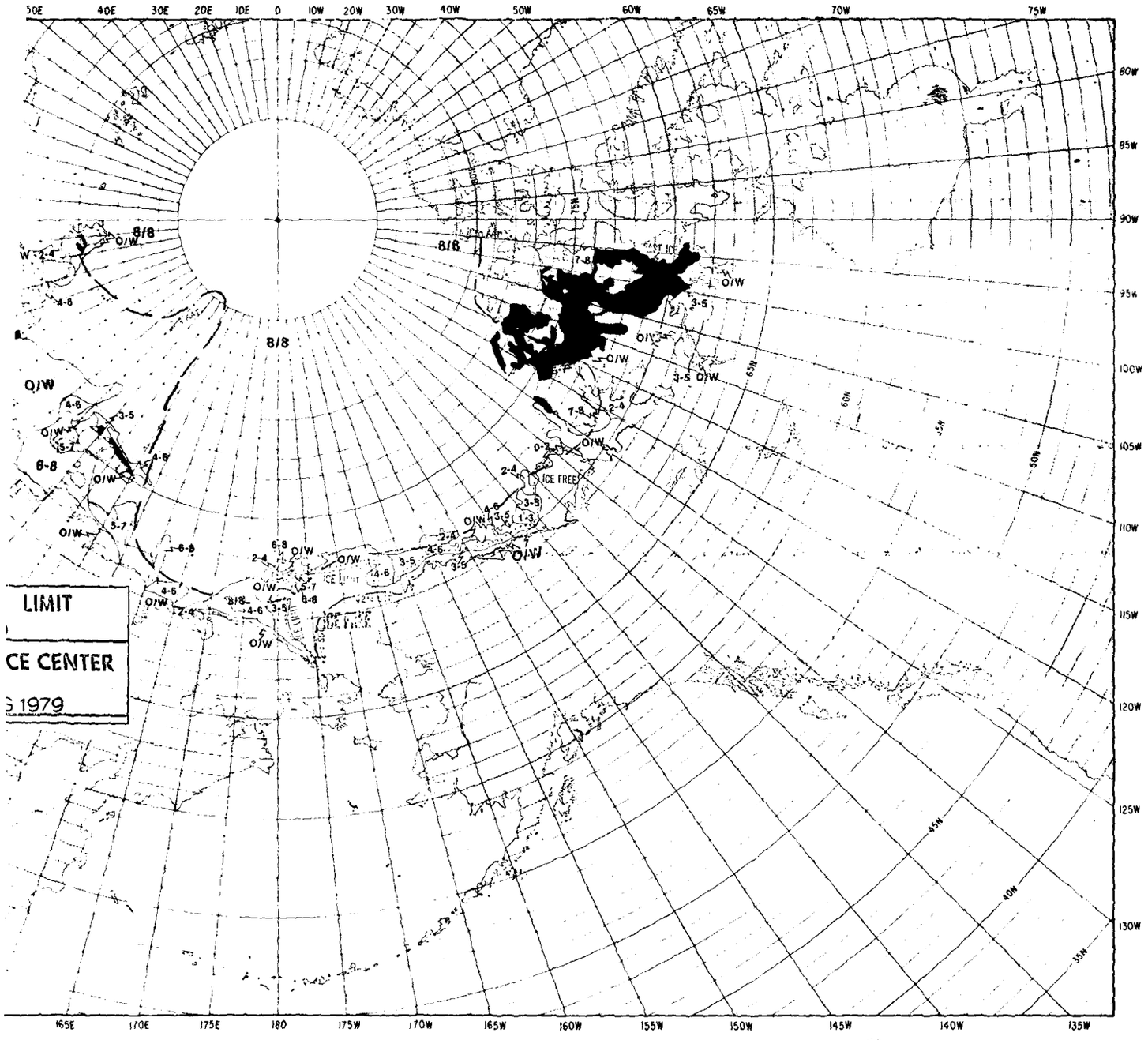

SOUTHERN ICE LIMIT
Date: 07 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 05-07 AUG 1979
ICE FREE
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
O/W
O/W
O/W
O/W
8/8 MY
8/8 FY
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
140E
145E
150E
155E
160E
165E
170E
175W
180
170W
165W
160W
125E
130E
135E

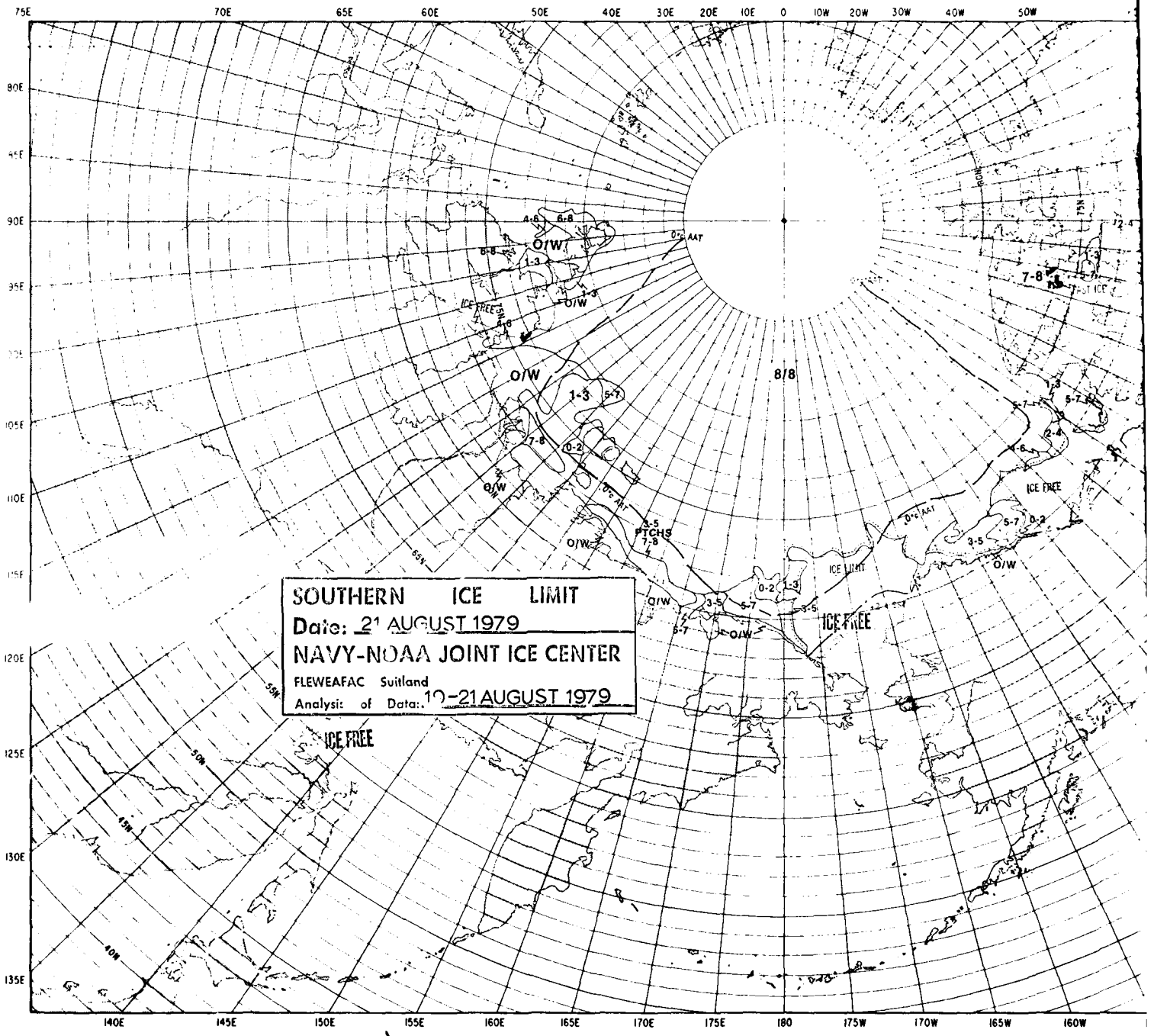


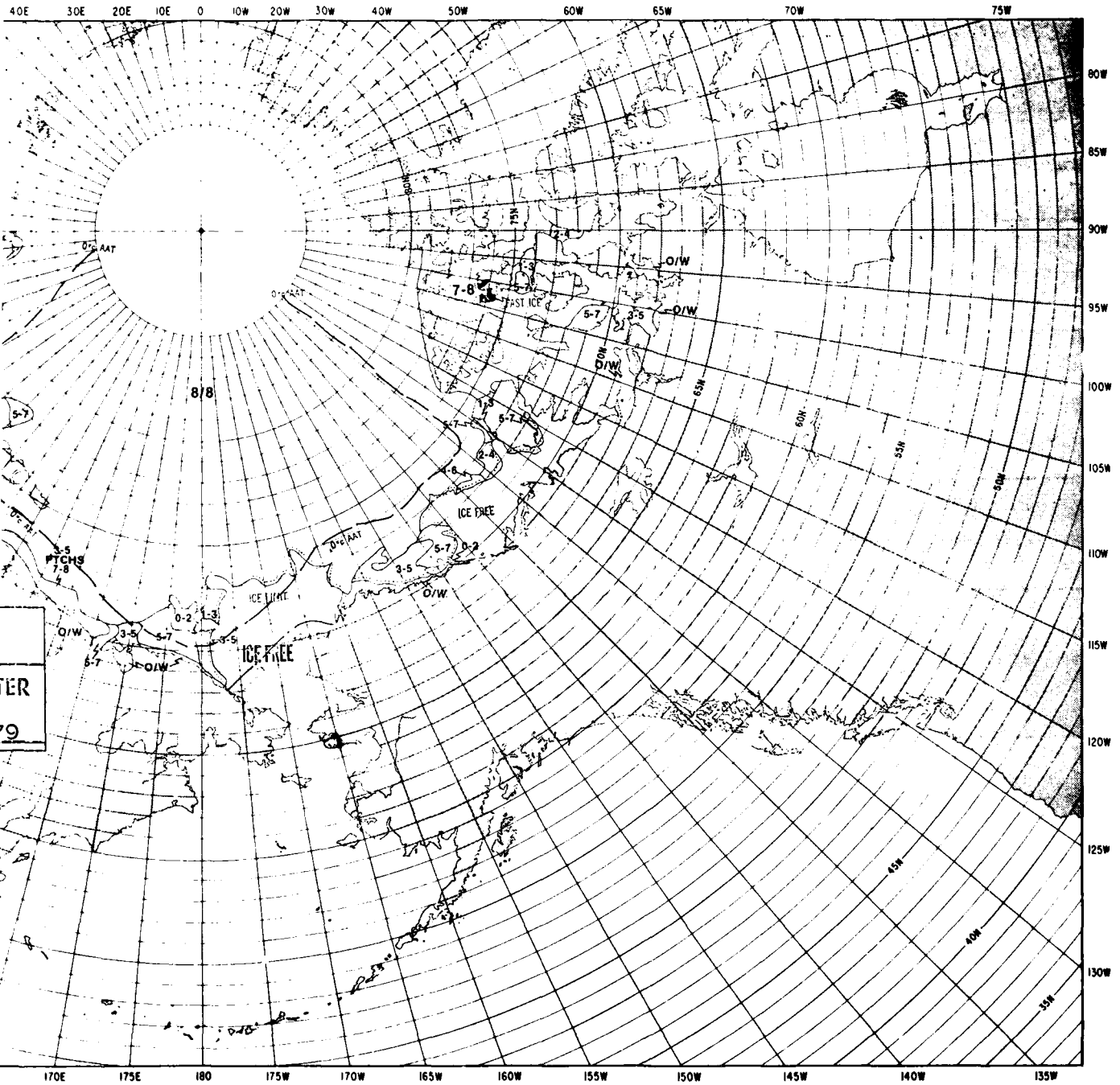
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
FAST ICE
O/W
8/8
MY
ICE FREE
8/8
FY
ITER

2


SOUTHERN ICE LIMIT
Date: 14 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 12-14 AUG 1979
ICE FREE
O/W
8/8
6-8
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W

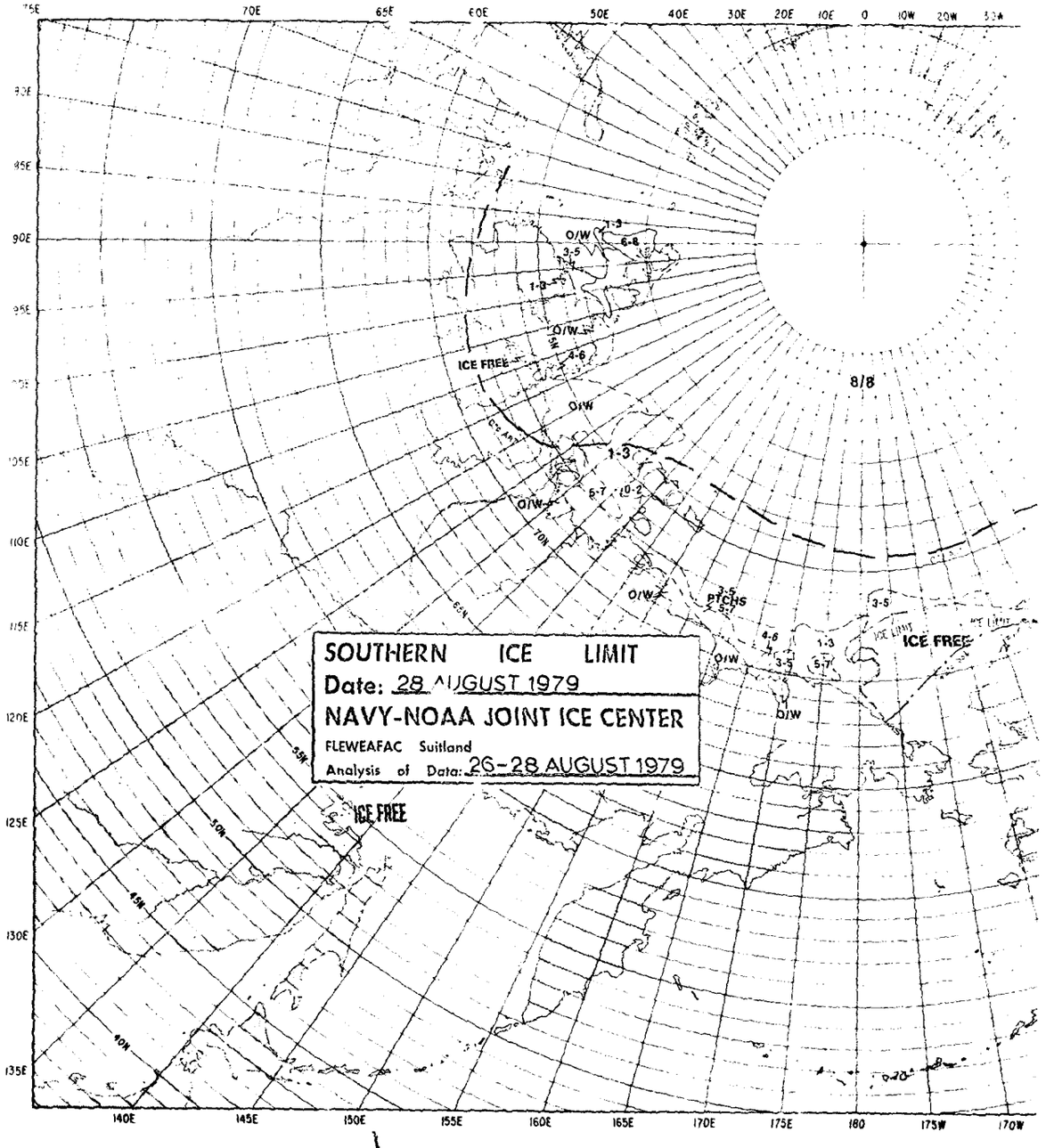

50E 40E 30E 20E 10E 0 10W 20W 30W 40W 50W 60W 65W 70W 75W
80W 85W 90W 95W 100W 105W 110W 115W 120W 125W 130W
65N 60N 55N 50N 45N 40N 35N
165E 170E 175E 180 175W 170W 165W 160W 155W 150W 145W 140W 135W
8/8
O/W
7-8
3-5
2-4
4-6
5-7
6-8
0-2
1-3
ICE FREE
LIMIT
CE CENTER
1979

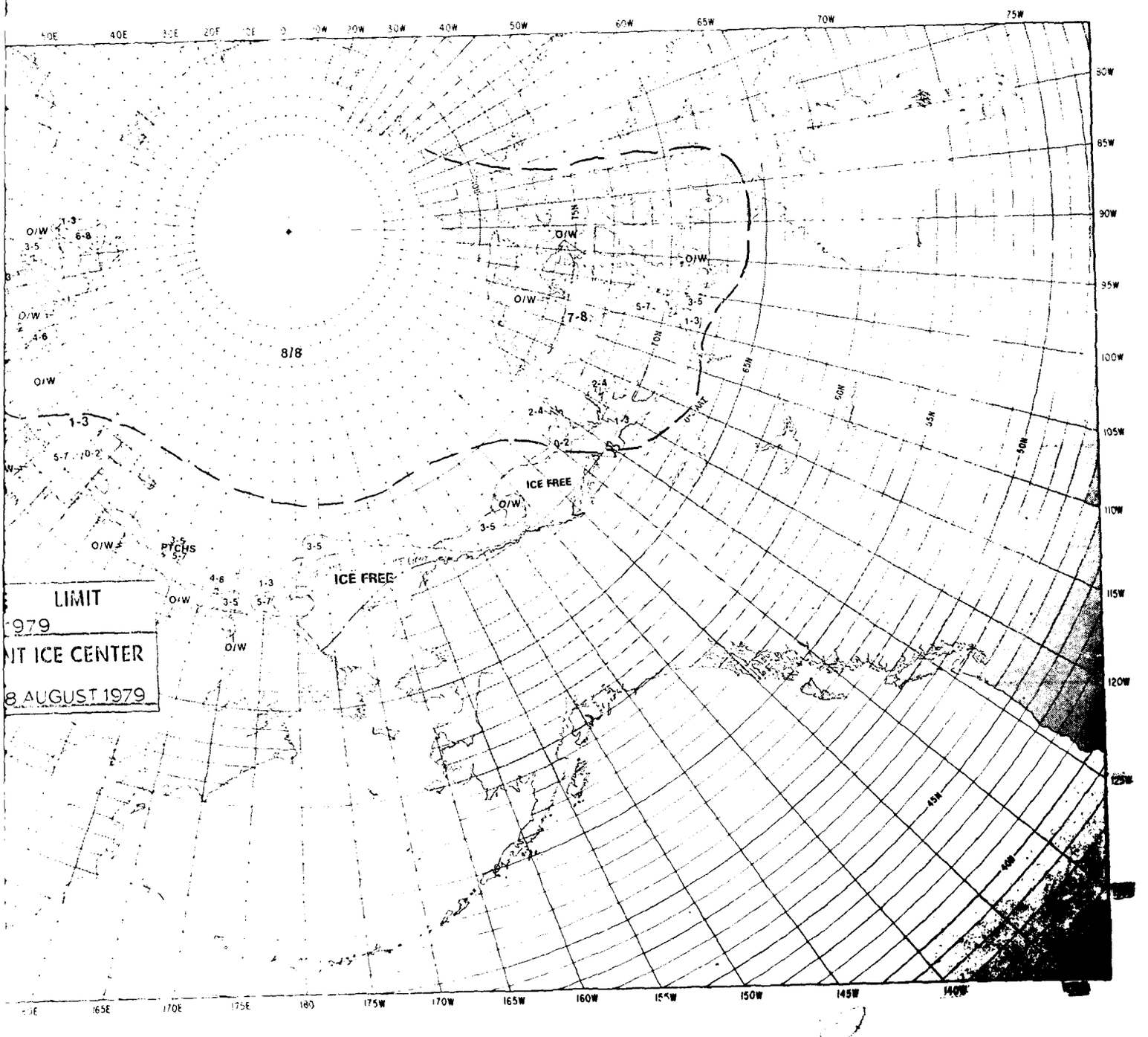

SOUTHERN ICE LIMIT
Date: 21 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 10-21 AUGUST 1979
ICE FREE
ICE LIMIT
O/W
8/8
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
90E
105E
110E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165W
170W
175W
180

