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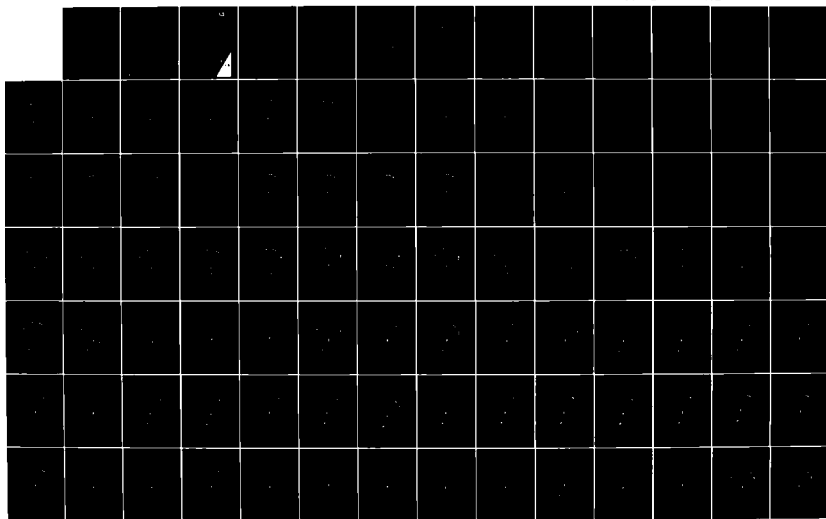
ANTARCTIC ICE CHARTS 1981-1982(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC 1982

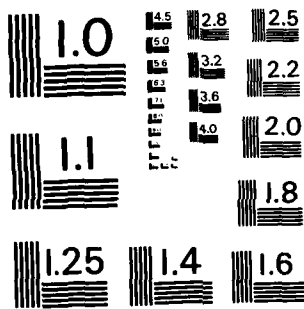
1/3

UNCLASSIFIED

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

UNCLASSIFIED

ANTARCTIC ICE CHARTS 1981-1982

ADA 132323

PREPARED BY
NAVAL POLAR OCEANOGRAPHY CENTER,
SUITLAND, MD

ENC FILE COPY

PREPARED FOR
COMMANDER,
NAVAL OCEANOGRAPHY COMMAND
NSTL STATION, BAY ST. LOUIS. MS 39529

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Approved for public release
Distribution Unlimited

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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.

Through 1972, 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 fifth in a continuing bi-yearly series of Antarctic sea ice atlases prepared in the Joint Ice Center at the Naval Polar Oceanography Center, Suitland. The atlas contains weekly charts depicting Southern Hemisphere ice conditions and extents. The information presented was prepared under operational time constraints principally from satellite imagery supplemented by conventional observations. Table 1 located on the inside back cover summarizes satellite data availability for 1981 and 1982. ←

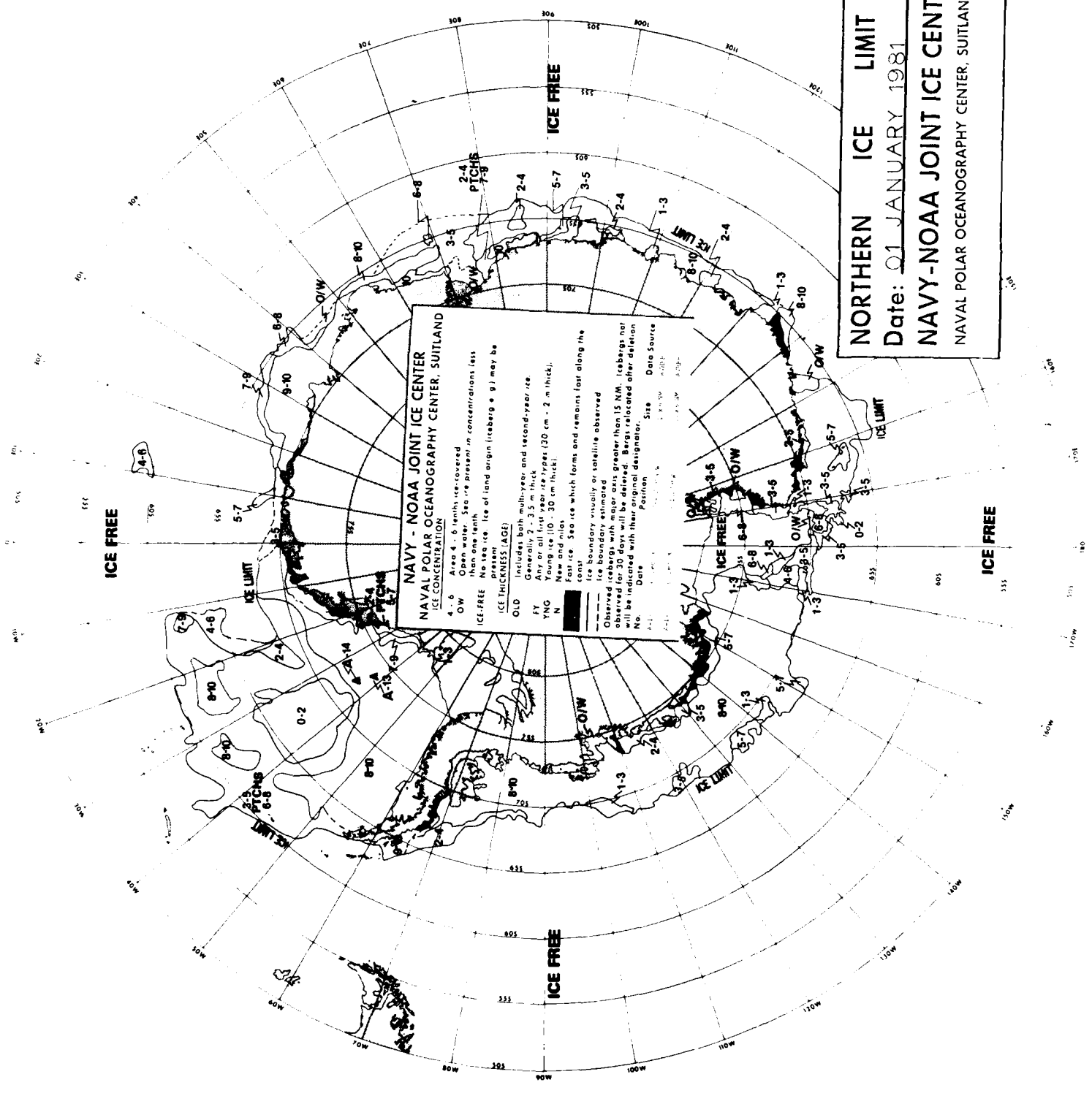
The purpose of this atlas is to provide operators and researchers with reliable weekly hemispheric ice analyses. Satellite data limitations and other difficulties involved in manually synthesizing various forms of ice data have evolved the following analysis procedures:

- 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.
- 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.