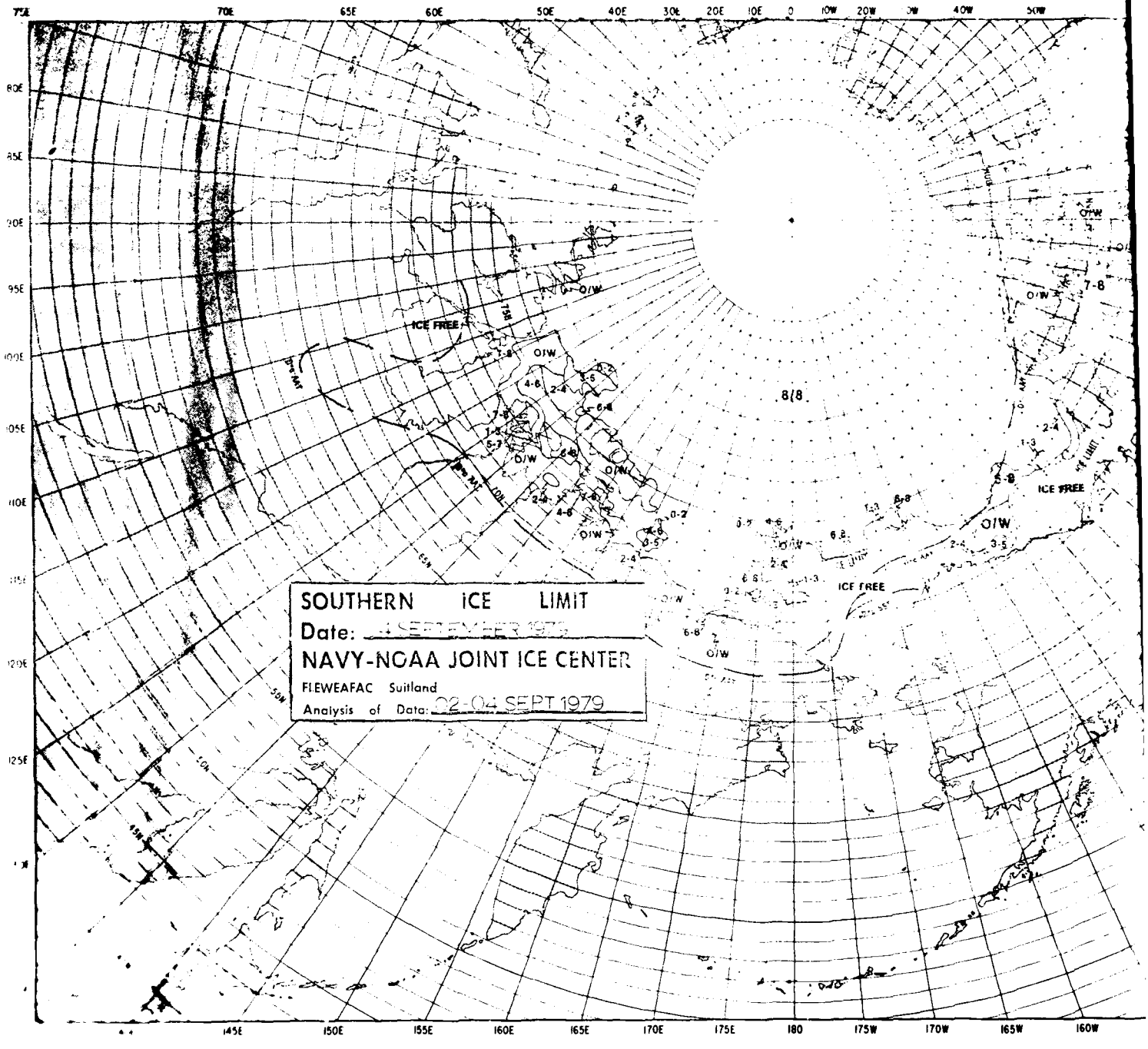


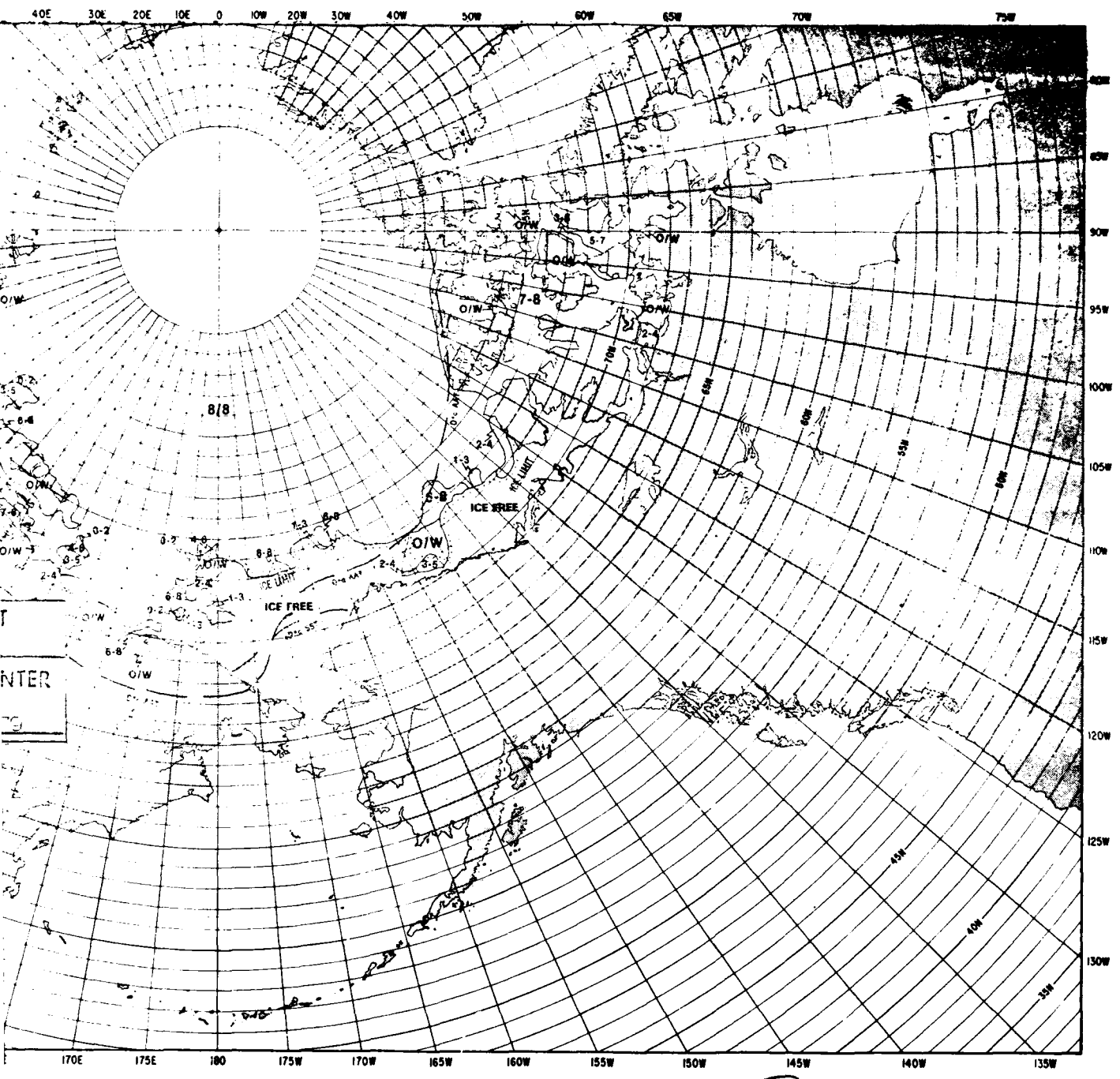
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
7-8
FAST ICE
O/W
ICE FREE
ICE LIMIT
3-5
PTCHS
7-8
0-2
1-3
5-7
3-5
2-4
1-3
65N
60N
55N
50N
45N
40N
35N

2

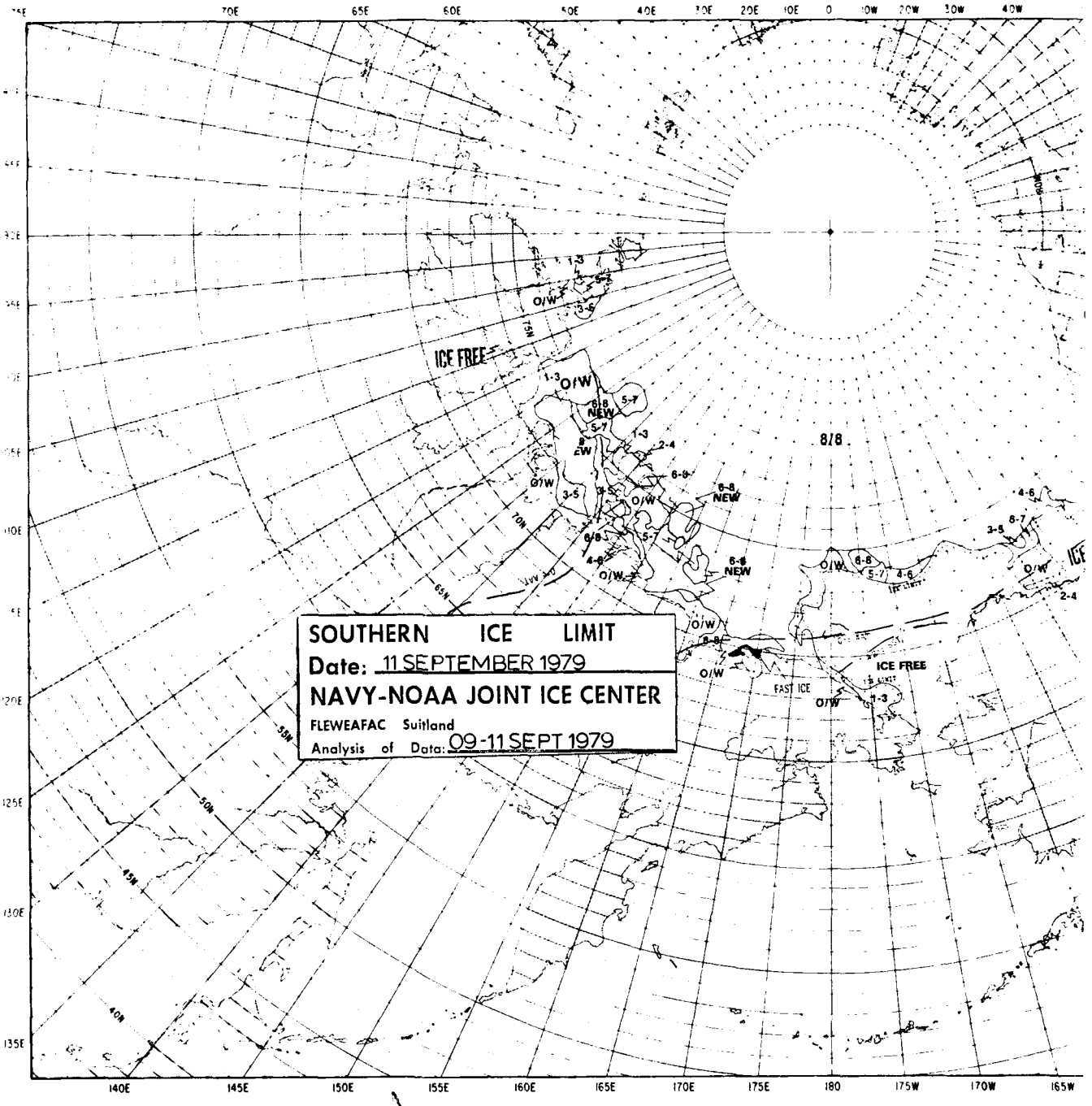

SOUTHERN ICE LIMIT
Date: 28 AUGUST 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 26-28 AUGUST 1979
ICE FREE
8/8
O/W
PTCHS
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W

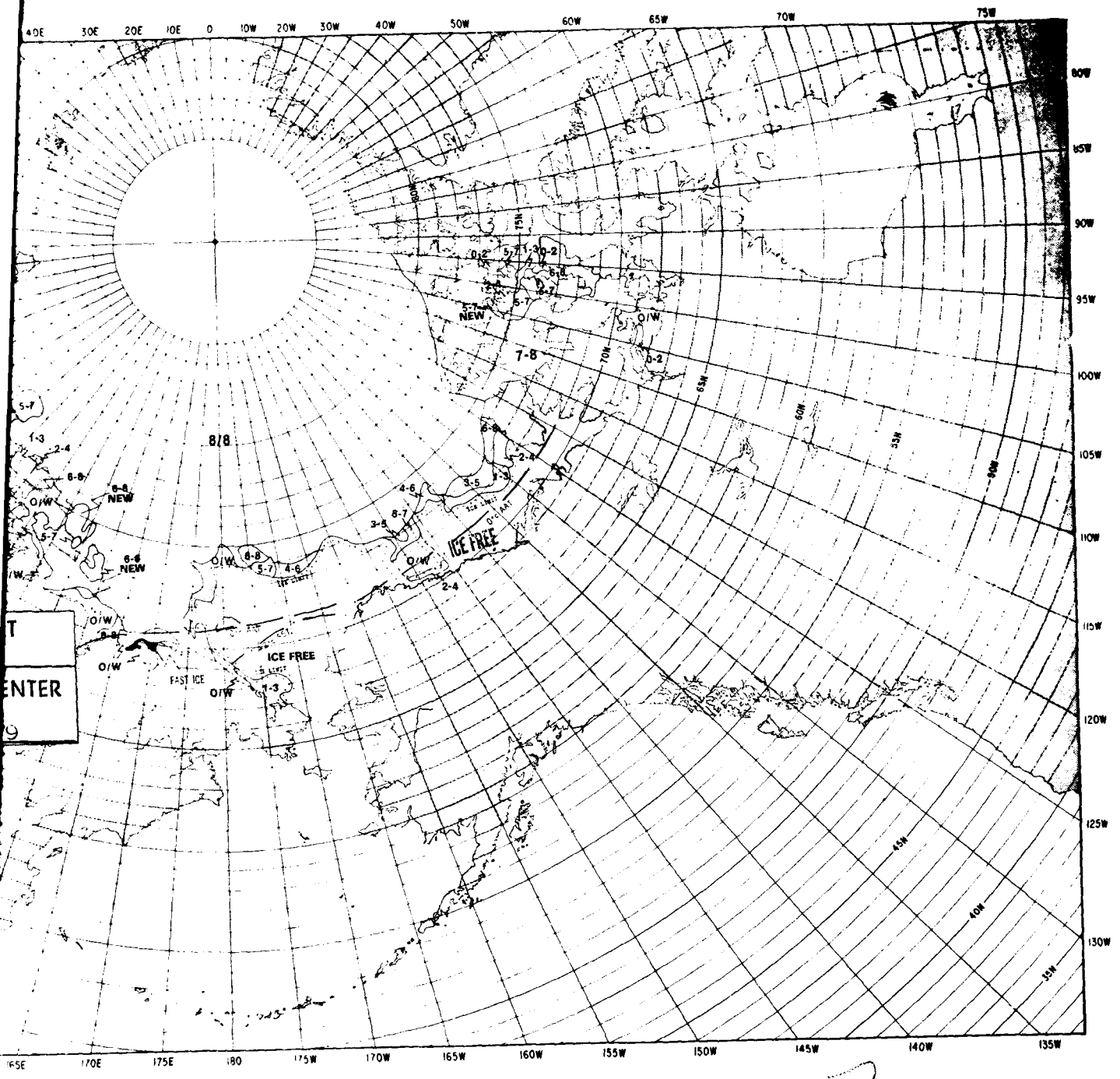

LIMIT
979
NT ICE CENTER
8 AUGUST 1979
ICE FREE
ICE FREE
PTCHS
8/8
7-8
O/W
1-3
3-5
5-7
4-6
6-8
2-4
0-2
40E
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
165E
170E
175E
180
175W
170W
165W
160W
150W
145W
140W

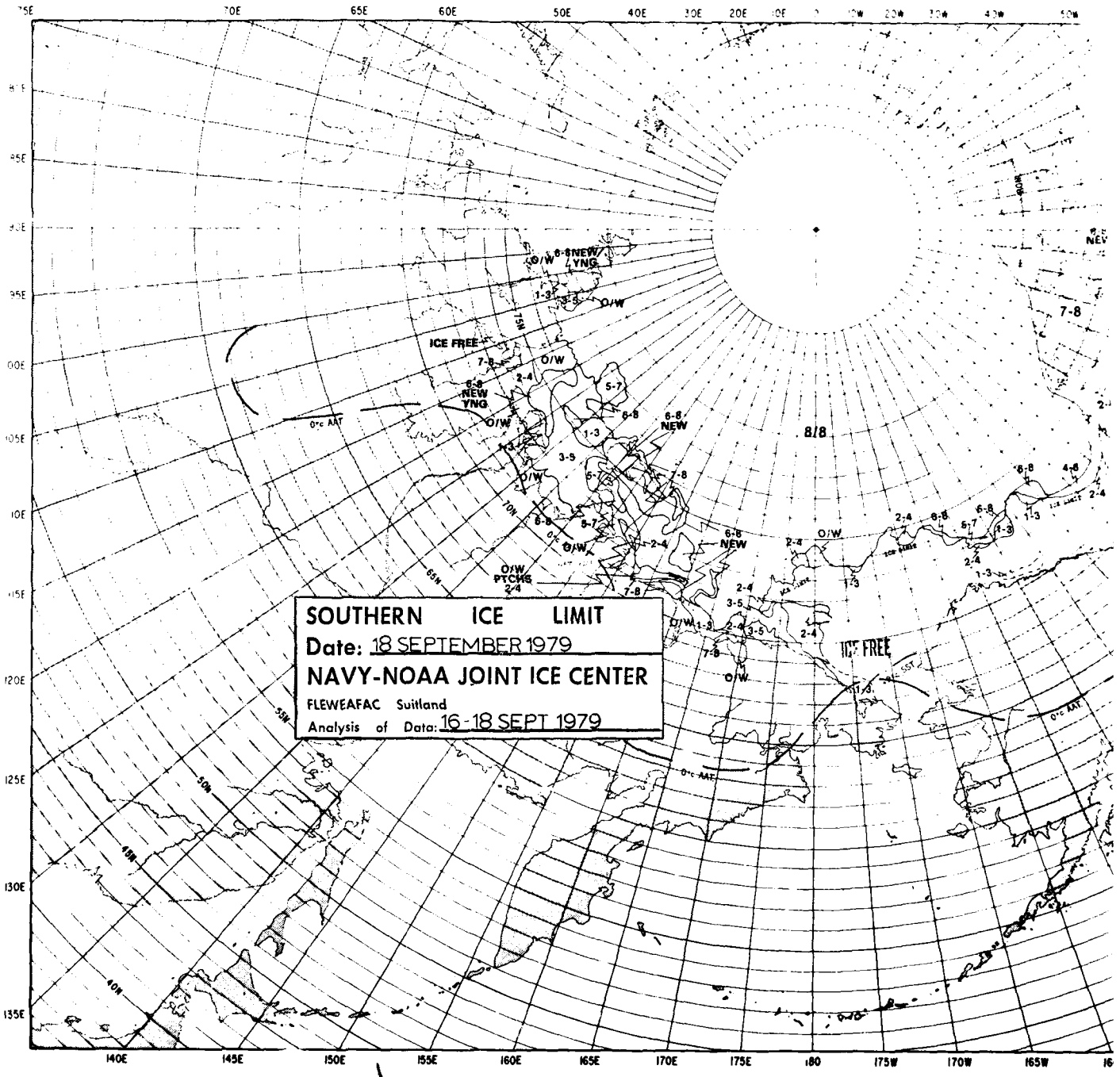

SOUTHERN ICE LIMIT
Date: 4 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 02-04 SEPT 1979
ICE FREE
O/W
8/8
7-8
5-8
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W

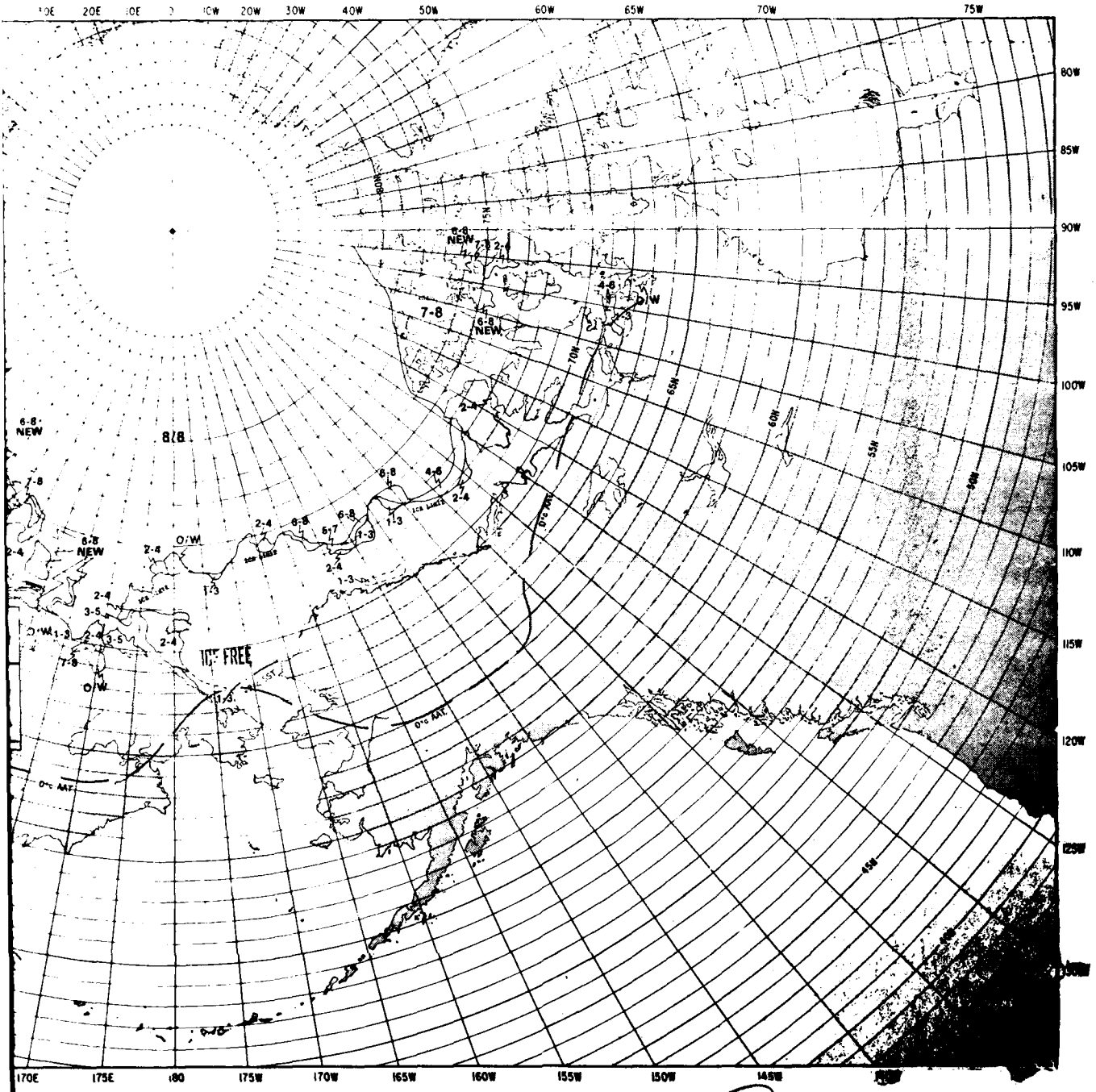

40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8
7-8
5-8
ICE FREE
ICE LIMIT
O/W
NTER

2


SOUTHERN ICE LIMIT
Date: 11 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 09-11 SEPT 1979
ICE FREE
8/8
O/W
FAST ICE
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W

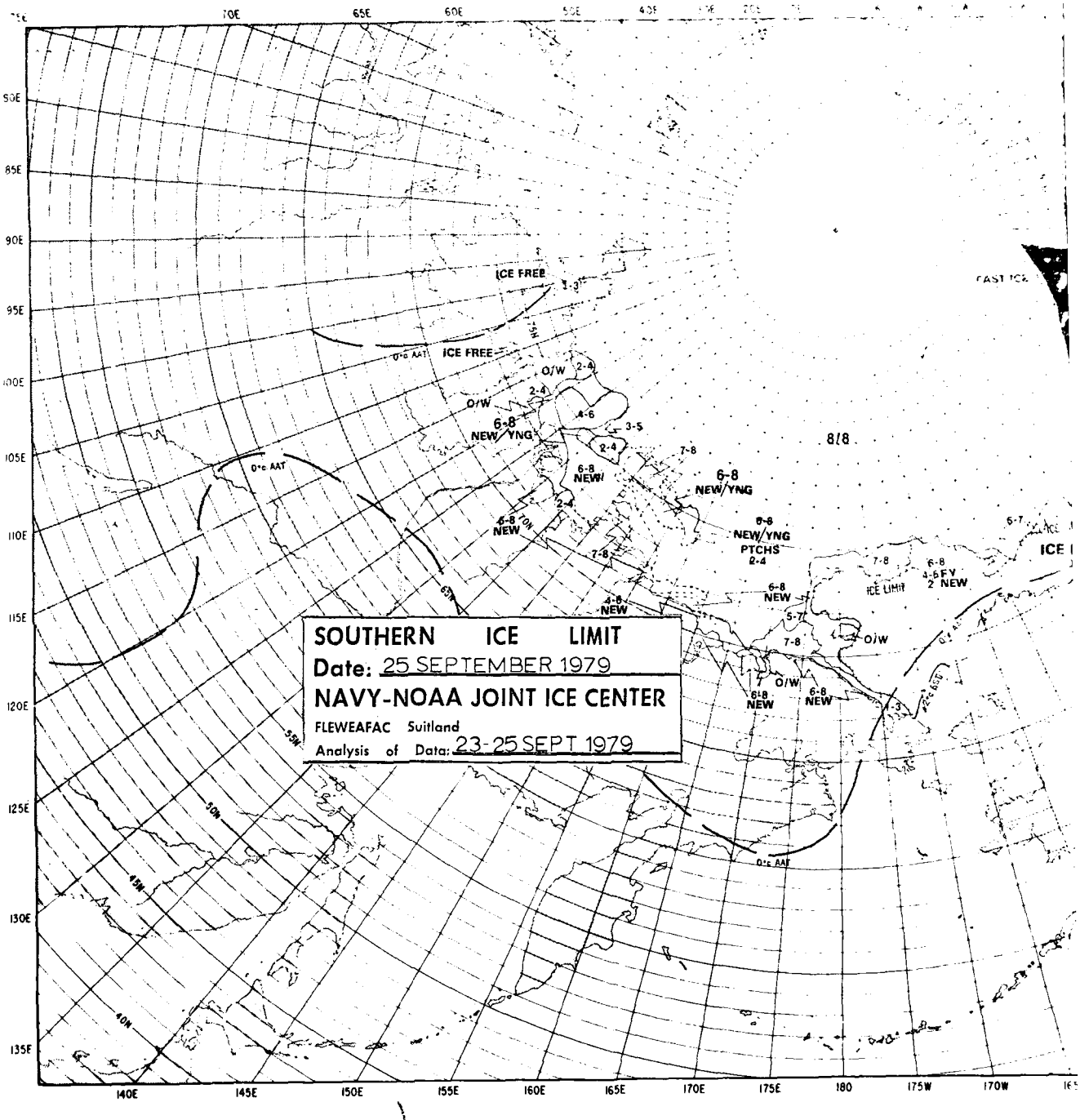

40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
145W
150W
155W
160W
165W
170W
175W
180
175E
170E
165E
80N
75N
70N
65N
60N
55N
50N
45N
40N
35N
8/8
7-8
ICE FREE
ICE FREE
FAST ICE
O/W
NEW
6-8
5-7
4-6
3-5
2-4
1-3
0-2
T
ENTER

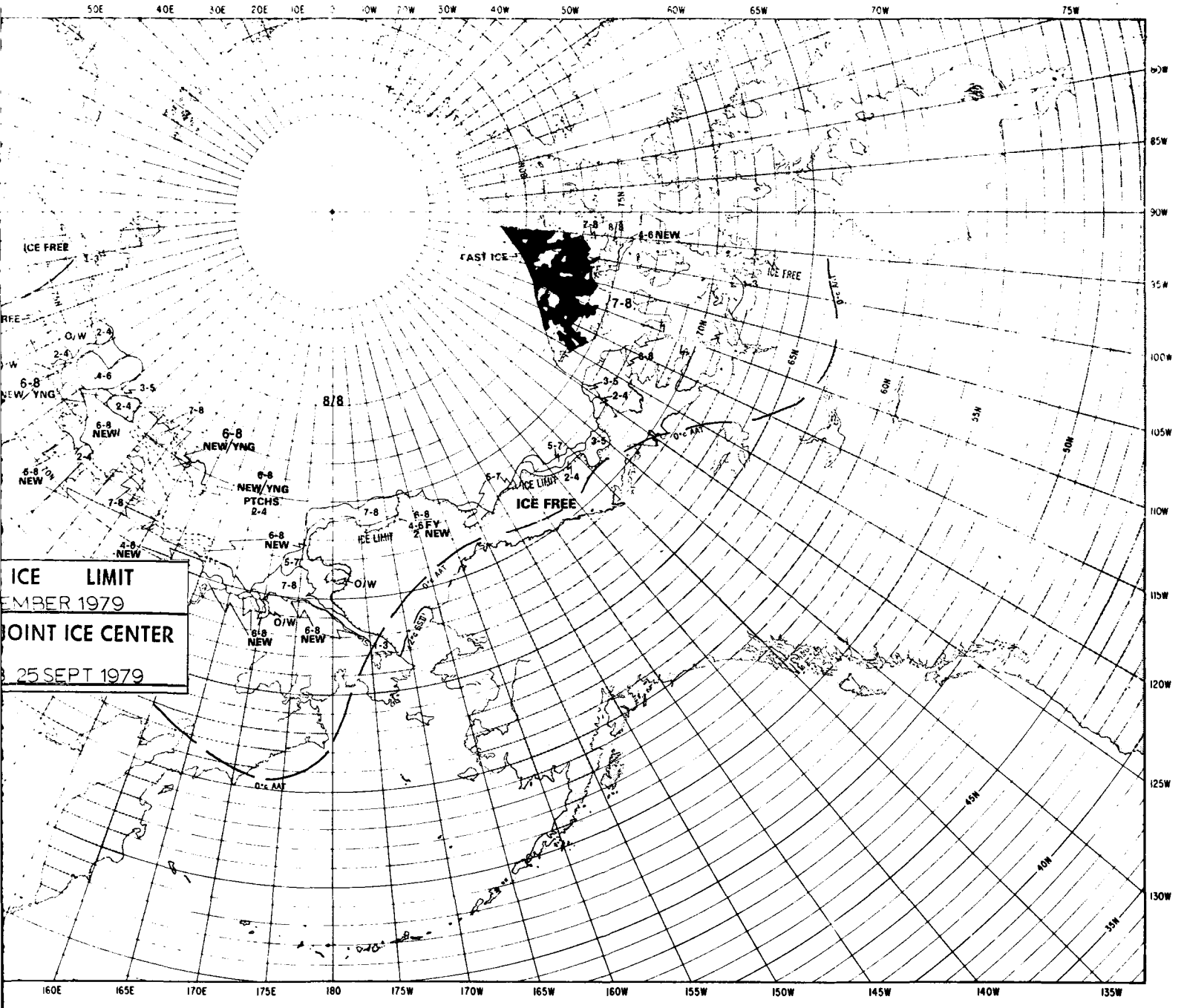

SOUTHERN ICE LIMIT
Date: 18 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 16-18 SEPT 1979
ICE FREE
ICE FREE
8/8
7-8
O/W
NEW
YNG
PTCHS
0°c AAT
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
135E
130E
125E
120E
115E
110E
105E
100E
95E
90E
85E
80E
75E
70E
65E
60E
50E
40E
30E
20E
10E
20W
30W
40W
50W



20E
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
6-8 NEW
7-8
8/8
O/W
2-4
3-5
1-3
4-6
5-7
ICE FREE

2


SOUTHERN ICE LIMIT
Date: 25 SEPTEMBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 23-25 SEPT 1979
ICE FREE
O/W
6-8 NEW/YNG
6-8 NEW
6-8 NEW/YNG PTCHS 2-4
ICE LIMIT
70E
65E
60E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W


ICE LIMIT
EMBER 1979
JOINT ICE CENTER
25 SEPT 1979
ICE FREE
FAST ICE
ICE LIMIT
ICE FREE
ICE FREE
ICE LIMIT
6-8 NEW/YNG
6-8 NEW/YNG PTCHS 2-4
6-8 NEW
4-6 NEW
4-6 FY 2 NEW
O/W
8/8
7-8
0°c AAT
50E
40E
30E
20E
10E
10W
20W
30W
40W
50W
60W
65W
70W
75W
85W
90W
95W
100W
105W
110W
115W
120W
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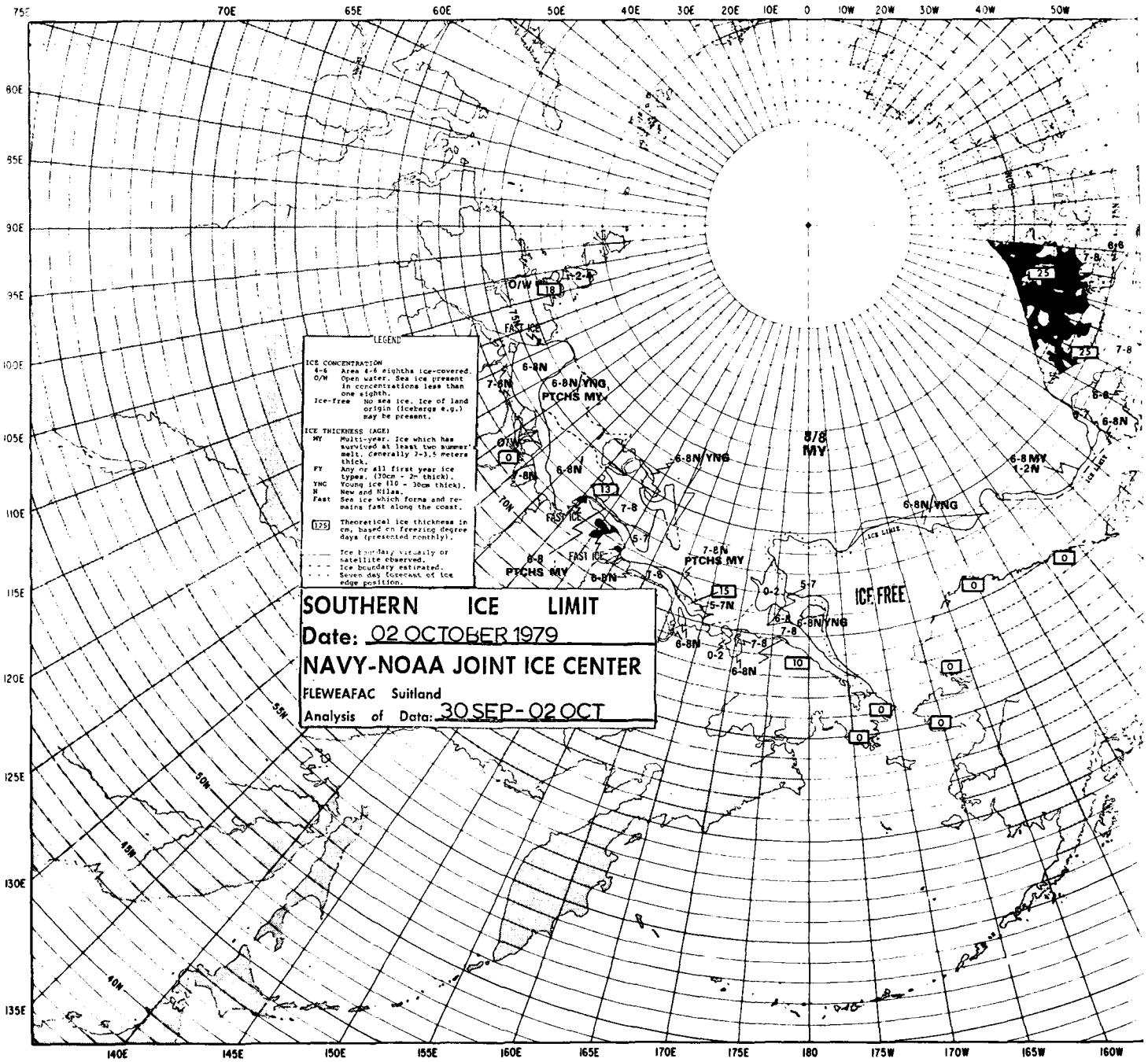
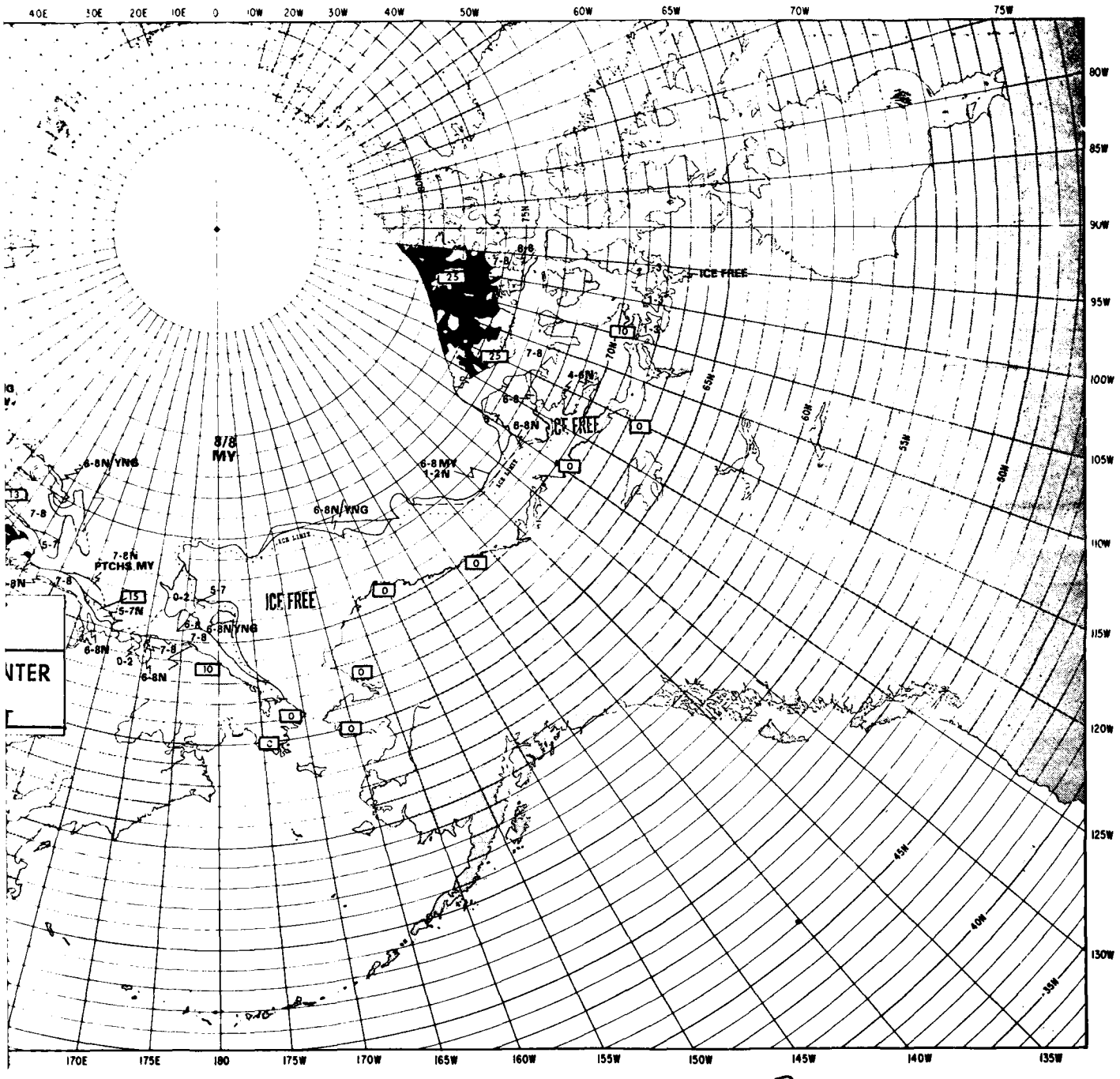
150W
145W
140W
135W


SOUTHERN ICE LIMIT
Date: 02 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 30 SEP - 02 OCT
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
FAST ICE
PTCHS MY
6-8N/YNG
8/8 MY
ICE LIMIT
75N
70N
55N
50N
45N
40N
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W