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DTIC TAB	☐
Unannounced	☐
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Joint Ice Center
Naval Polar Oceanography Center
4301 Suitland Road
Washington, DC 20390





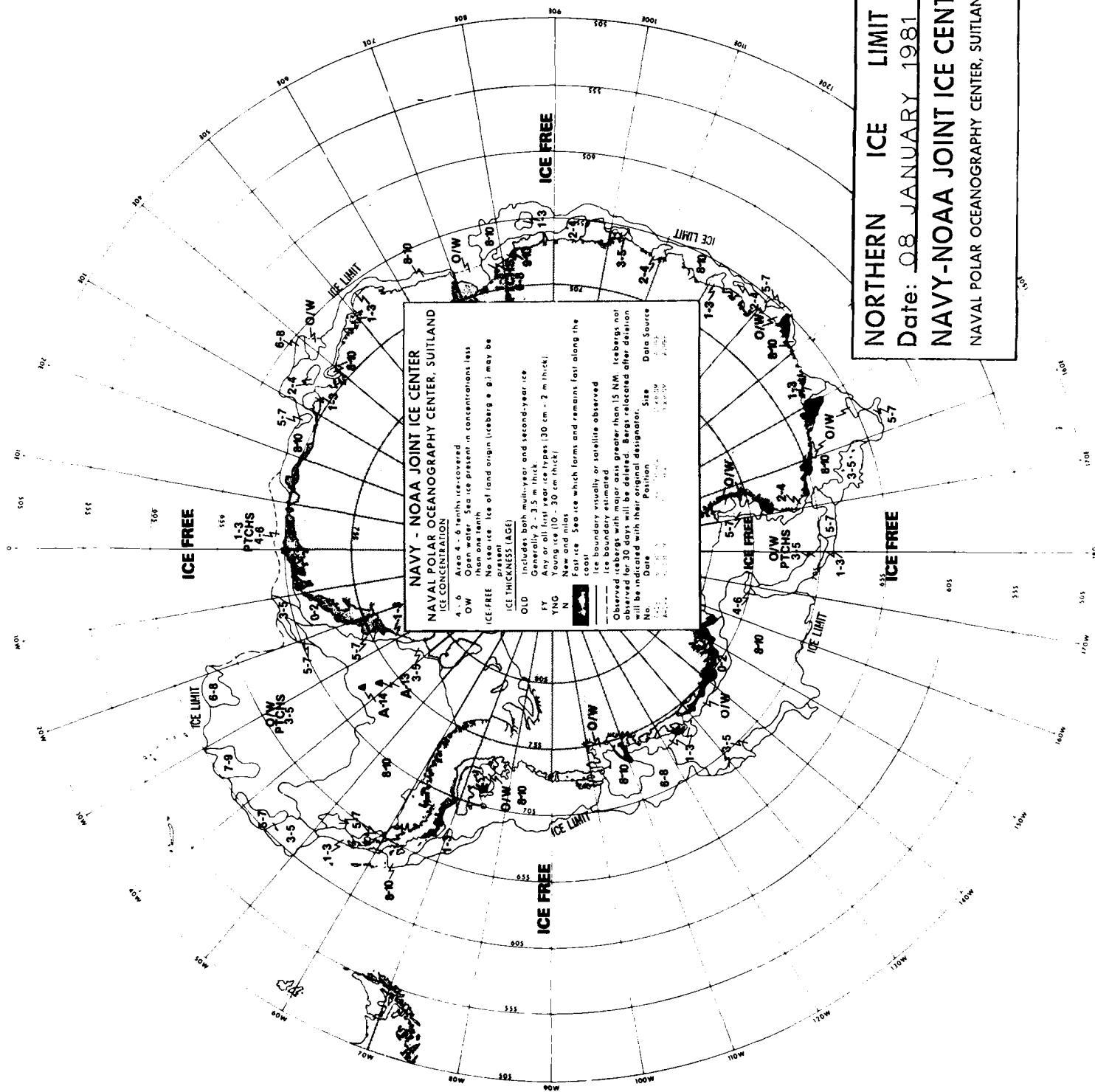
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION
 4-6 Area 4-6 tenths ice-covered
 OW Open water
 ICE-FREE No ice present in concentrations less than one tenth
 ICE-THICK No ice of land origin (iceberg, etc.) may be present

ICE THICKNESS (AGE)
 OLD Includes both multi-year and second-year ice
 Generally 2-3.5 m thick
 NY Any or all first year ice types (20 cm - 2 m thick)
 YG Young ice (10 - 30 cm thick)
 N New and nilas
 Ice boundary visually or satellite observed
 Ice boundary estimated
 Observed icebergs with major axis greater than 15 NM. Icebergs not observed for 30 days will be deleted. Berge located after deletion will be indicated with their original designator.