40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
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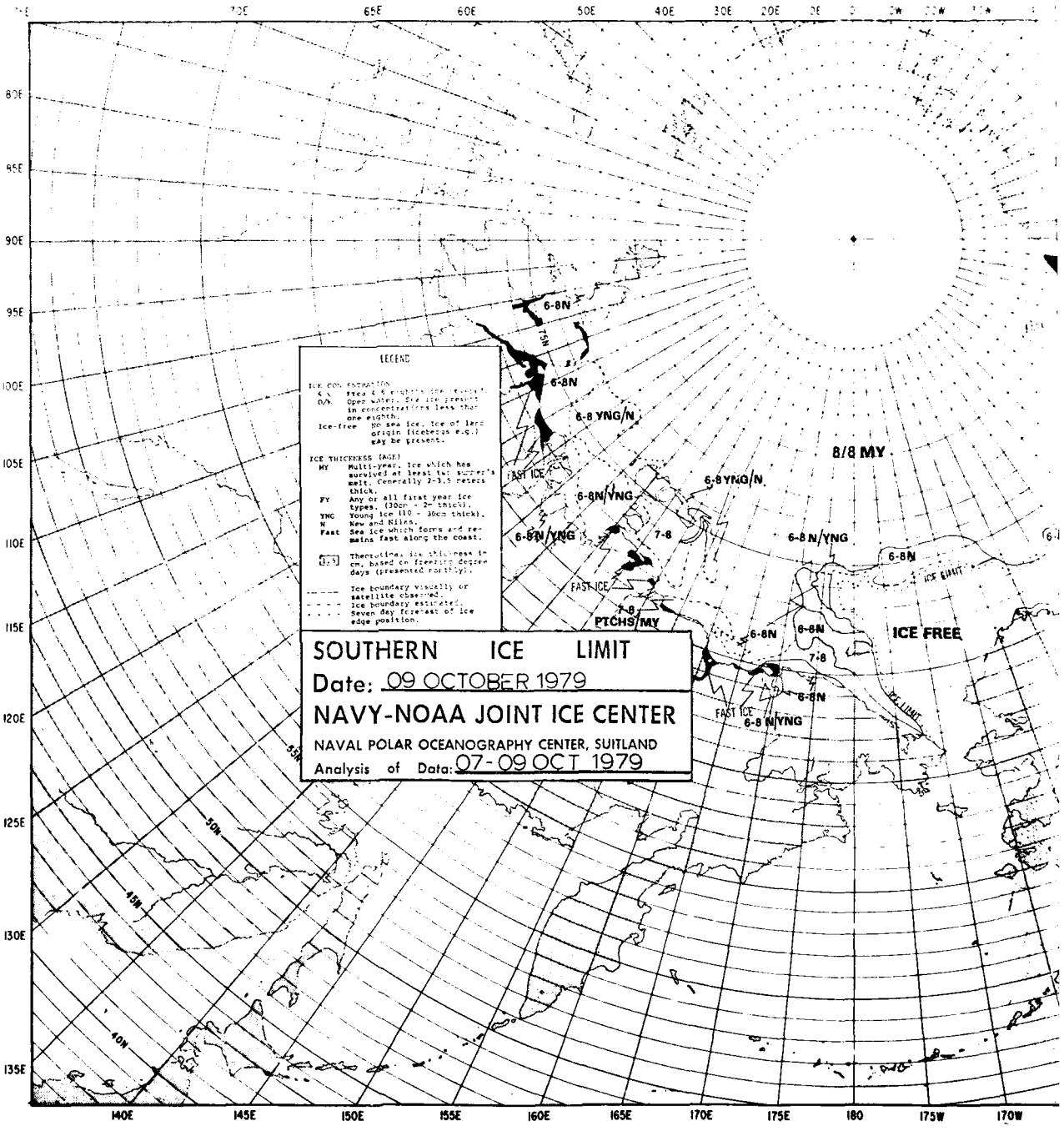
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
ICE FREE
ICE FREE
ICE FREE
8/8 MY
6-8N/YNG
6-8N/YNG
6-8N/YNG
7-8N PTCHS MY
6-8N
6-8N
6-8N
6-8MY 1-2N
4-6N
7-8
5-7
0-2
5-7N
NTER

2


LEGEND
ICE CON ESTIMATION
Ice-free
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
Thermodine. Ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 09 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 07-09 OCT 1979
6-8N
6-8 YNG/N
8/8 MY
FAST ICE
6-8N/YNG
7-8
PTCHS/MY
ICE FREE
ICE LIMIT
75N
55N
50N
45N
40N
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
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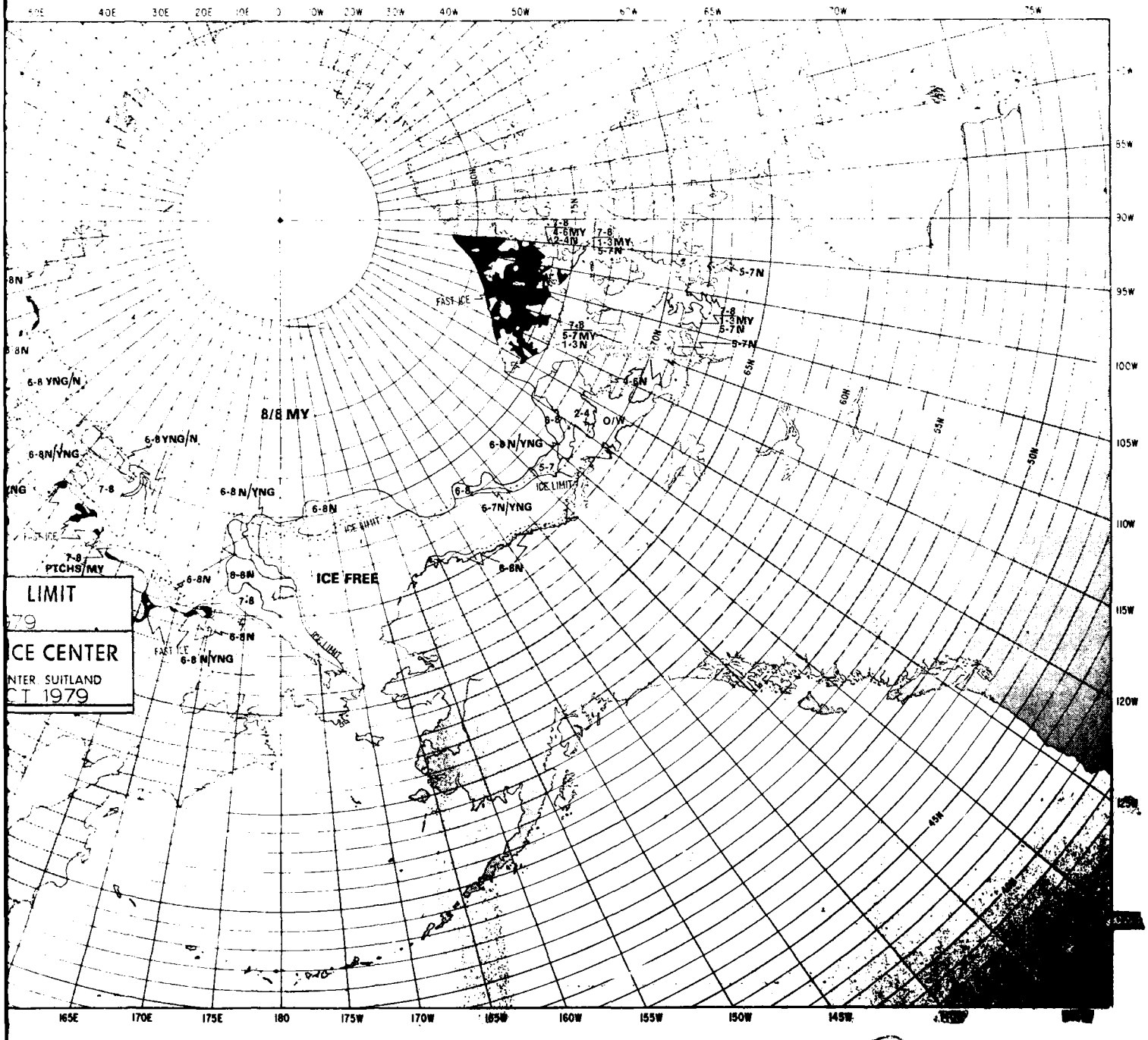
165E
170E
175E
180
175W
170W



LIMIT
79
ICE CENTER
NTER SUITLAND
CT 1979
8/8 MY
ICE FREE
FAST ICE
ICE LIMIT
6-8 YNG/N
6-8N/YNG
6-8N
6-7N/YNG
7-8
PTCHS/MY
O/W
5-7N
5-7MY
1-3N
1-3MY
2-4N
4-6MY
2-4
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
65W
70W
75W
85W
90W
95W
100W
105W
110W
115W
120W
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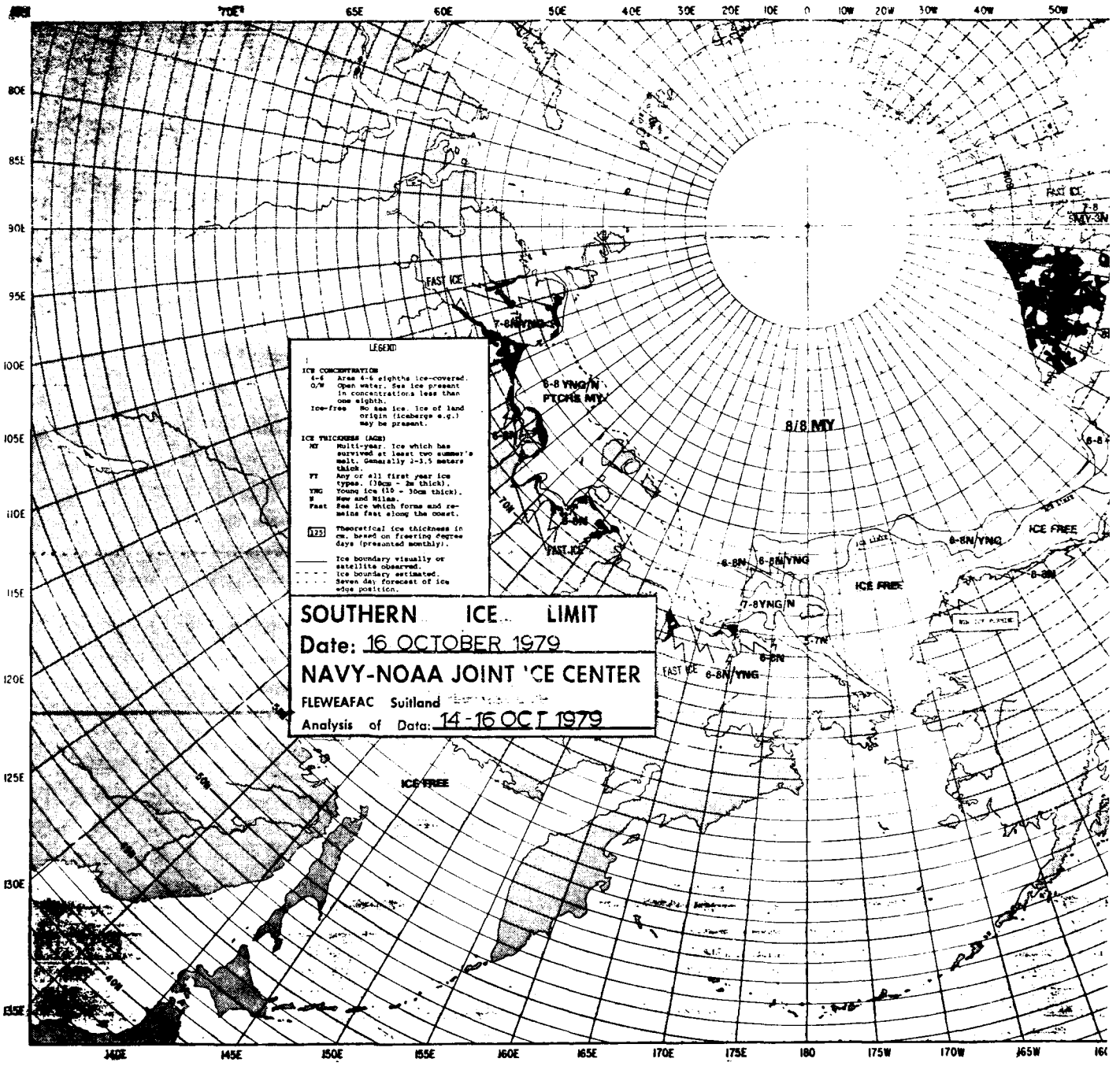
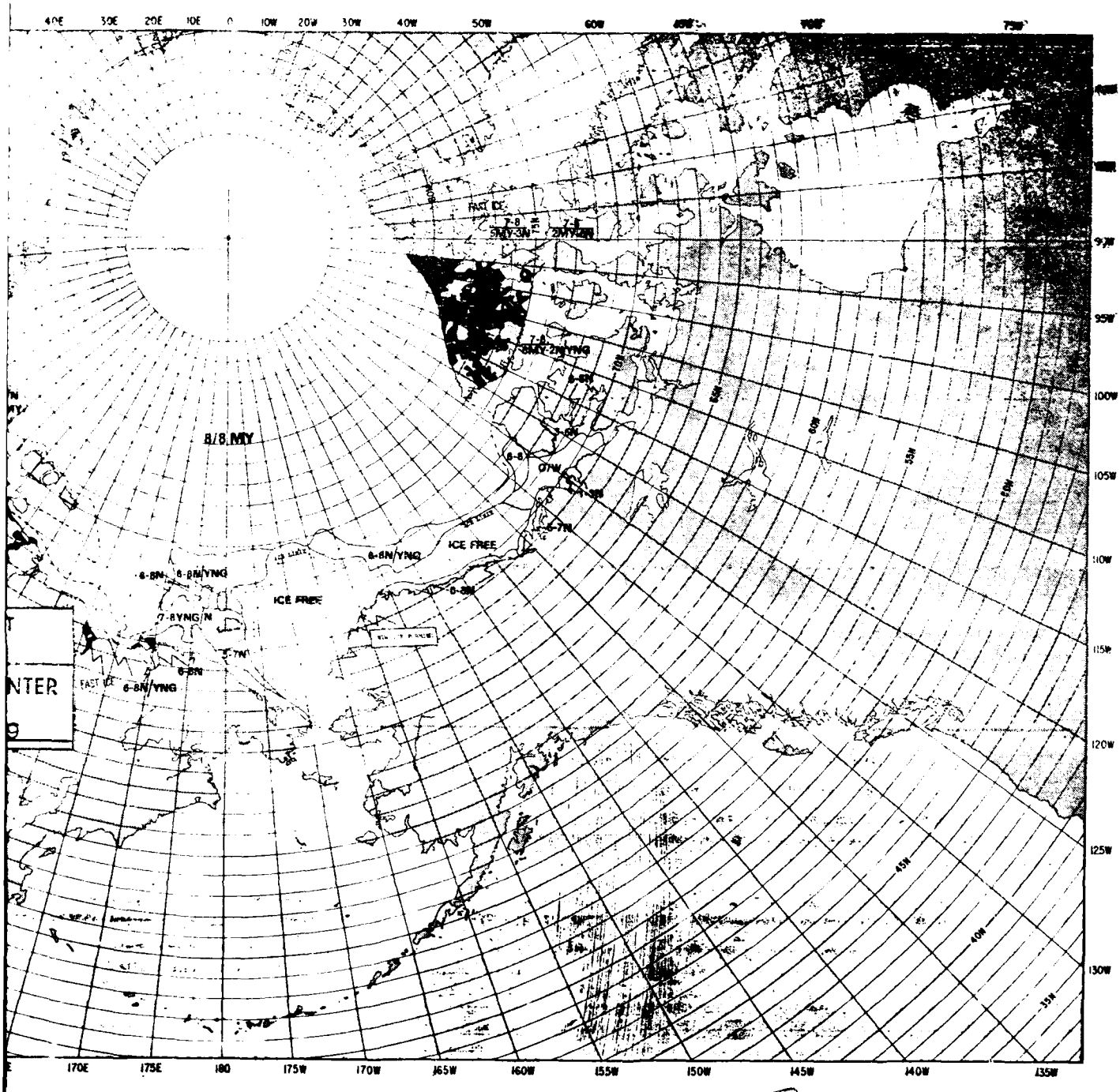
165W
160W
155W
150W
145W



LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm. based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 16 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 14-16 OCT 1979
FAST ICE
7-8N/YNG
6-8 YNG/N
PTCHS MY
8/8 MY
6-8N
6-8N/YNG
7-8YNG/N
ICE FREE
70N
50N
40N
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W



40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
75W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
FAST ICE
7-8
5MY-3N
7-8
2MY-2N
7-8
8MY-2N/YNG
8/8 MY
6-8
6-7N
ICE FREE
6-8N/YNG
6-8N
6-8N/YNG
ICE FREE
7-8YNG/N
6-8N
6-8N/YNG
FAST ICE
NTER

2

AD-A086 375 NAVAL POLAR OCEANOGRAPHY CENTER WASHINGTON DC F/G 8/12
EASTERN-WESTERN ARCTIC SEA ICE ANALYSIS.(U)
1979

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3 OF 3
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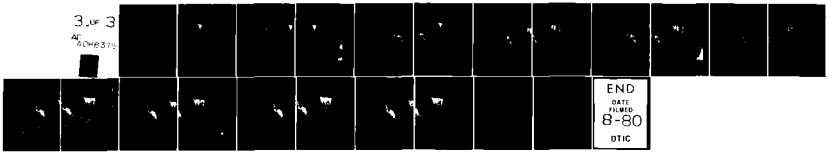

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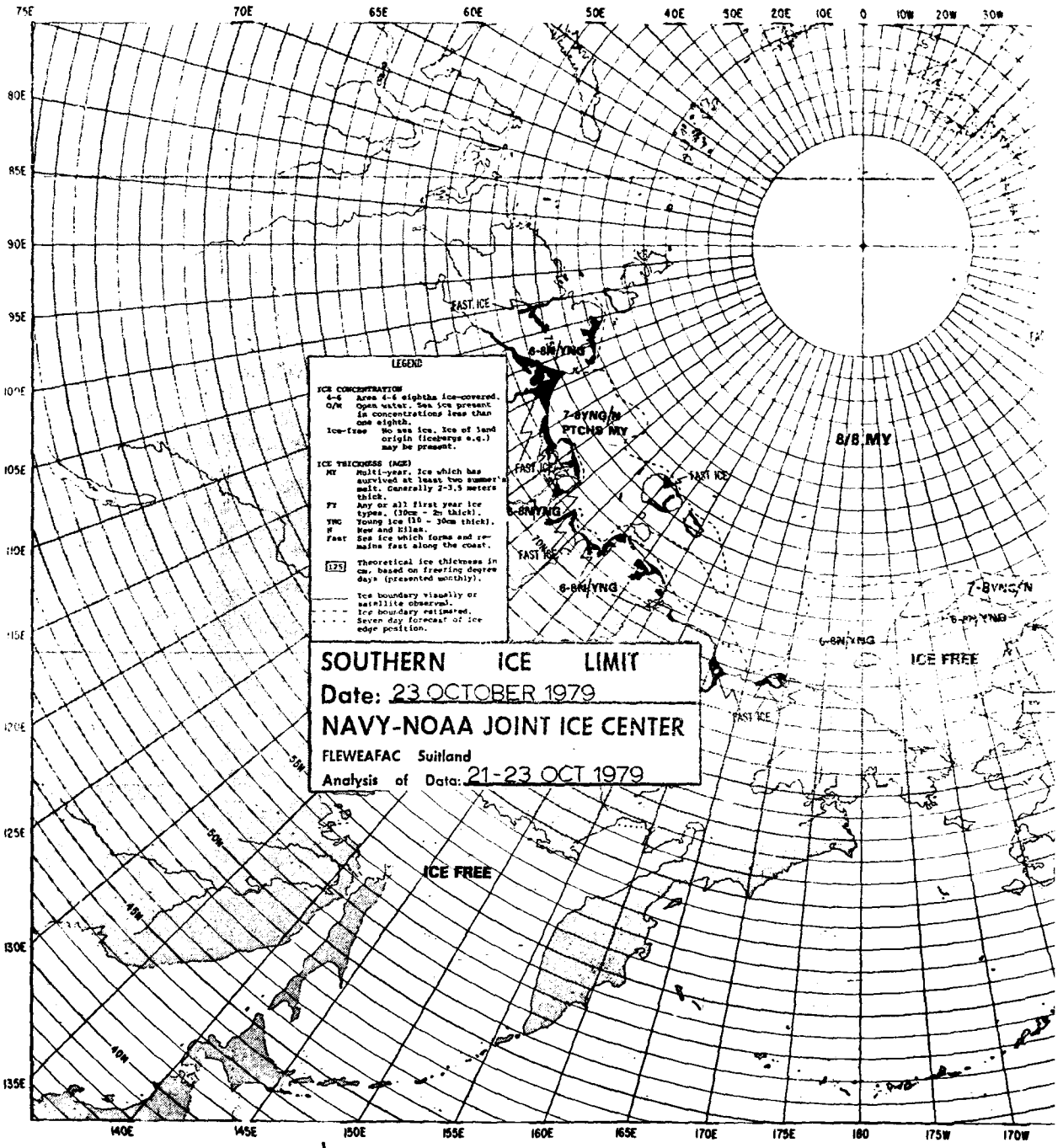
8-80
DTIC


LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
175 Theoretical ice thickness in cm. based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 23 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
FLEWEAFAC Suitland
Analysis of Data: 21-23 OCT 1979
FAST ICE
8-8N/YNG
7-8YNG/N
PTCHS MY
8/8 MY
6-8N/YNG
7-8YNG/N
ICE FREE
ICE FREE
50N
45N
40N
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
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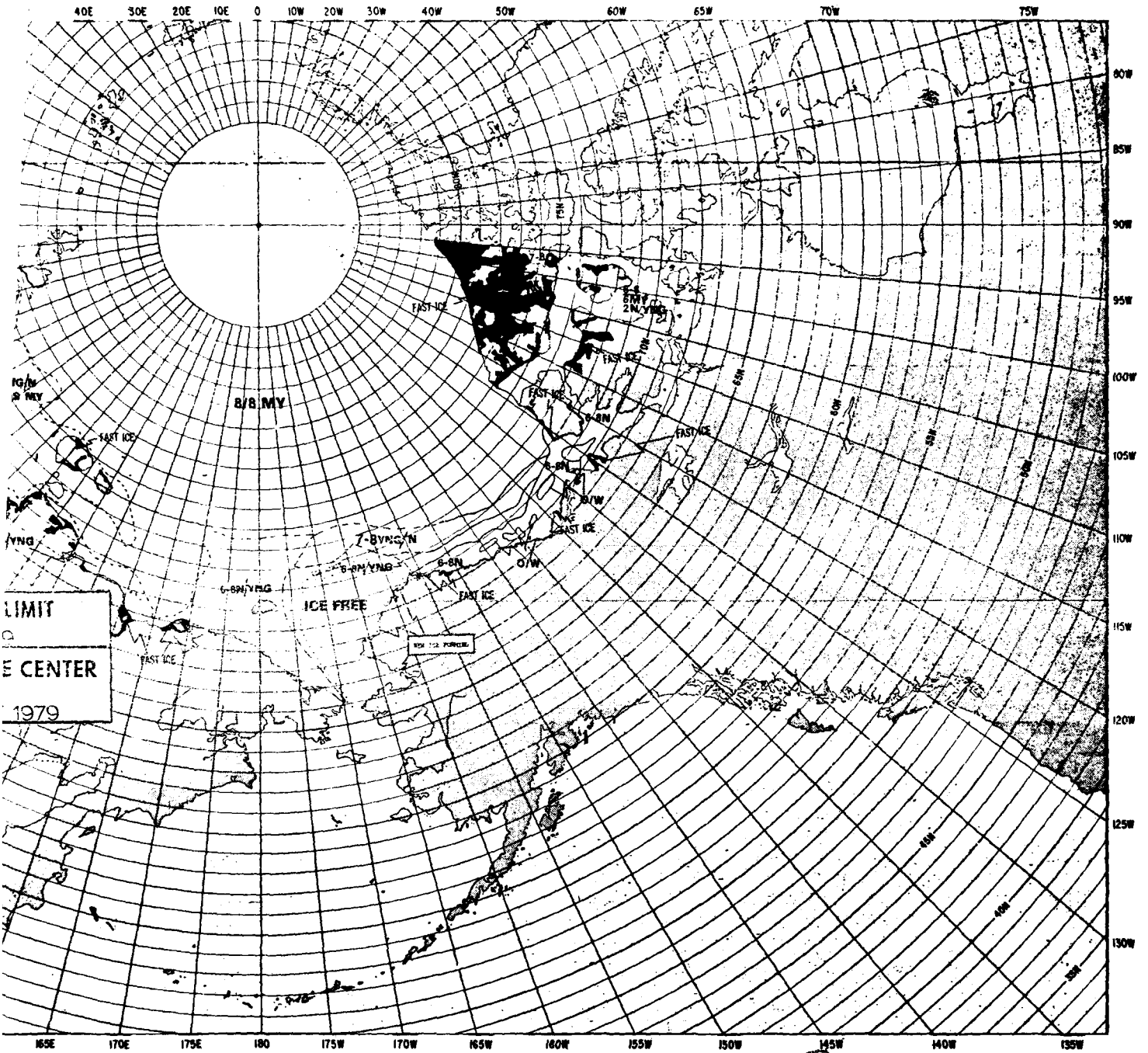
170E
175E
180
175W
170W



40E
30E
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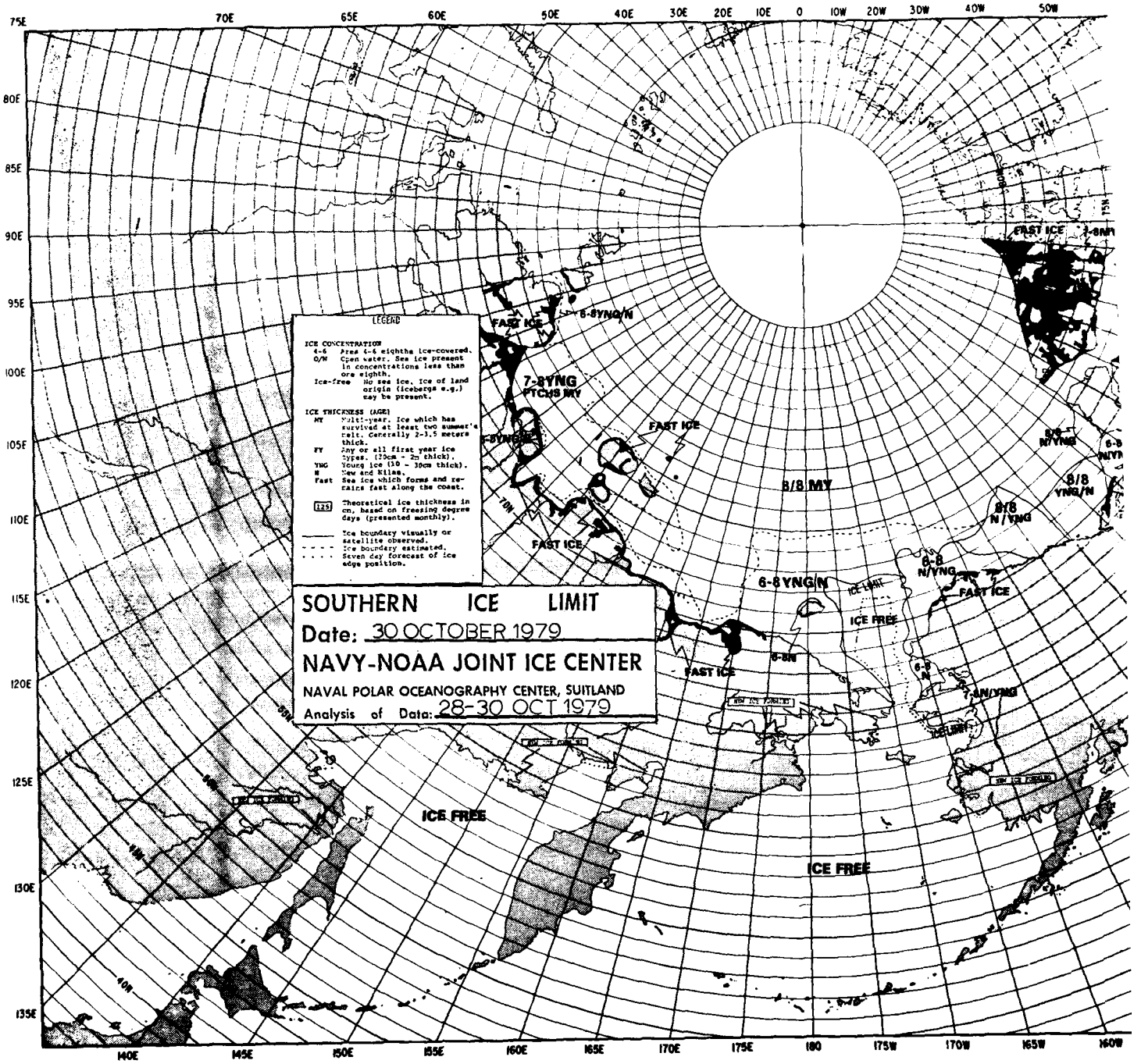
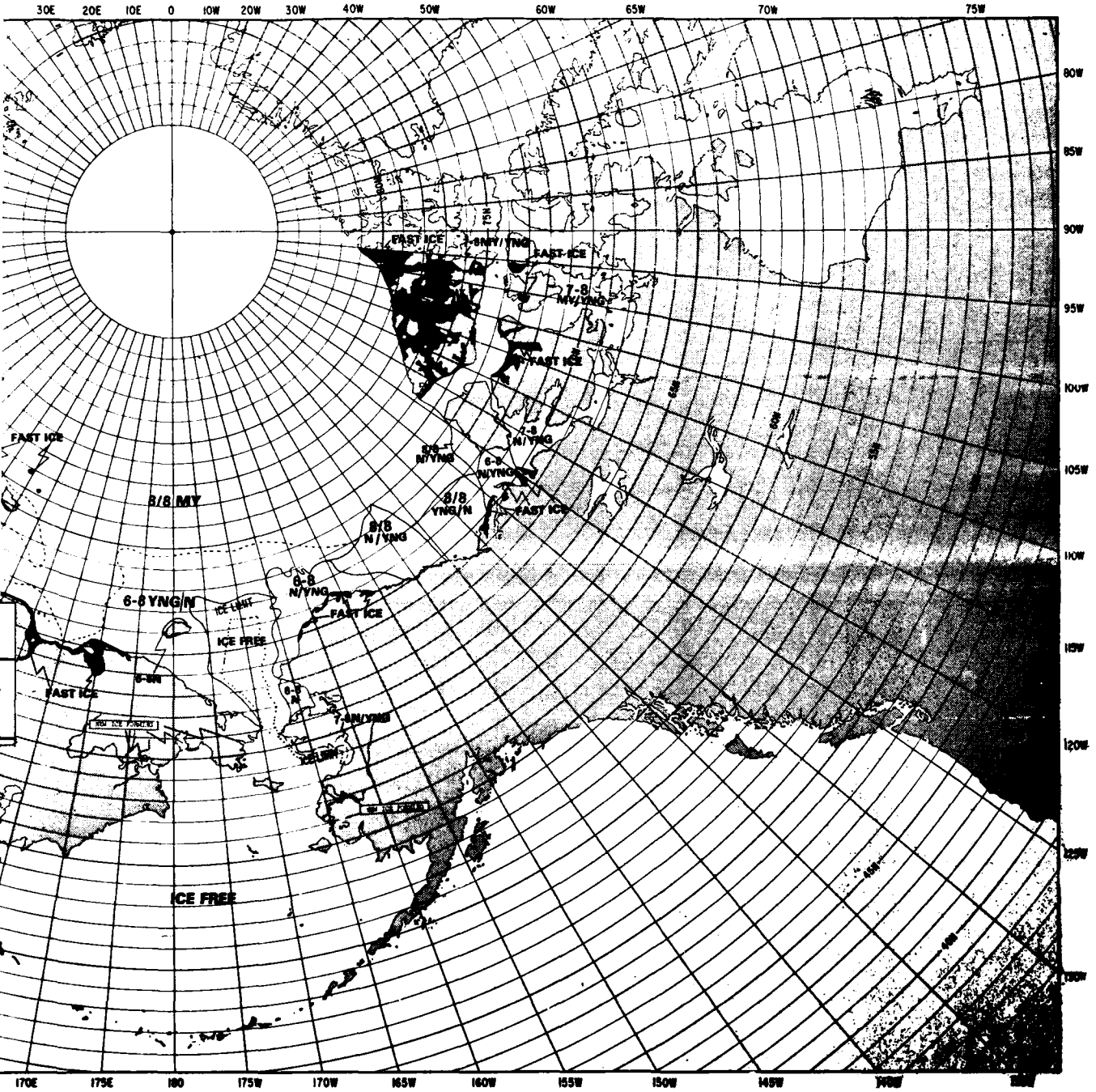
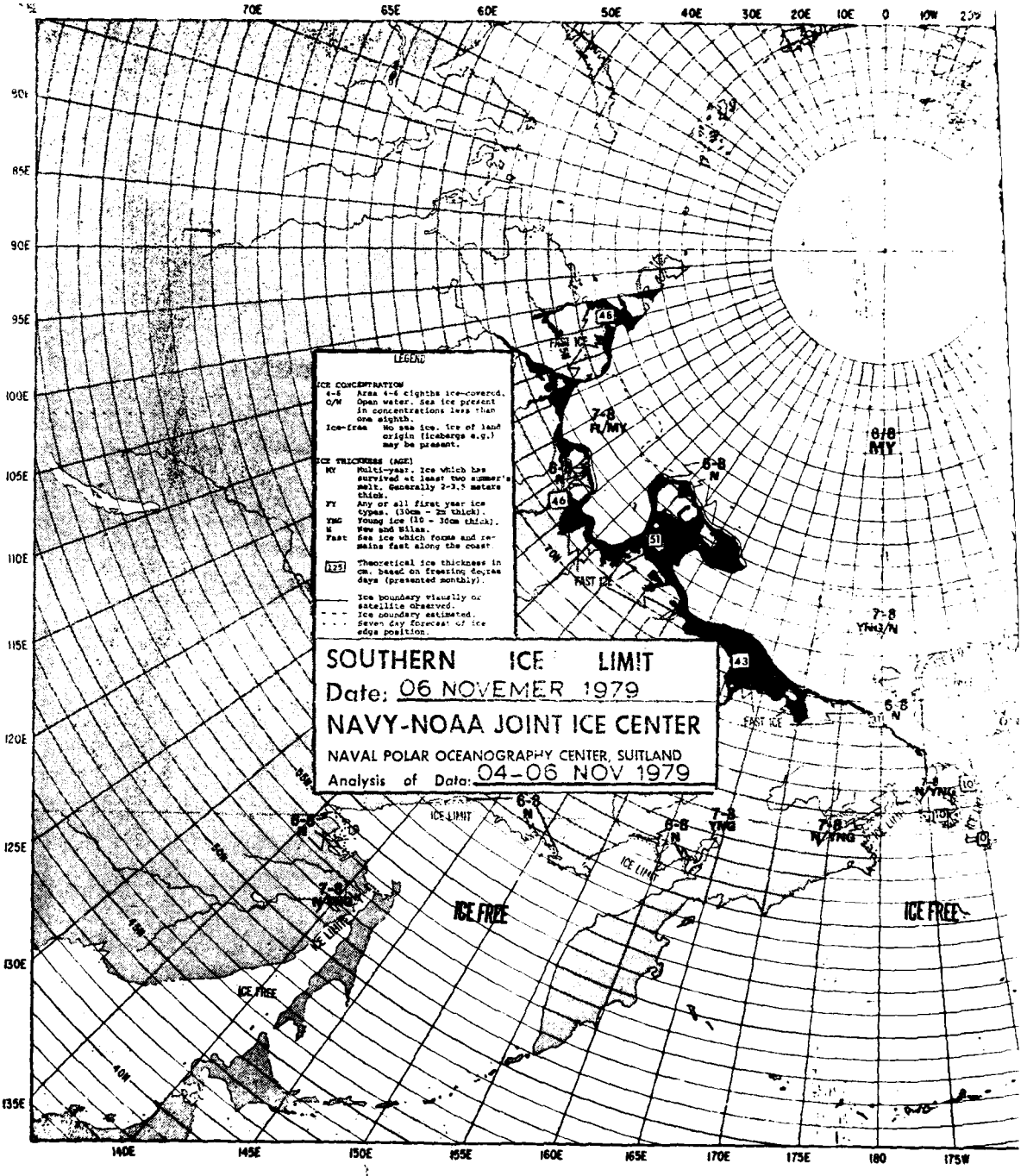
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
8/8 MY
FAST ICE
6-8N
O/W
7-8YNG/N
6-8N/YNG
ICE FREE
LIMIT
E CENTER
1979

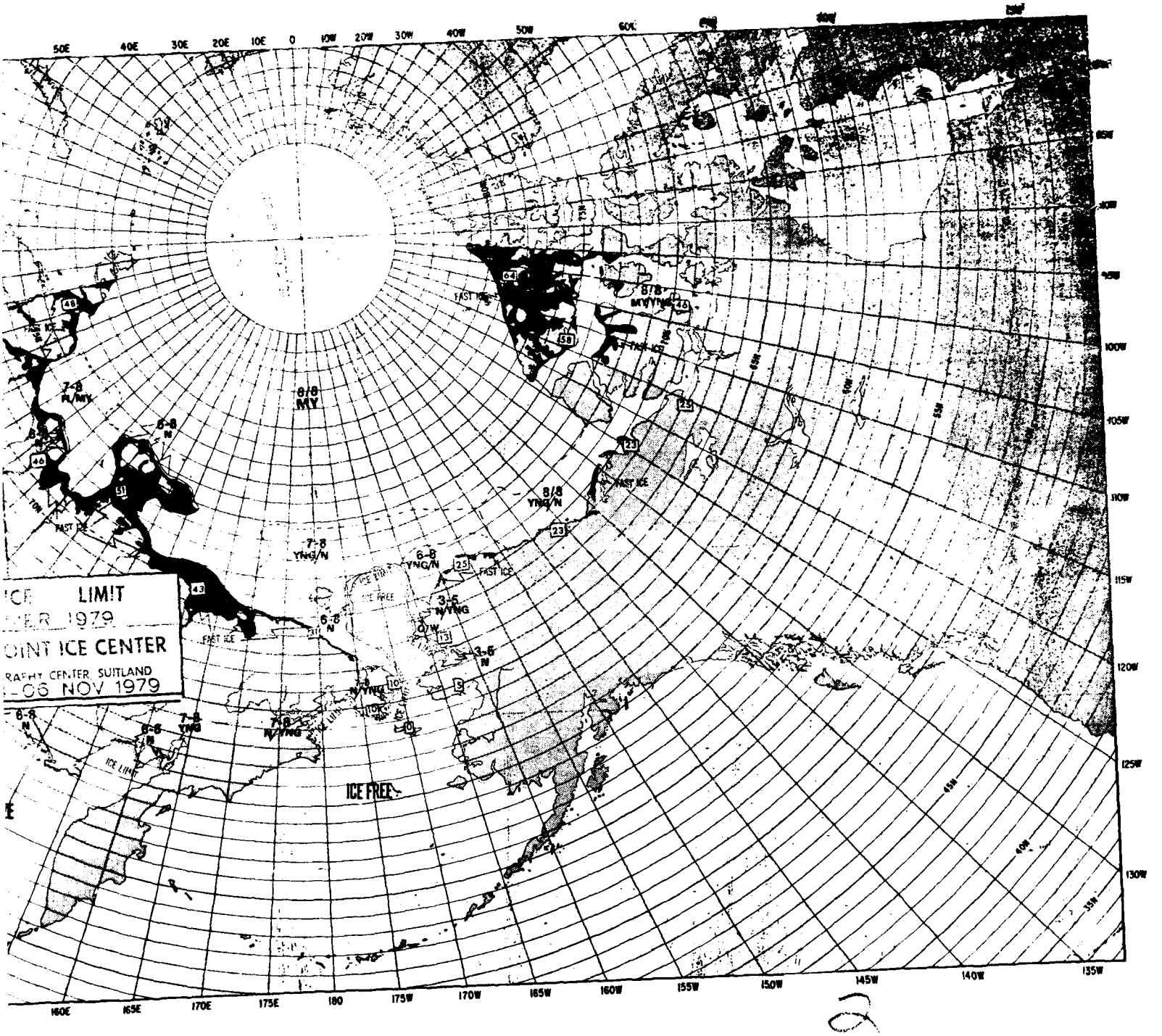

SOUTHERN ICE LIMIT
Date: 30 OCTOBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 28-30 OCT 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
FAST ICE
6-8YNG/N
7-8YNG
PTCHS MY
8/8 MY
8/8 N/YNG
8/8 YNG/N
6-8 N/YNG
6-8 YNG/N
ICE LIMIT
ICE FREE
6-8N
7-8N/YNG
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W


30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
FAST ICE
7-8NMY/YNG
7-8 MY/YNG
FAST ICE
FAST ICE
7-8 N/YNG
6-8 N/YNG
8/8 YNG/N
FAST ICE
8/8 MY
8/8 N/YNG
6-8 N/YNG
FAST ICE
6-8YNG/N
ICE LIMIT
ICE FREE
FAST ICE
6-8N
6-8 N
7-8N/YNG
ICE LIMIT
ICE FREE

2



SOUTHERN ICE LIMIT
Date: 06 NOVEMER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 04-06 NOV 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm. based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
ICE FREE
ICE LIMIT
FAST ICE
7-8 FY/MY
6-8 N
6/8 MY
7-8 YNG/N
7-8 N/YNG
7-8 YNG