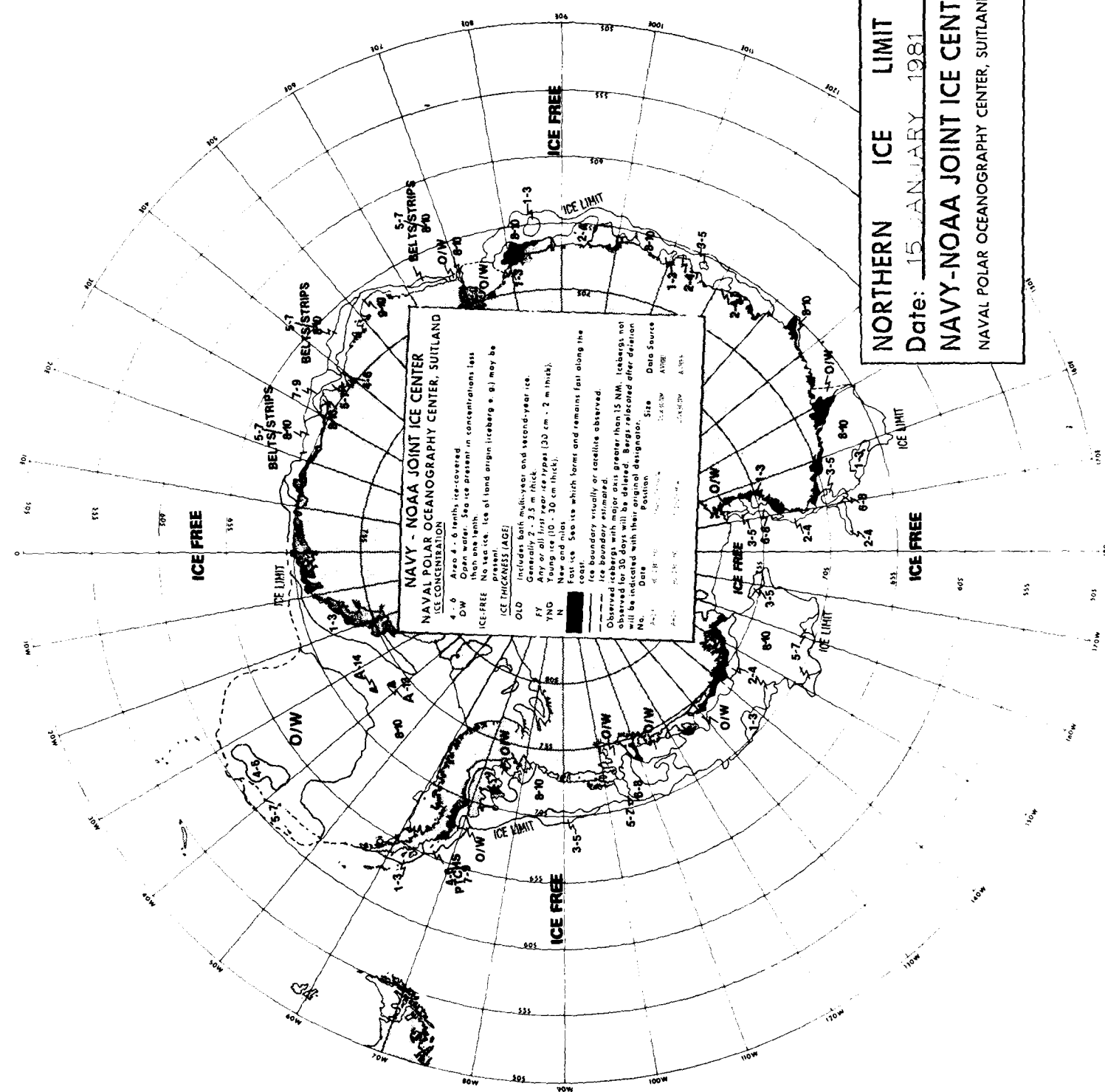
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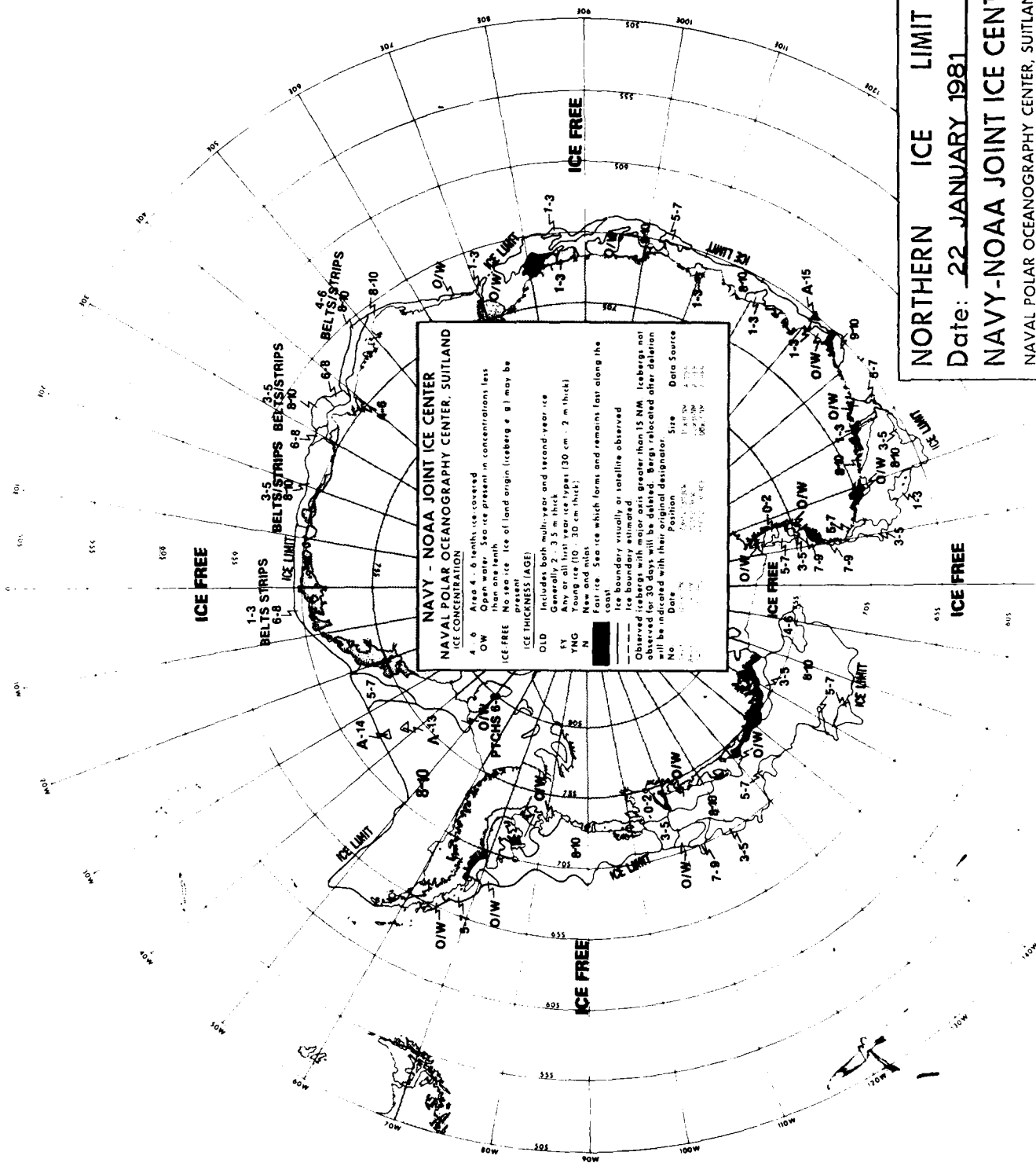
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Date: 01 JANUARY 1981
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