ICE LIMIT
ER 1979
OINT ICE CENTER
RAPHY CENTER SUITLAND
-06 NOV 1979
ICE FREE
FAST ICE
8/8 MY
8/8 MY/YNG
8/8 YNG/N
7-8 YNG/N
6-8 YNG/N
3-5 N/YNG
3-6 N
6-8 N
7-8 N/YNG
7-8 YNG
7-8 FI/MY
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
60W
160E
165E
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
130W
125W
120W
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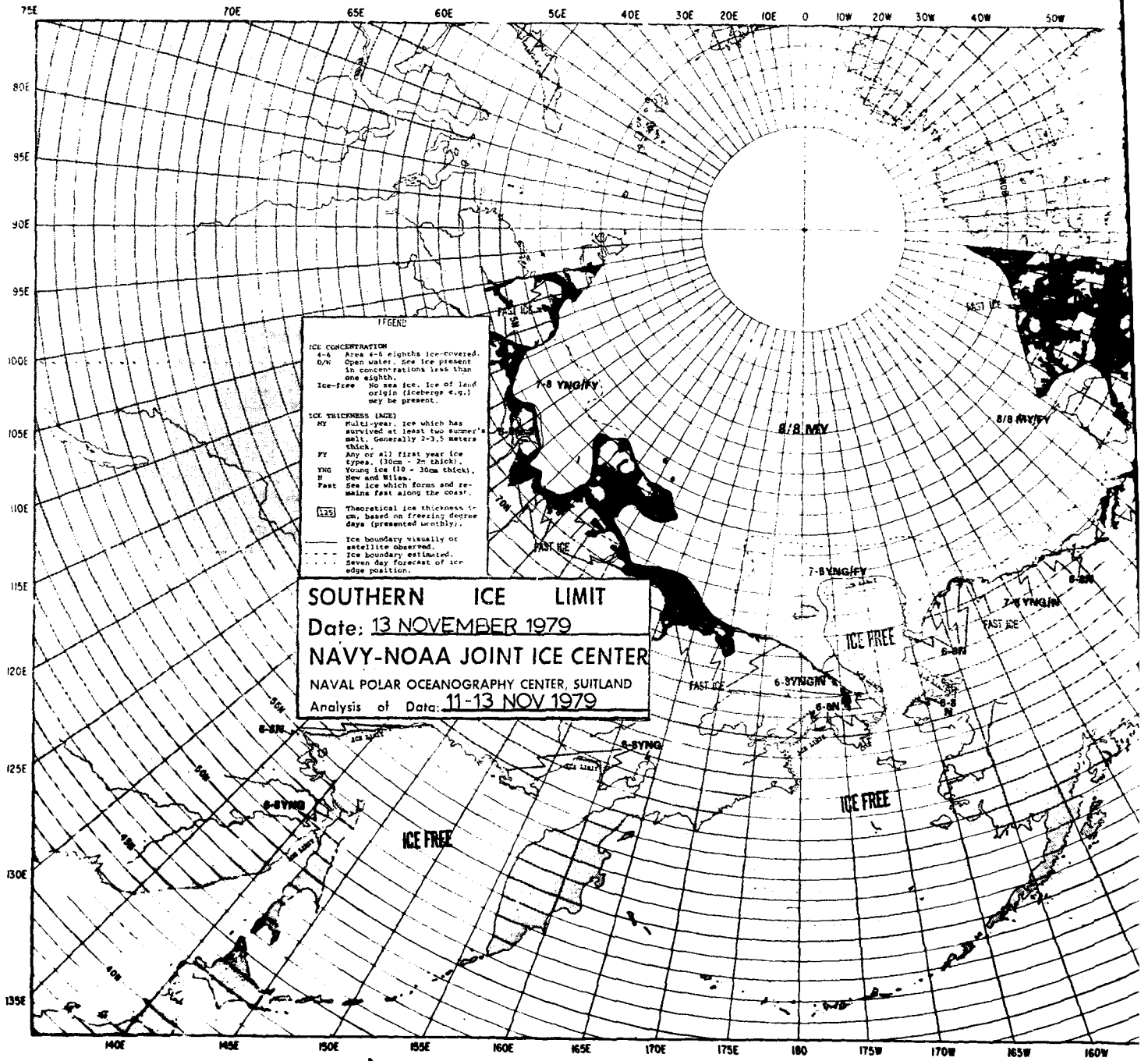
105W
100W



SOUTHERN ICE LIMIT
Date: 13 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 11-13 NOV 1979
LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
FAST ICE
7-8 YNG/FY
8/8 MY
8/8 MY/FY
7-8 YNG/FY
7-8 YNG/N
6-8N
6-8YNG/N
6-8N
6-8YNG
6-8YNG
ICE FREE
ICE FREE
ICE FREE
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
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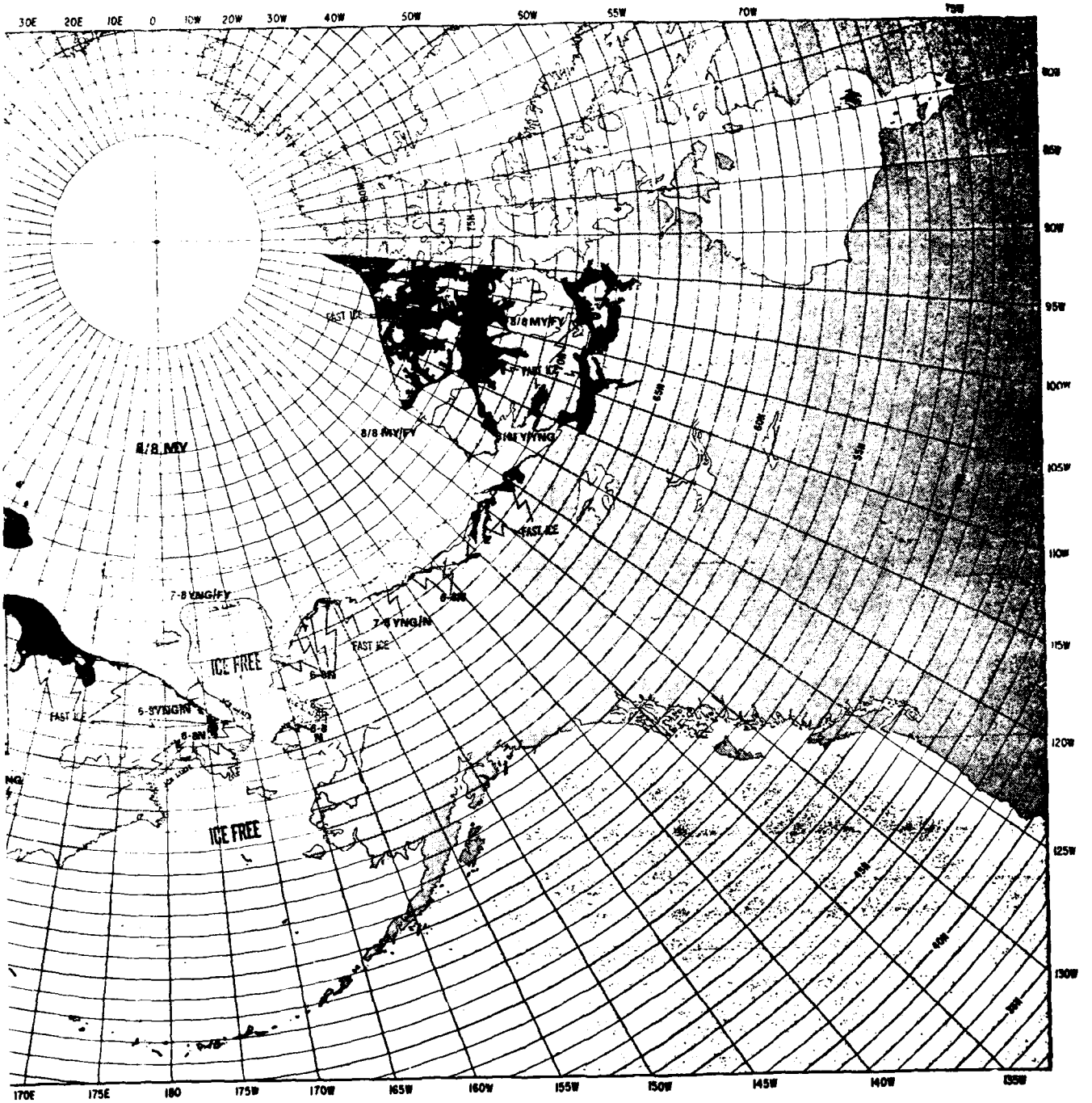
175W
170W
165W
160W



30E
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40W
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70W
75W
80W
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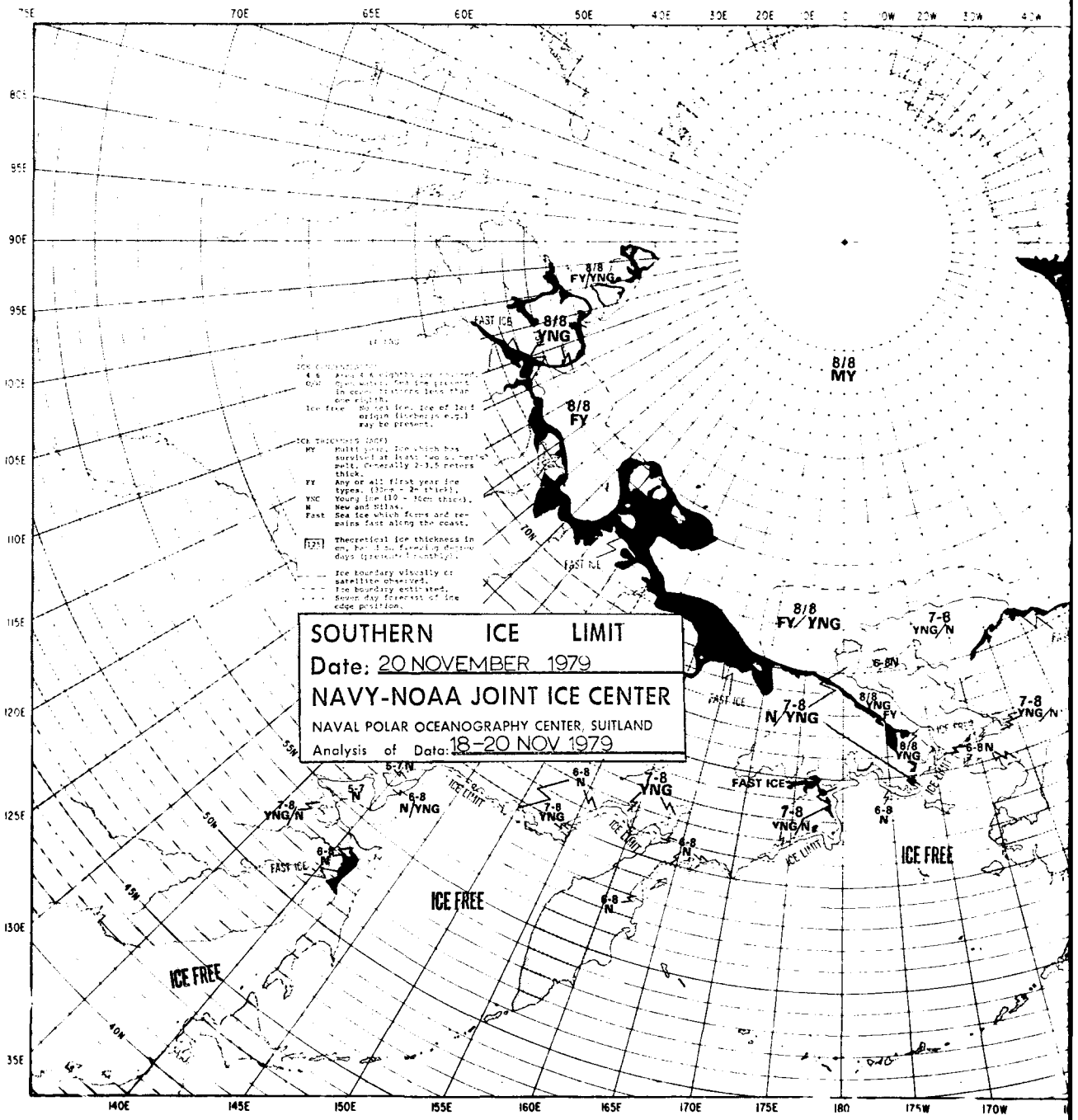
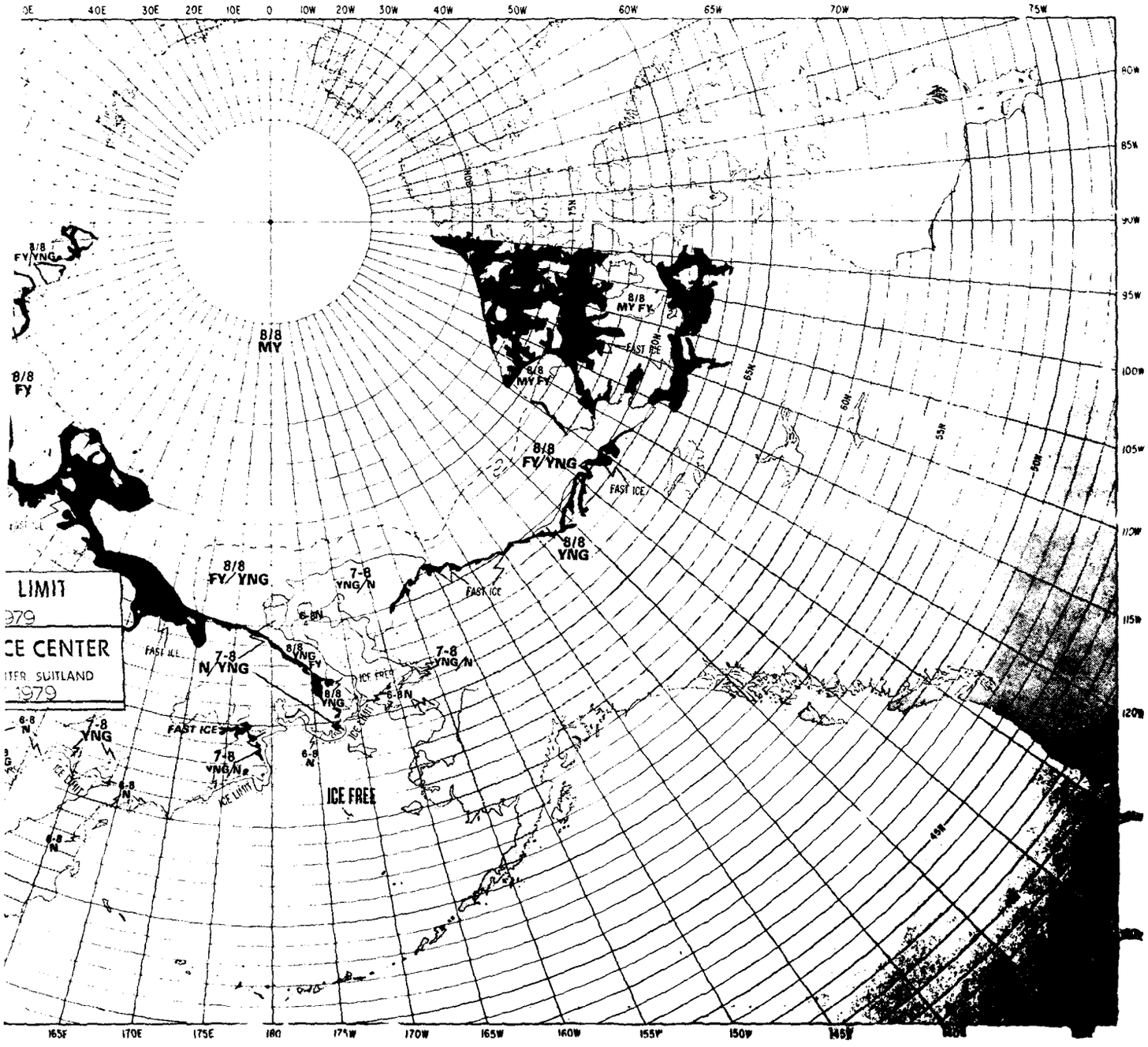
95W
100W
105W
110W
115W
120W
125W
130W
170E
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
135W
FAST ICE
8/8 MY/FY
8/8 MY
7-8 YNG/FY
7-8 YNG/N
ICE FREE
ICE FREE

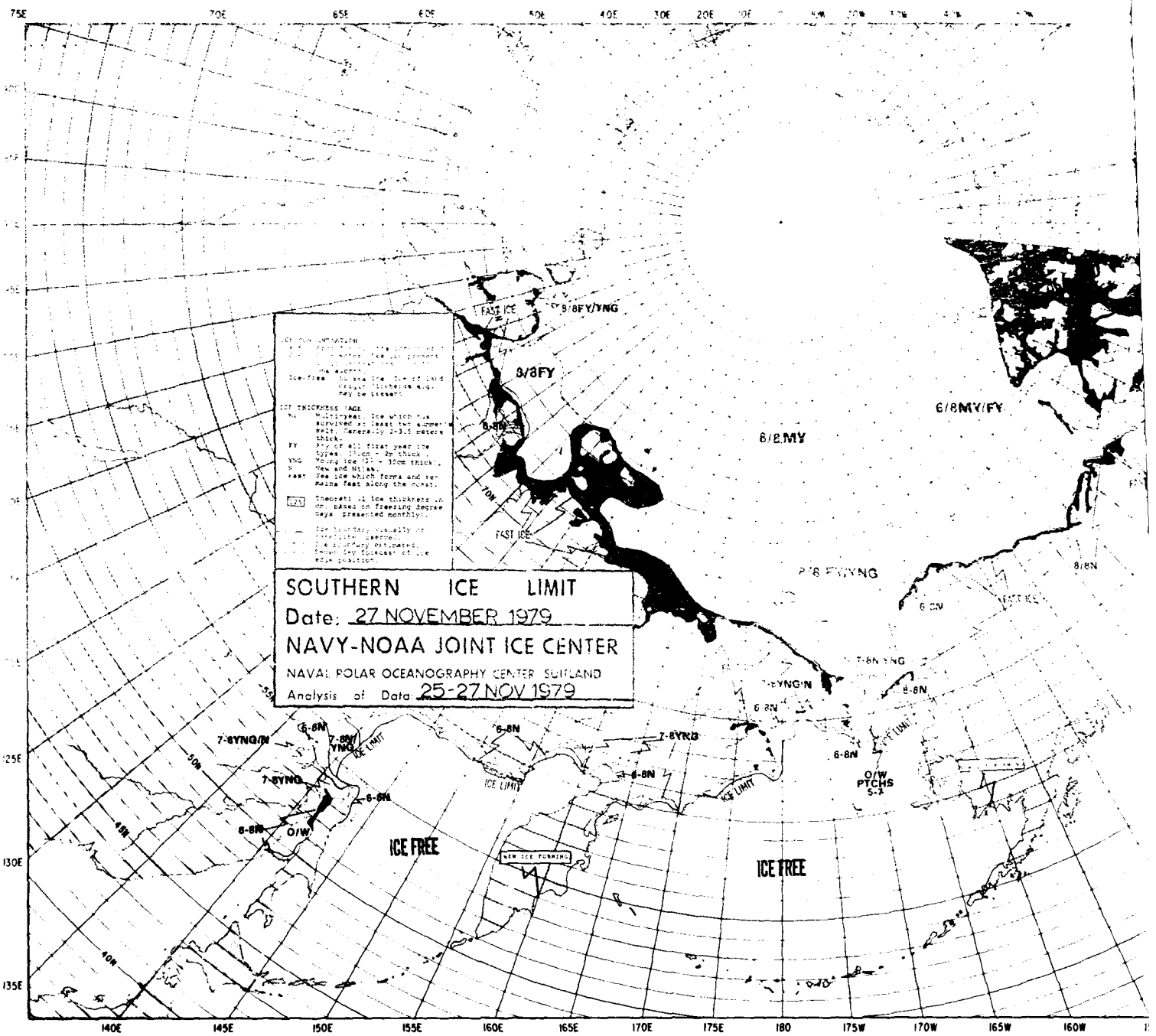
2

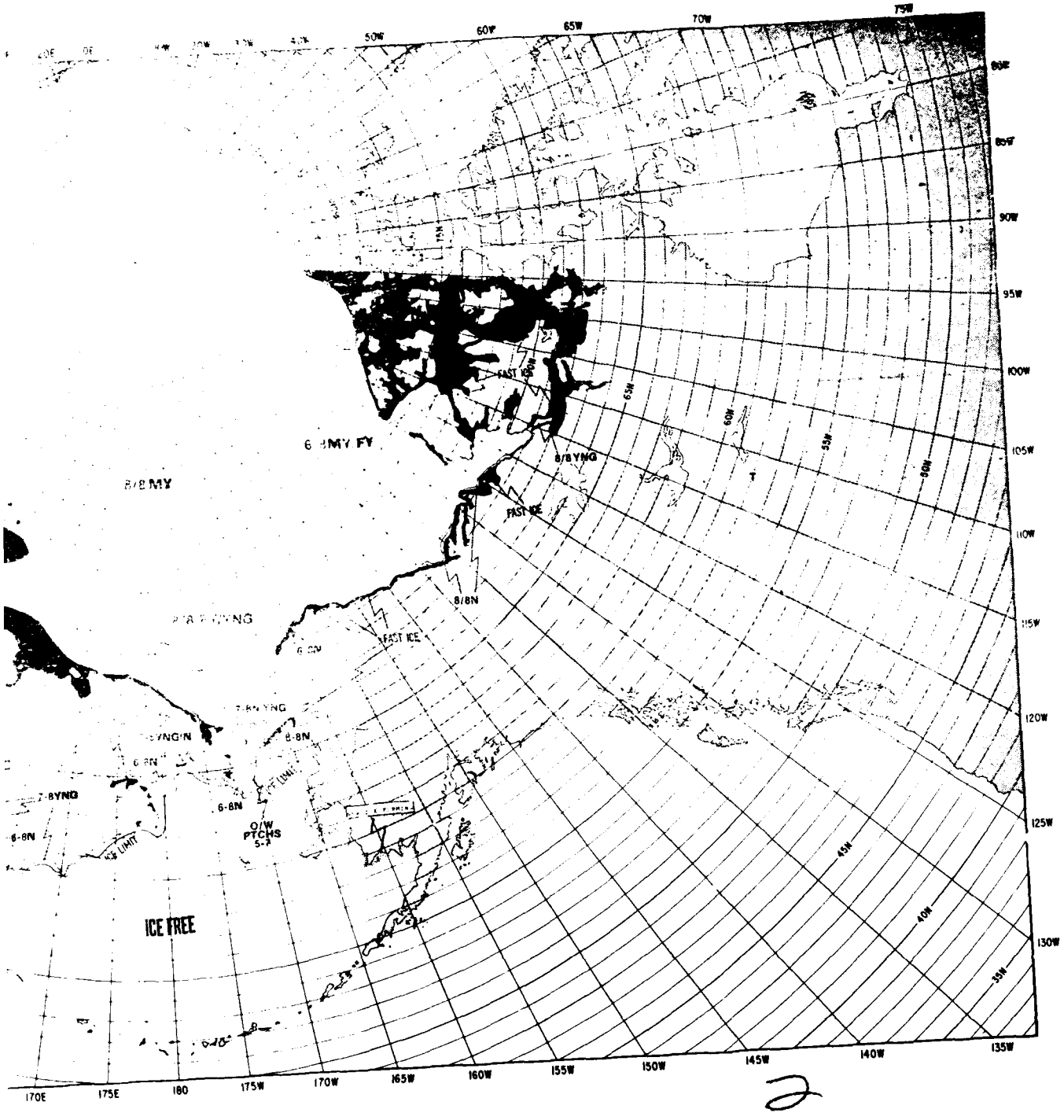

SOUTHERN ICE LIMIT
Date: 20 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 18-20 NOV 1979
8/8 FY/YNG
8/8 YNG
8/8 MY
8/8 FY
FAST ICE
ICE FREE
7-8 YNG/N
7-8 N/YNG
6-8 N/YNG
7-8 YNG
6-8 N
5-7 N
ICE LIMIT
70N
55N
50N
45N
40N