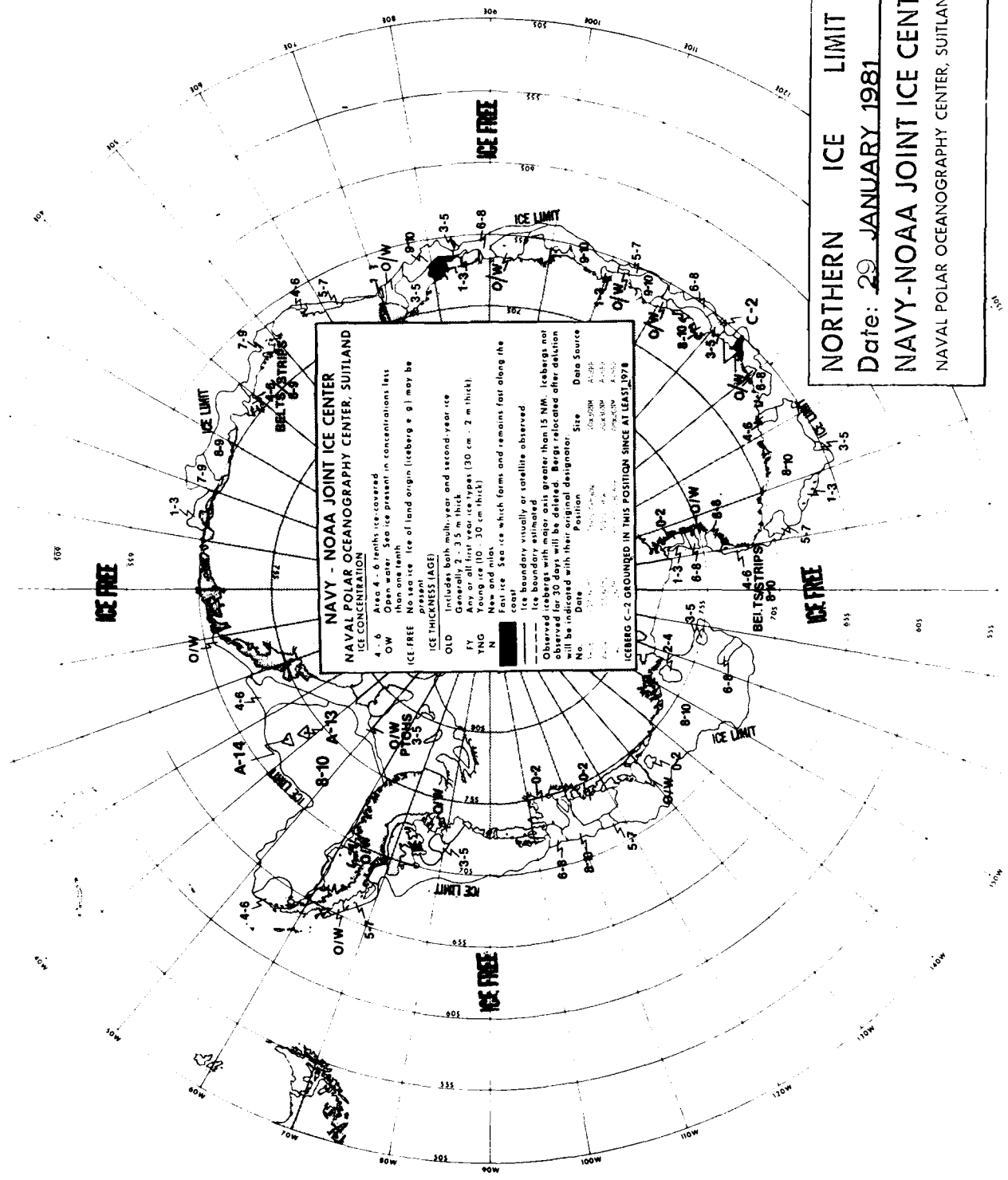
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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

NORTHERN ICE LIMIT
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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