LIMIT
979
CE CENTER
ITER SUITLAND
1979
8/8 FY/YNG
8/8 MY
8/8 FY
8/8 MY FY
FAST ICE
8/8 FY/YNG
8/8 YNG
7-8 YNG/N
6-8N
7-8 N/YNG
8/8 YNG FY
8/8 YNG
ICE FREE
7-8 YNG
7-8 YNG/N
ICE LIMIT

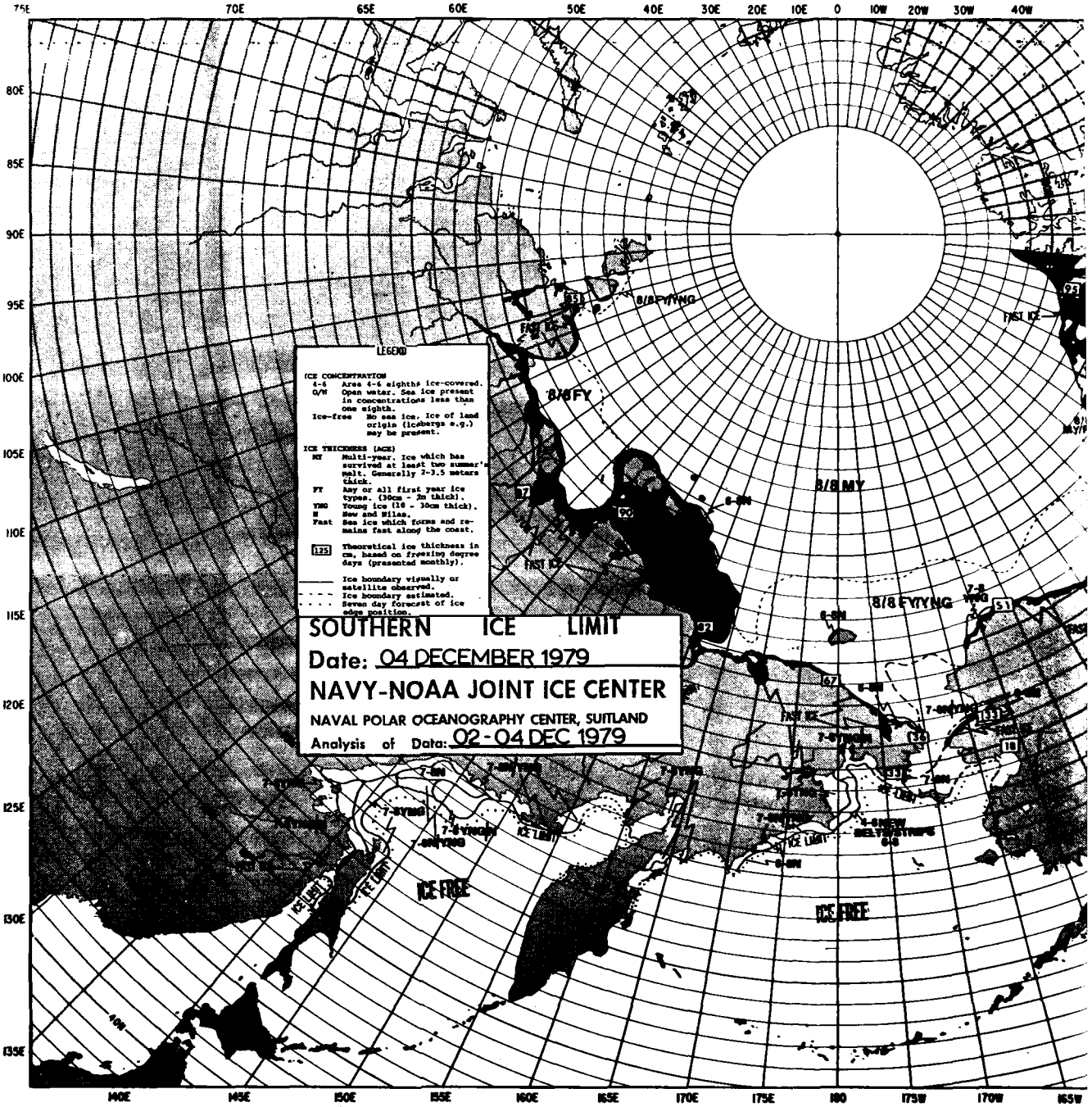
2

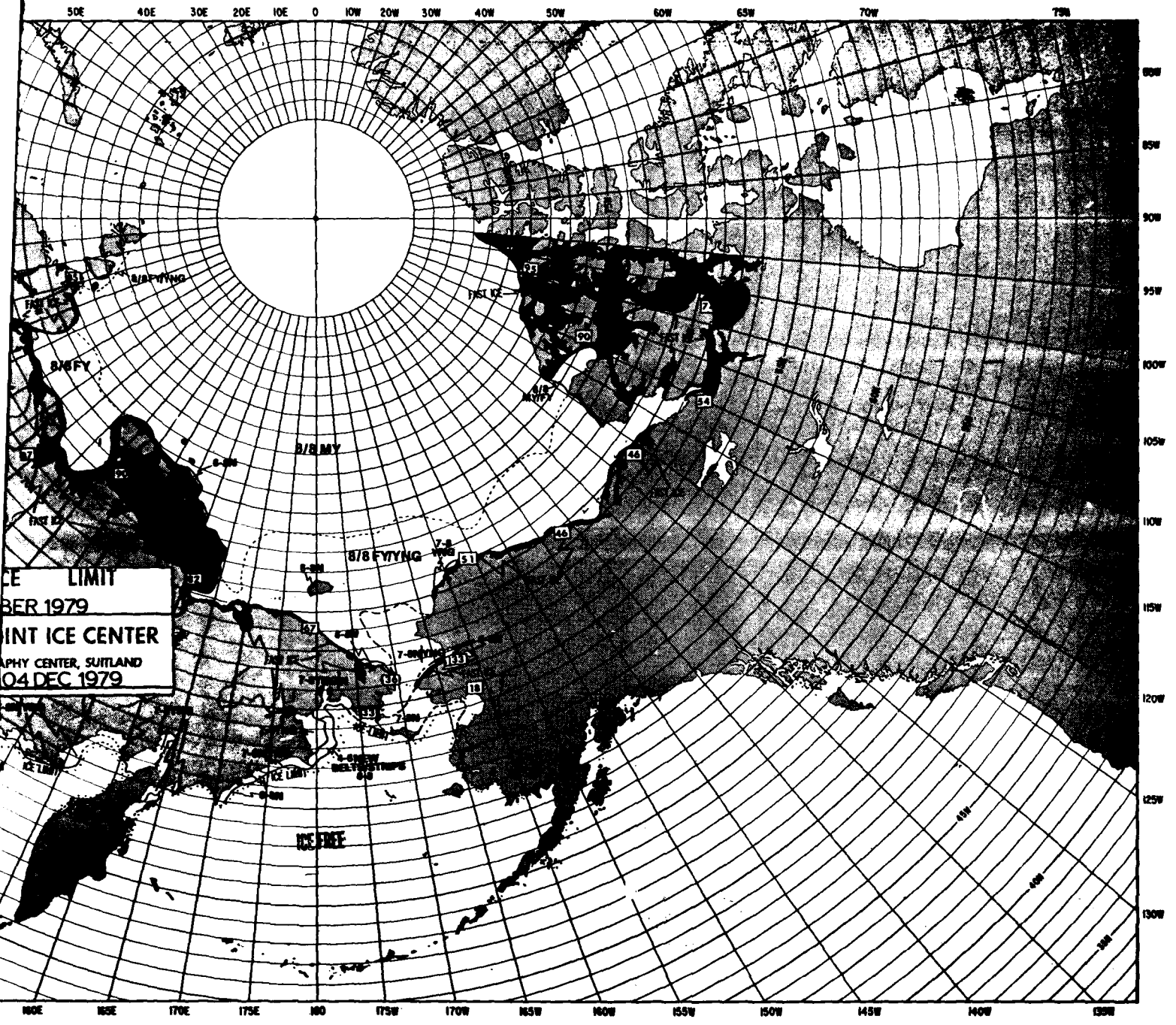

SOUTHERN ICE LIMIT
Date: 27 NOVEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER SUITLAND
Analysis of Data: 25-27 NOV 1979
ICE FREE
ICE FREE
FAST ICE
9/8FY/YNG
9/8FY
9/8MY/FY
9/8MY
7-8YNG/N
7-8YNG
6-8N
O/W
O/W PTCHS
ICE LIMIT
NEW ICE FORMING
70N
50N
45N
40N
75E
70E
65E
60E
50E
40E
30E
20E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
135E
130E
125E



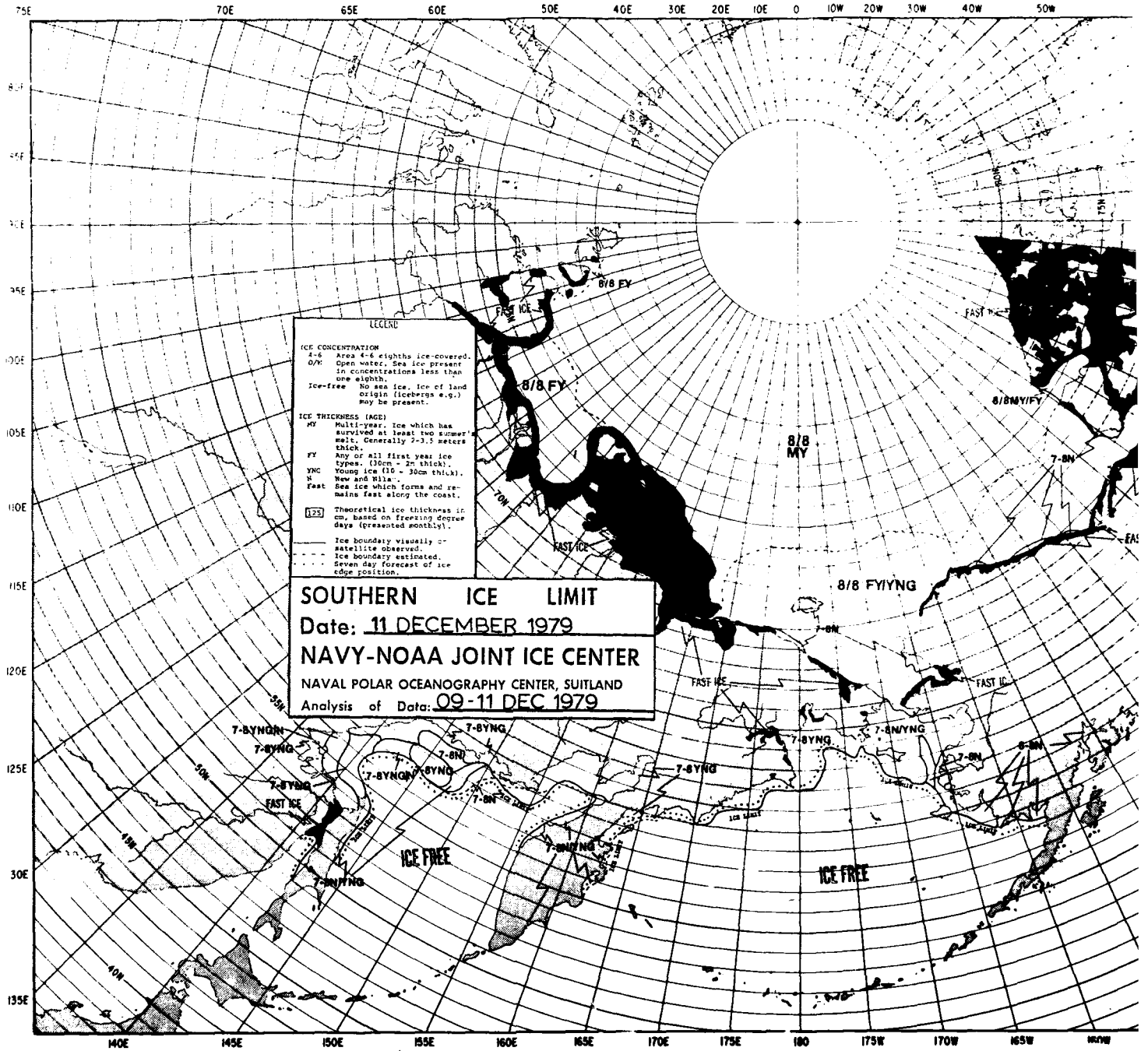
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
145W
150W
155W
160W
165W
170W
175W
180
175E
170E
FAST ICE
8/8YNG
8/8MY
8/8N
7-8YNG
6-8N
O/W
PTCHS
5-7
ICE FREE

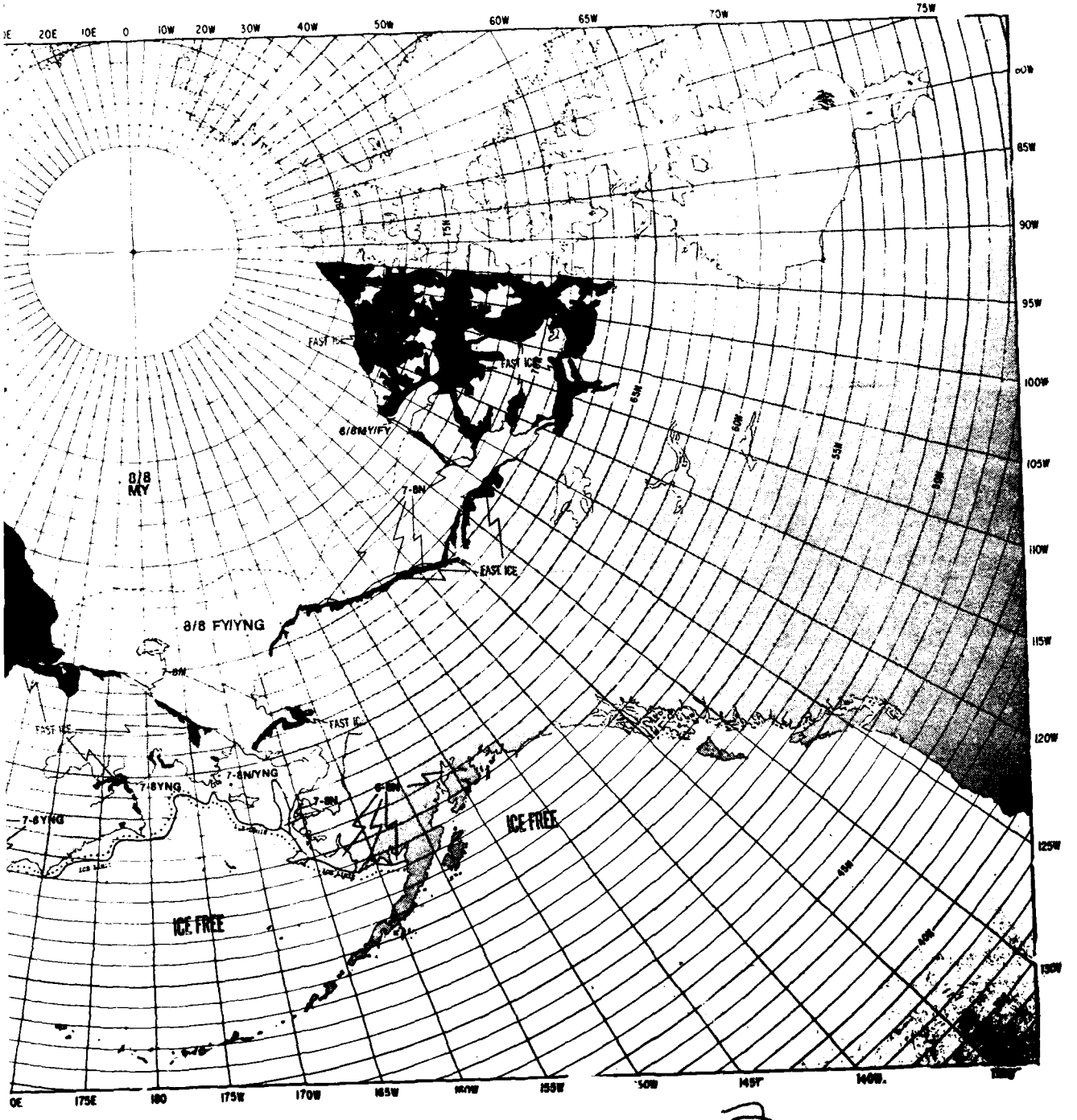
2


LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 04 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 02 - 04 DEC 1979
ICE FREE
ICE FREE
FAST ICE
FAST ICE
FAST ICE
8/8FYYNG
8/8FY
8/8MY
8/8FYYNG
7-8YNG
7-8YNG
7-8Y

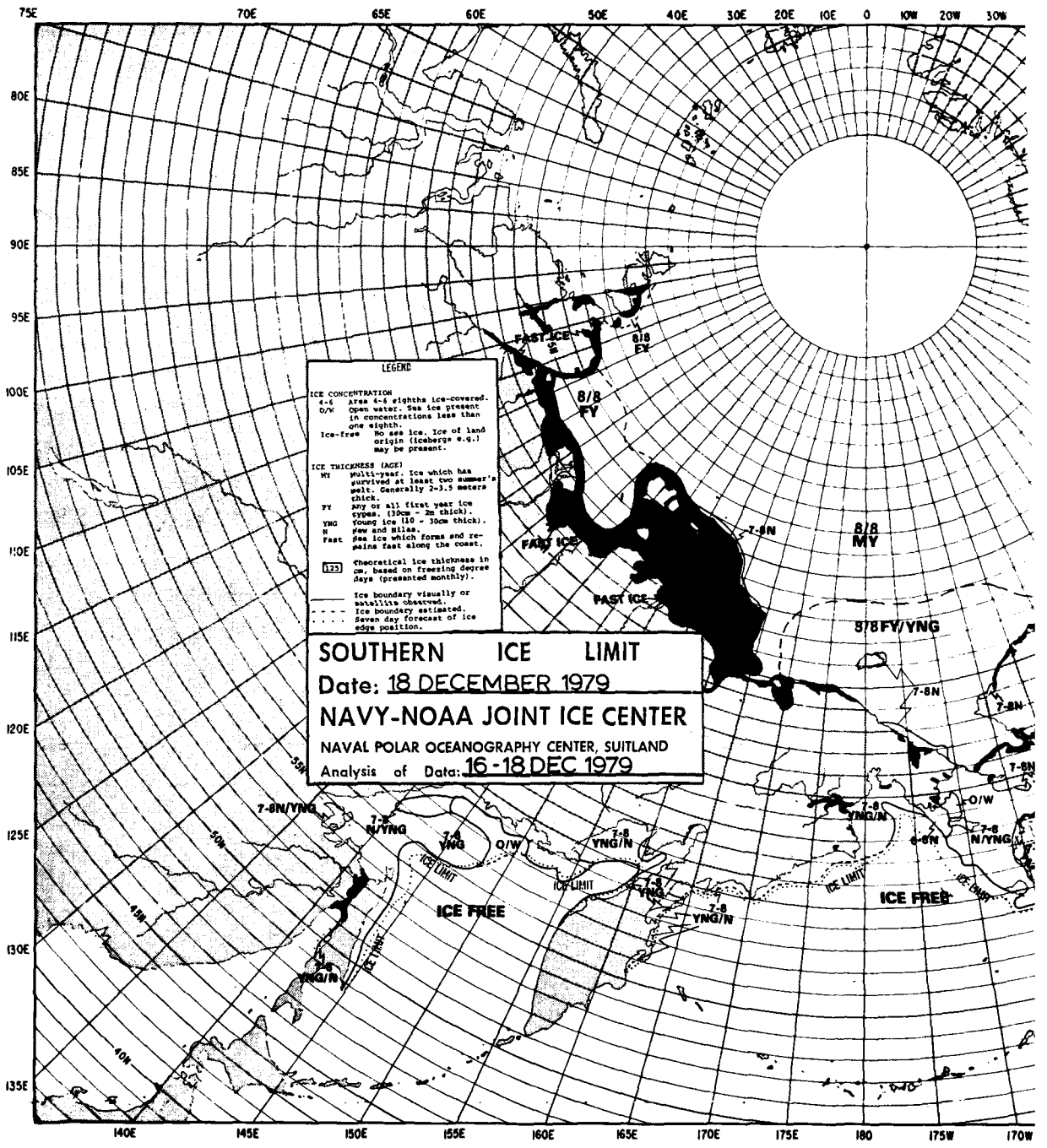

50E 40E 30E 20E 10E 0 10W 20W 30W 40W 50W 60W 65W 70W 75W
80W 85W 90W 95W 100W 105W 110W 115W 120W 125W 130W
160E 165E 170E 175E 180 175W 170W 165W 160W 155W 150W 145W 140W 135W
8/8FY/VYNG
8/8FY
8/8MY
FAST ICE
ICE LIMIT
ICE FREE
LIMIT
BER 1979
INT ICE CENTER
APHY CENTER, SUITLAND
04 DEC 1979

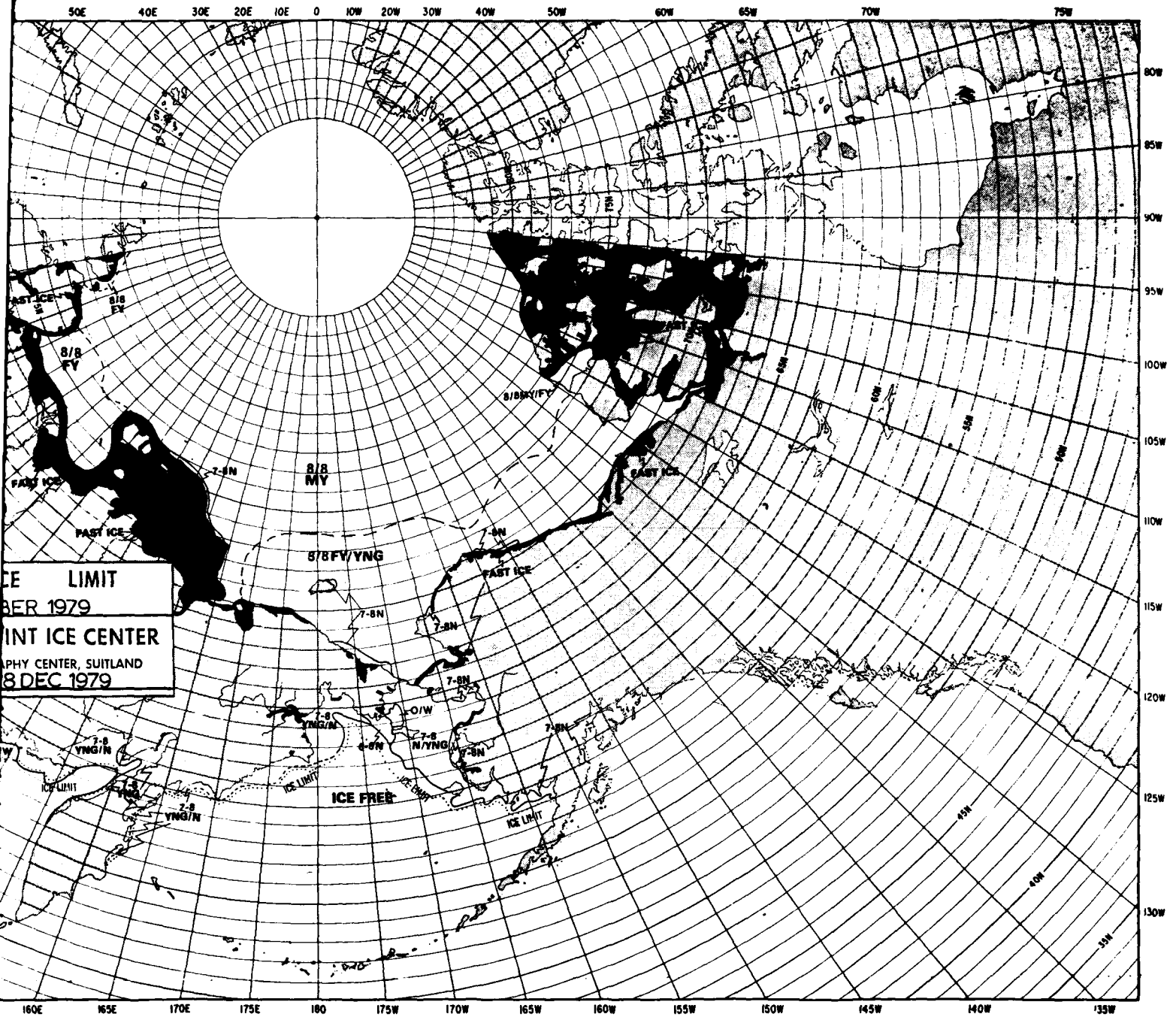
2

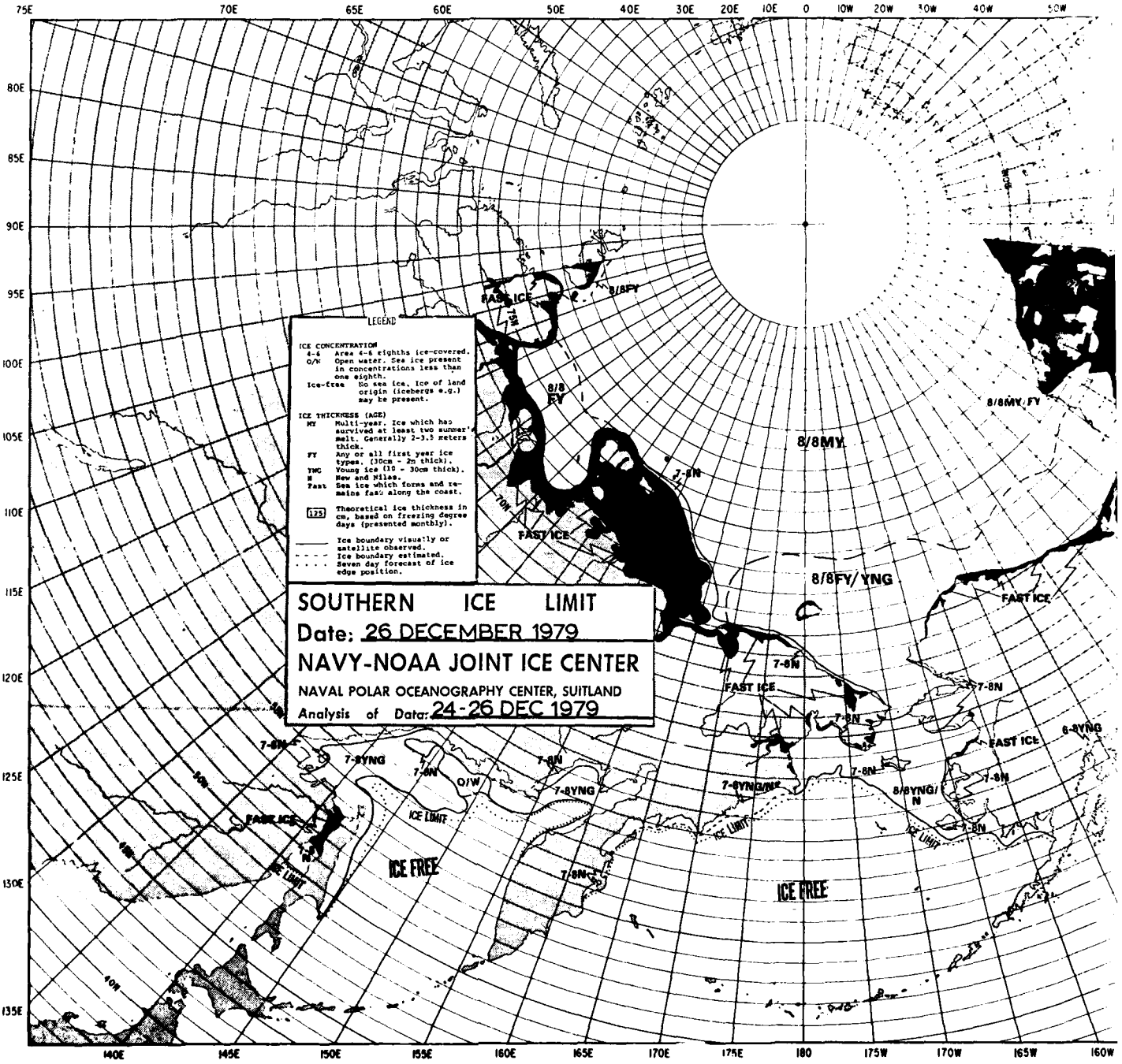

LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 9-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 11 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 09-11 DEC 1979
8/8 FY
8/8 MY
8/8 FY/YNG
8/8MY/FY
7-8N
7-8YNG
7-8N/YNG
FAST ICE
ICE FREE
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W


20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
85W
90W
95W
100W
105W
110W
115W
120W
125W
150W
175E
180
175W
170W
165W
160W
155W
150W
145W
140W
8/8MY/FY
8/8 MY
7-8N
EAST ICE
8/8 FY/YNG
7-8N
FAST ICE
7-8YNG
7-8NYNG
7-8YNG
7-8N
ICE FREE
ICE FREE

2


LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
125 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 18 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 16-18 DEC 1979
FAST ICE
8/8 FY
8/8 MY
8/8FY/YNG
7-8N
7-8N/YNG
7-8 N/YNG
7-8 YNG
7-8 YNG/N
O/W
ICE LIMIT
ICE FREE
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
55N
50N
45N
40N


50E 40E 30E 20E 10E 0 10W 20W 30W 40W 50W 60W 65W 70W 75W
80W 85W 90W 95W 100W 105W 110W 115W 120W 125W 130W
160E 165E 170E 175E 180 175W 170W 165W 160W 155W 150W 145W 140W 135W
8/8 FY
8/8 MY
8/8FY/YNG
8/8MY/FY
FAST ICE
7-8N
6-8N
O/W
7-8 YNG/N
7-8 N/YNG
2-8 YNG/N
ICE LIMIT
ICE FREE
LIMIT
1979
INT ICE CENTER
PHY CENTER, SUITLAND
8 DEC 1979


LEGEND
ICE CONCENTRATION
4-6 Area 4-6 eighths ice-covered.
O/W Open water. Sea ice present in concentrations less than one eighth.
Ice-free No sea ice. Ice of land origin (icebergs e.g.) may be present.
ICE THICKNESS (AGE)
MY Multi-year. Ice which has survived at least two summer's melt. Generally 2-3.5 meters thick.
FY Any or all first year ice types. (30cm - 2m thick).
YNG Young ice (10 - 30cm thick).
N New and Nilas.
Fast Sea ice which forms and remains fast along the coast.
175 Theoretical ice thickness in cm, based on freezing degree days (presented monthly).
Ice boundary visually or satellite observed.
Ice boundary estimated.
Seven day forecast of ice edge position.
SOUTHERN ICE LIMIT
Date: 26 DECEMBER 1979
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND
Analysis of Data: 24-26 DEC 1979
75E
70E
65E
60E
50E
40E
30E
20E
10E
0
10W
20W
30W
40W
50W
80E
85E
90E
95E
100E
105E
110E
115E
120E
125E
130E
135E
140E
145E
150E
155E
160E
165E
170E
175E
180
175W
170W
165W
160W
FAST ICE
8/8FY
8/8 FY
8/8MY
8/8MY/FY
8/8FY/YNG
7-8N
7-8YNG
7-8YNG/N
8/8YNG/N
6-8YNG
O/W
ICE LIMIT
ICE FREE
70N
80N
90N

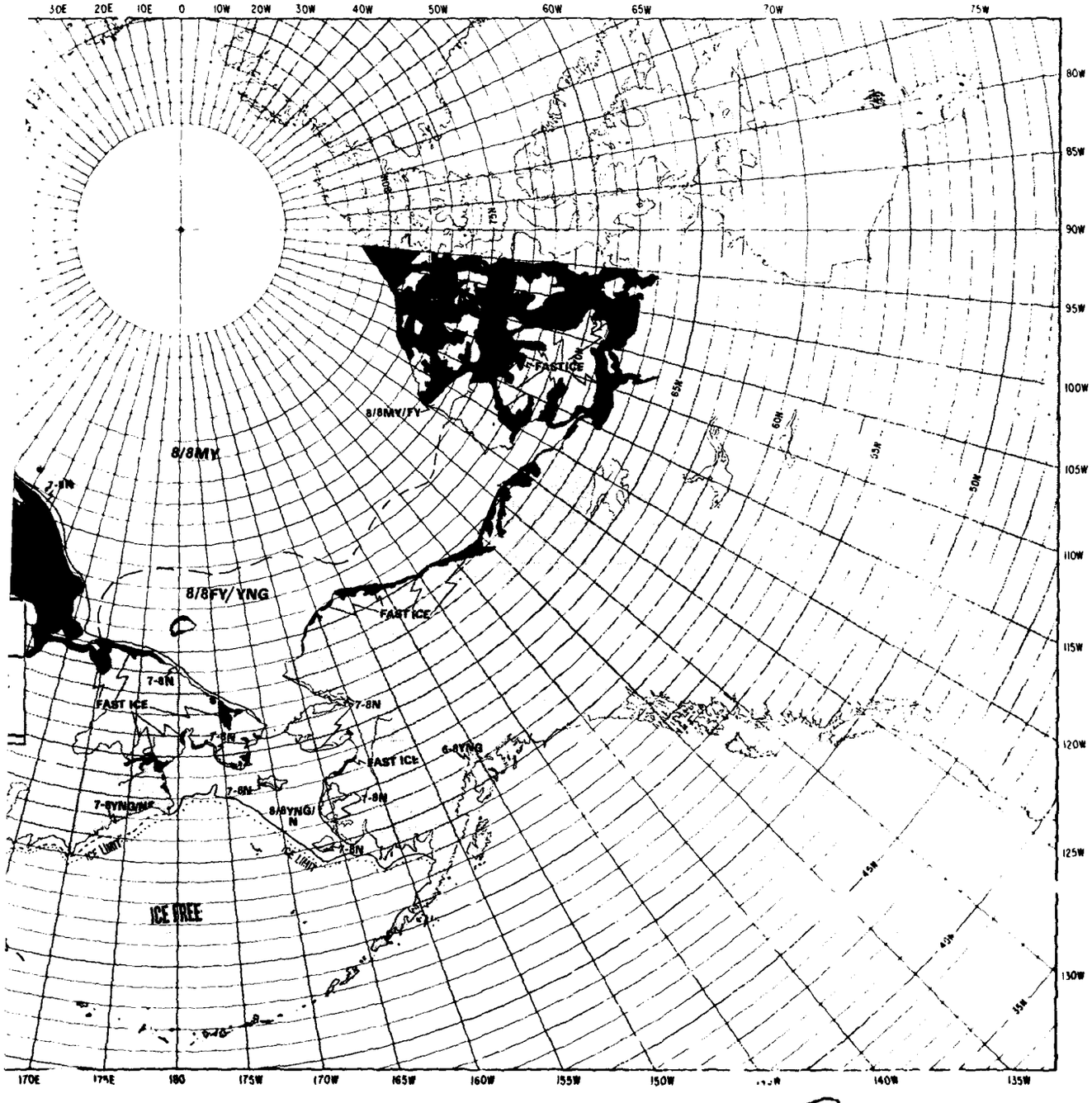

30E
20E
10E
0
10W
20W
30W
40W
50W
60W
65W
70W
75W
80W
85W
90W
95W
100W
105W
110W
115W
120W
125W
130W
135W
140W
170E
175E
180
175W
170W
165W
160W
155W
150W
8/8MY/FY
FAST ICE
8/8MY
7-8N
8/8FY/YNG
FAST ICE
7-8N
FAST ICE
7-8N
7-8N
7-8N
7-8N
FAST ICE
6-8YNG
7-8YNG/MF
8/8YNG/N
7-8N
ICE LIMIT
ICE LIMIT
ICE FREE

TABLE I TYPE OF SATELLITE DATA UTILIZED DURING 1979

Time Period		Satellite Remote Sensing			
from	to	Sensor platform	Sensor type	Spectral region	Resolution (Subsatellit
1-79	1-79	NOAA-5	VHRR		
			VIS	0.6 - 0.7 um	1 km
			IR	10.5 -12.5 um	1 km
2-79	12-79	TIROS-N	AVHRR		
			HRPT/LAC		
			VIS	0.55 - 0.90 um	1 km
			IR	10.5 -11.5 um	1 km
			GAC		
			VIS	0.55- 0.90 um	4 km
			IR	10.5 -11.5 um	4 km
1-79	12-79	DMSP	HR	0.4 - 1.1 um	3.7 km
			MI	8.0 -13.0 um	4.4 km
1-79	12-79	NIMBUS V	ESMR	1.55 cm	25 km
3-79	6-79	GEOS-3	ALT	13.9 GHz	7 km

Abbreviations and Acronyms

ALT	Radar Altimeter
AVHRR	Advanced Very High Resolution Radiometer
cm	Centimeter
DMSP	Defense Meteorological Satellite Program
ESMR	Electrically Scanning Microwave Radiometer
GAC	Global Area Coverage
GHz	Gigahertz
HR	High Resolution (Visual Scanning Radiometer)
HRPT	High Resolution Picture Transmission
IR	Infrared
km	Kilometer
LAC	Local Area Coverage
MI	High Resolution (Infr
VHRR	Very High Resolution
VIS	Visual
um	Micrometer

DATA UTILIZED DURING 1979

Satellite Remote Sensing				
r orm	Sensor type	Spectral region	Resolution (Subsatellite point)	Coverage
5	VHRR			
	VIS	0.6 - 0.7 um	1 km	Regional
	IR	10.5 -12.5 um	1 km	
-N	AVHRR			
	HRPT/LAC			
	VIS	0.55 - 0.90 um	1 km	Regional
	IR	10.5 -11.5 um	1 km	
	GAC			
	VIS	0.55- 0.90 um	4 km	Global
	IR	10.5 -11.5 um	4 km	
	HR	0.4 - 1.1 um	3.7 km	Global
	MI	8.0 -13.0 um	4.4 km	
S V	ESMR	1.55 cm	25 km	Global
3	ALT	13.9 GHz	7 km	Regional

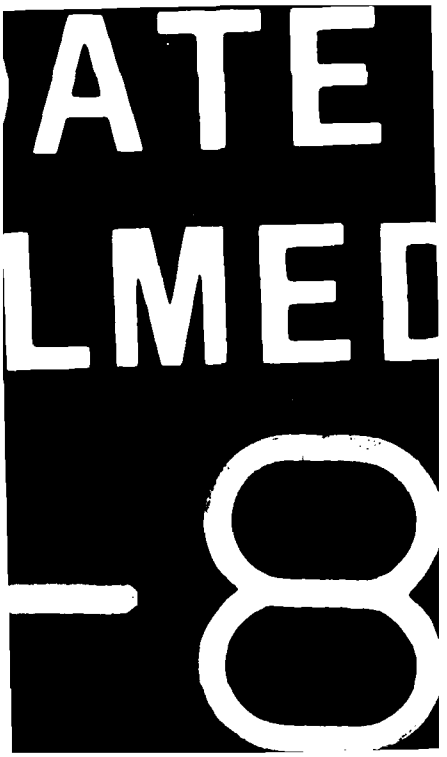
Resolution Radiometer

ical Satellite Program
ing Microwave Radiometer
ge

isual Scanning Radiometer)
cture Transmission

IR Infrared
km Kilometer
LAC Local Area Coverage
MI High Resolution (Infrared Scanning Radiometer)
VHRR Very High Resolution Radiometer
VIS Visual
um Micrometer

2


ATE
LMED
8