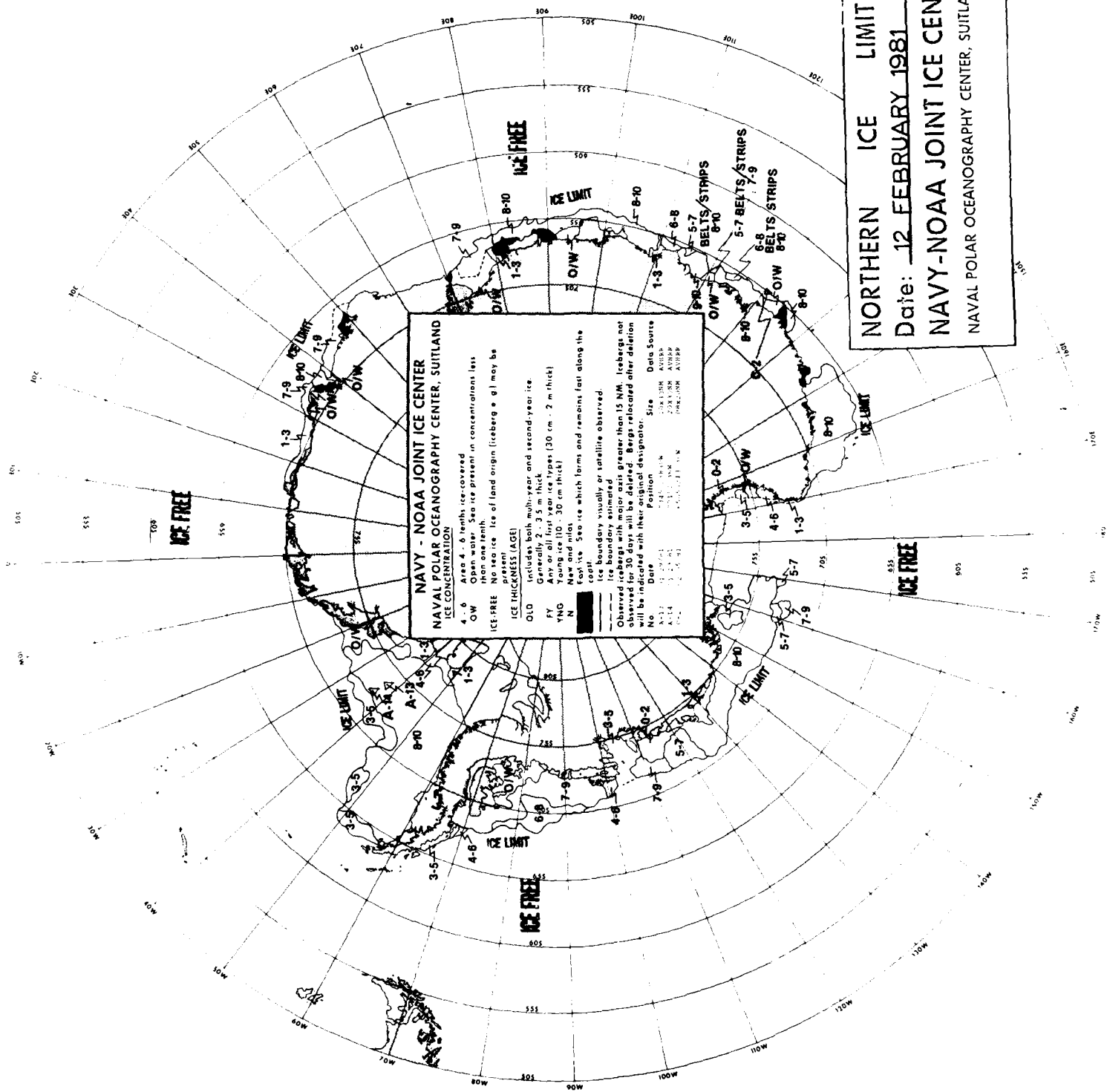




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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND



NORTHERN ICE LIMIT
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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

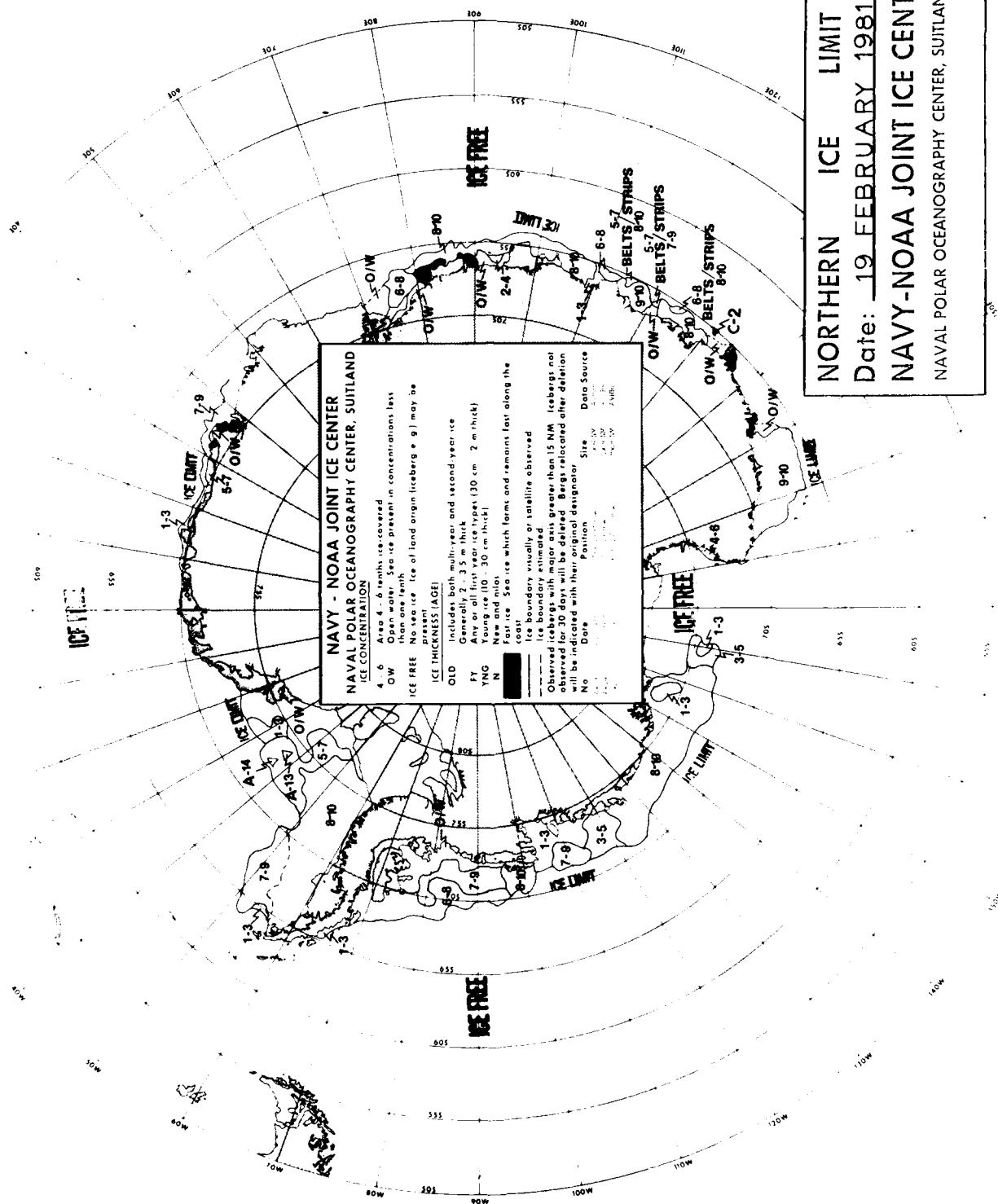


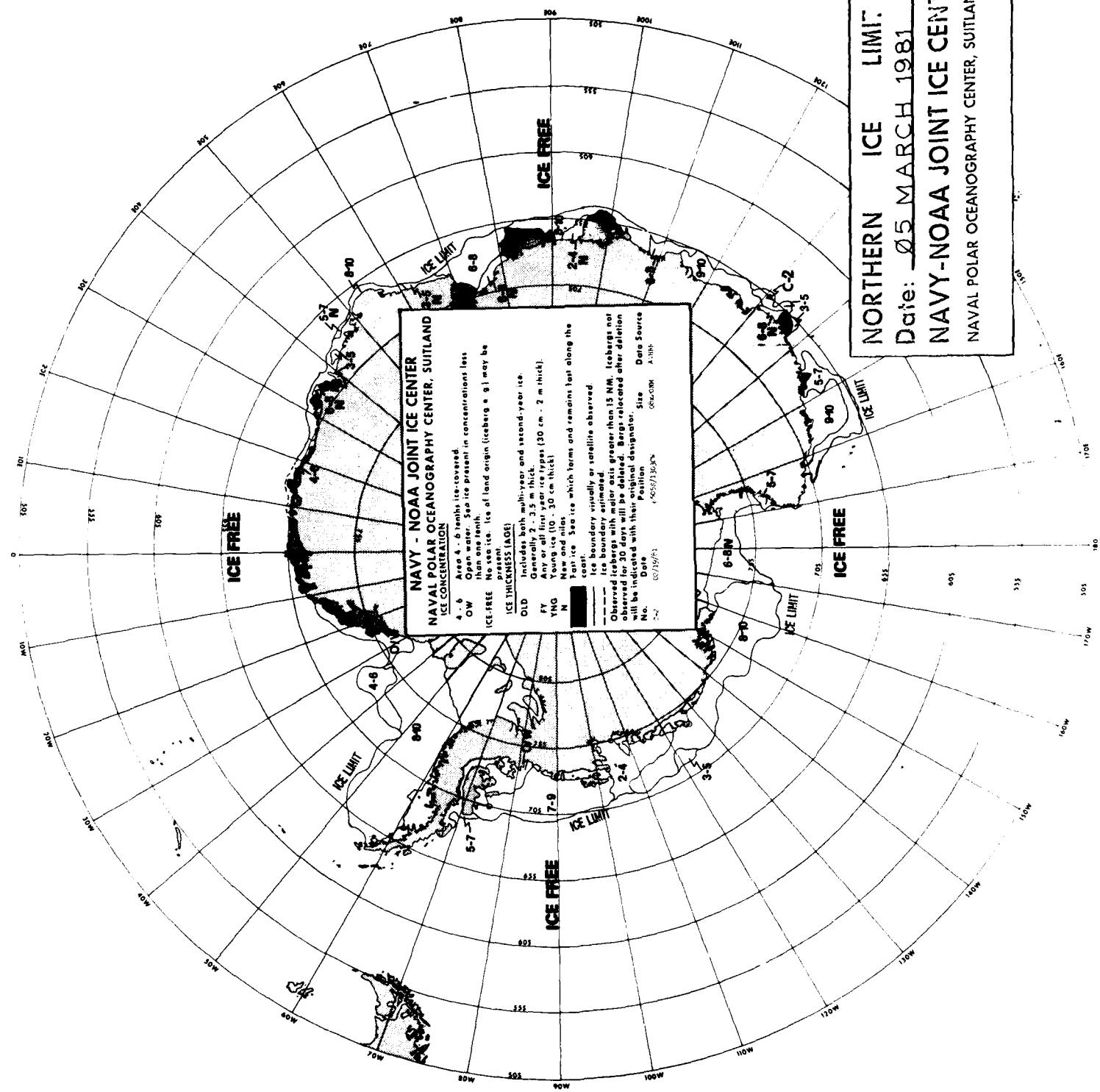
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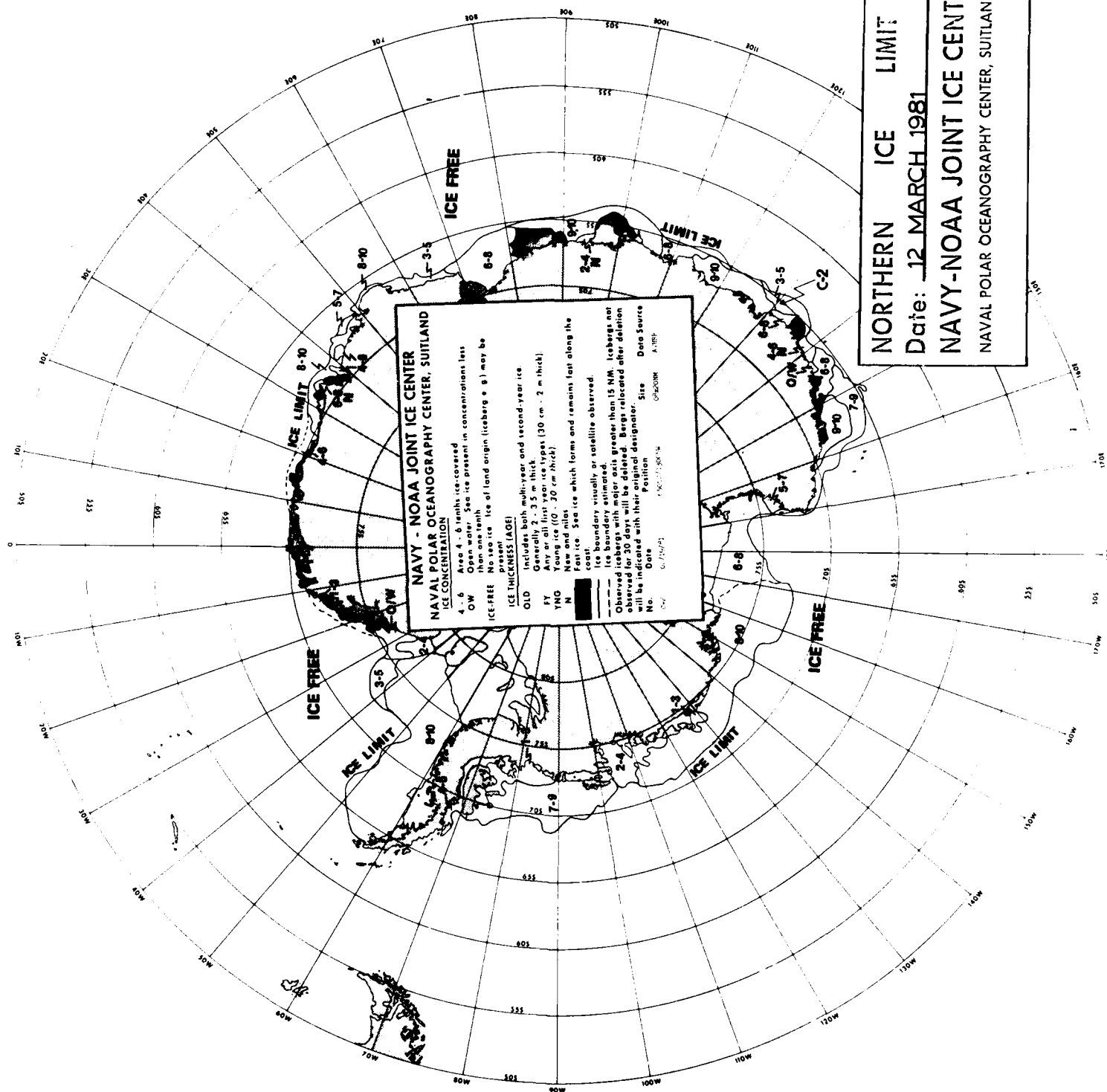
NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND





NORTHERN ICE LIMIT:
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 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

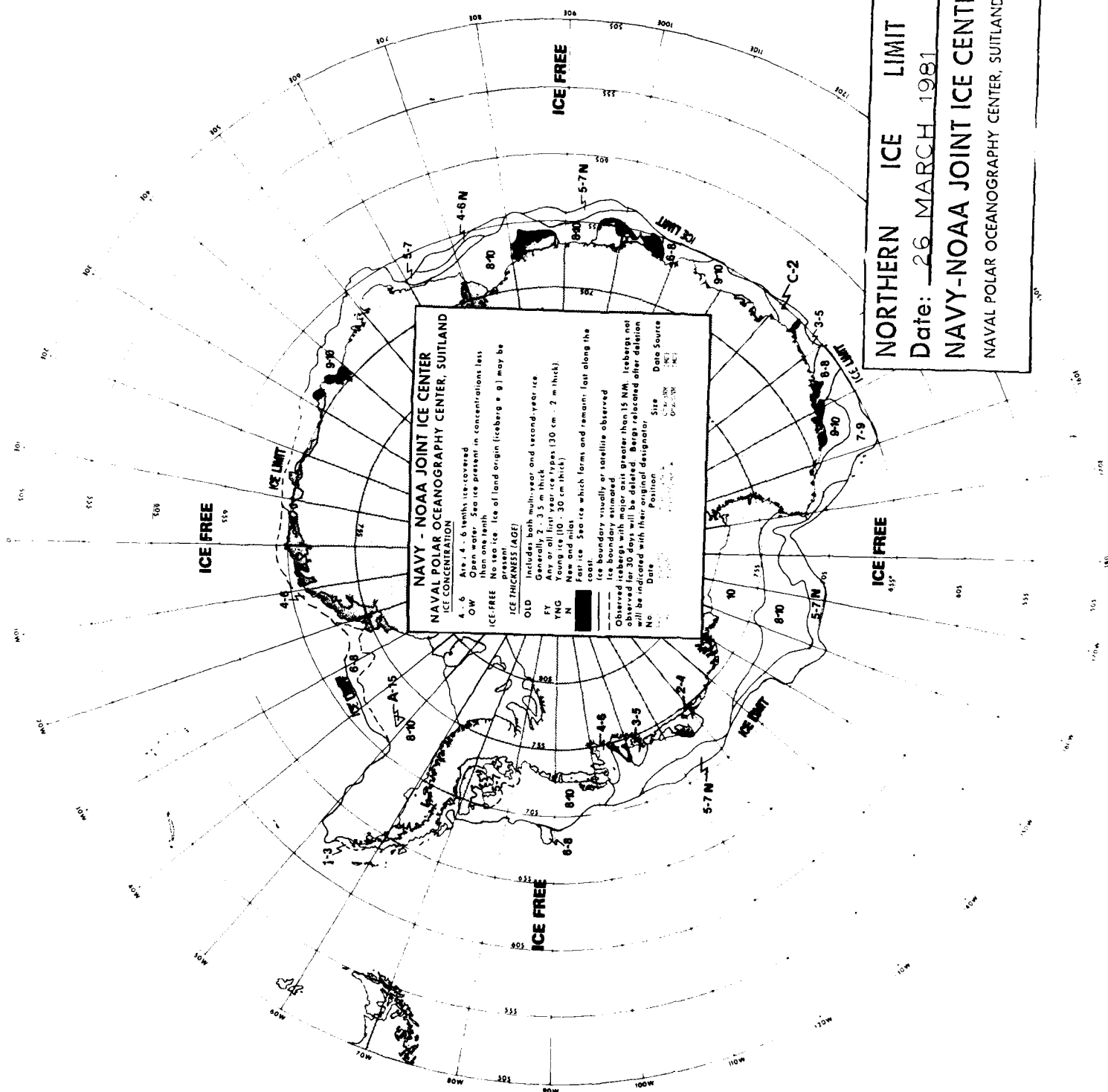


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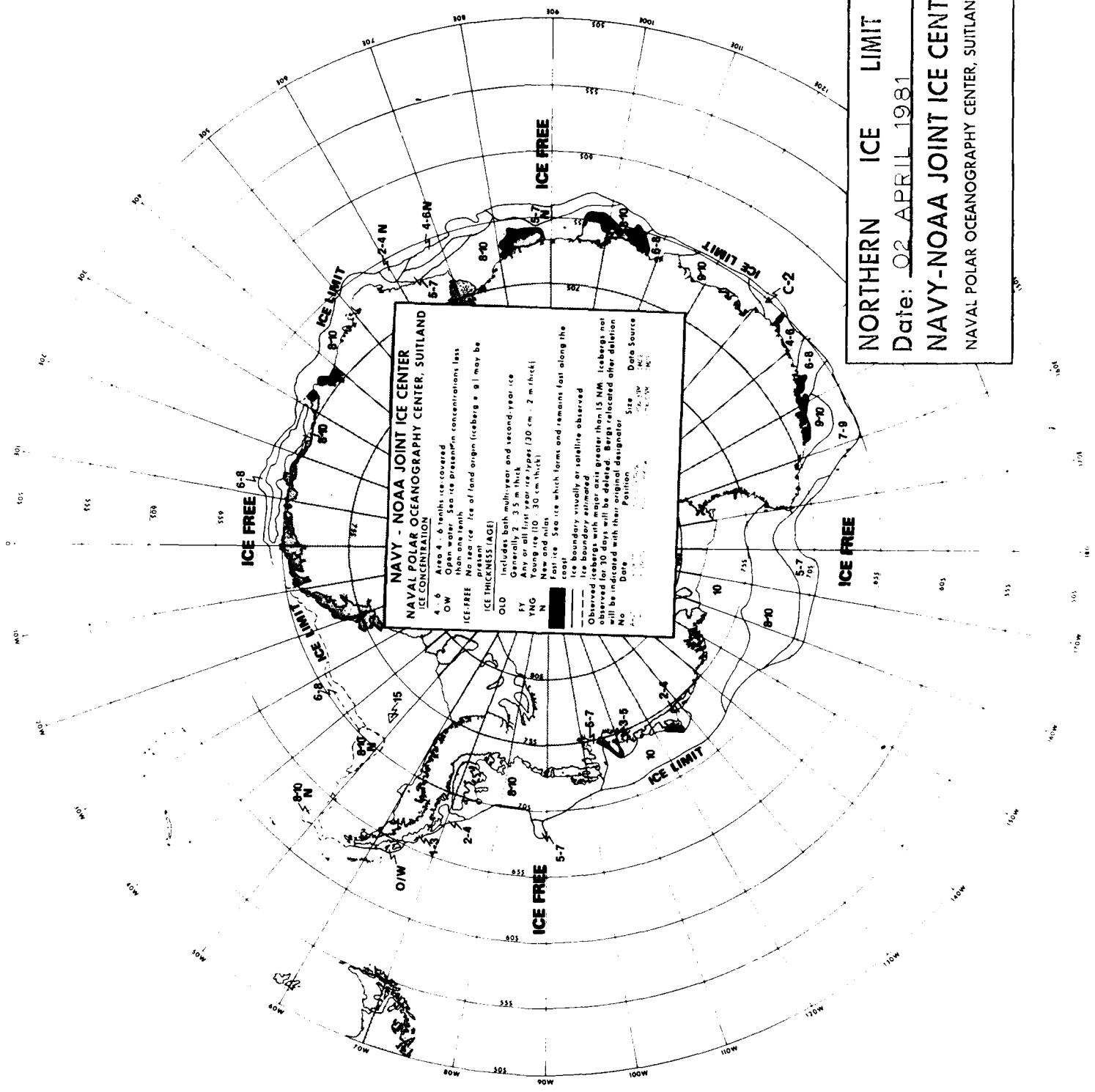
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NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



NORTHERN ICE LIMIT
 Date: 26 MARCH 1981
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND



NORTHERN ICE LIMIT
Date: 02 APRIL 1981
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NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

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NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

ICE CONCENTRATION

4-9 Area 4-6 tenths ice covered
OW Open water. Sea ice present in concentrations less than one tenth
ICE-FREE No sea ice. Ice of land origin (iceberg or gl) may be present

ICE THICKNESS (AGE)

OLD Includes both multi-year and second-year ice
Generally 2-3.5 m thick
FY First year ice types (30 cm - 2 m thick)
YNG Young ice (10-30 cm thick)
N New and nilas
Fat ice Sea ice which forms and remains fat along the coast

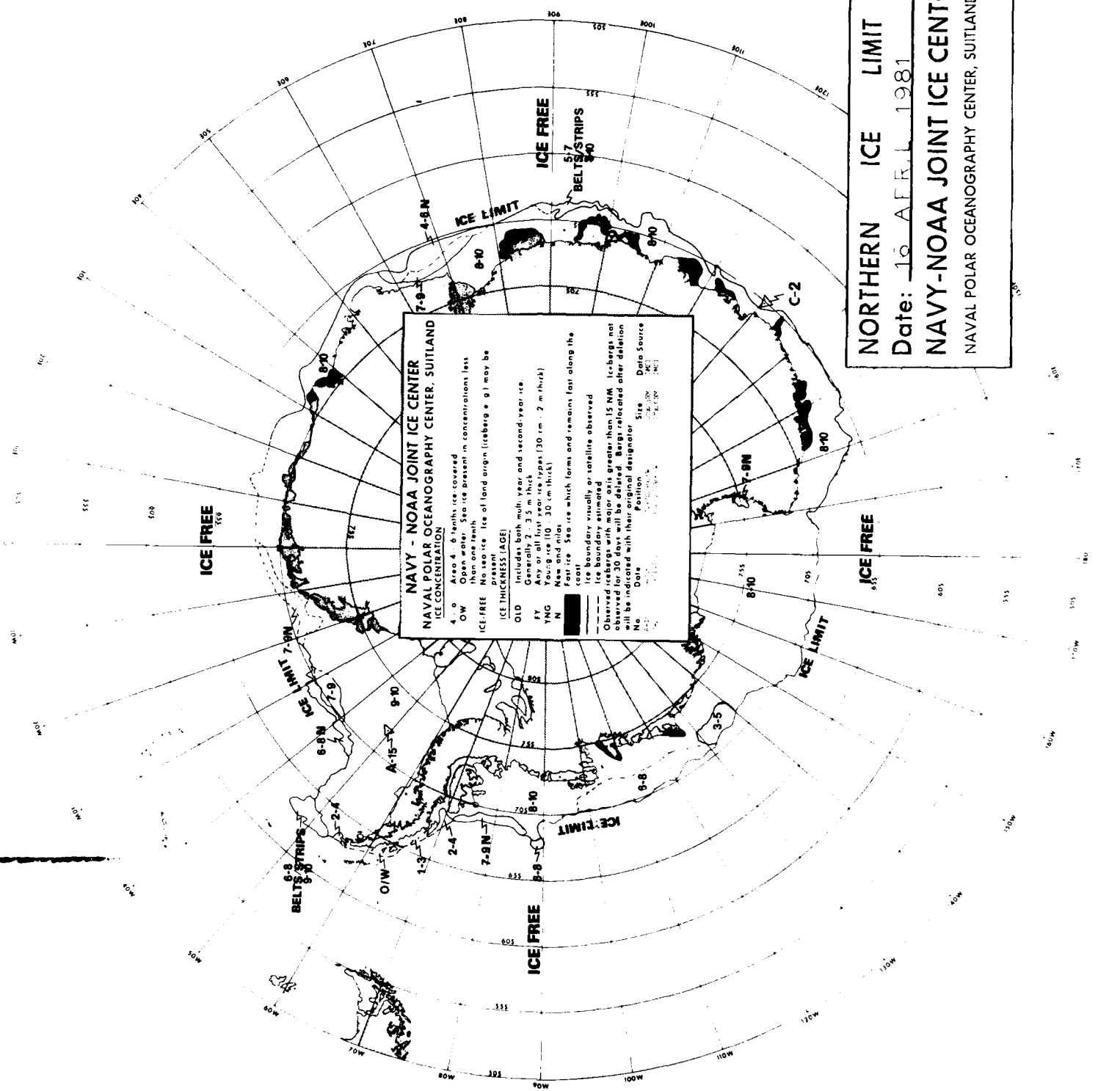
ICE LIMIT

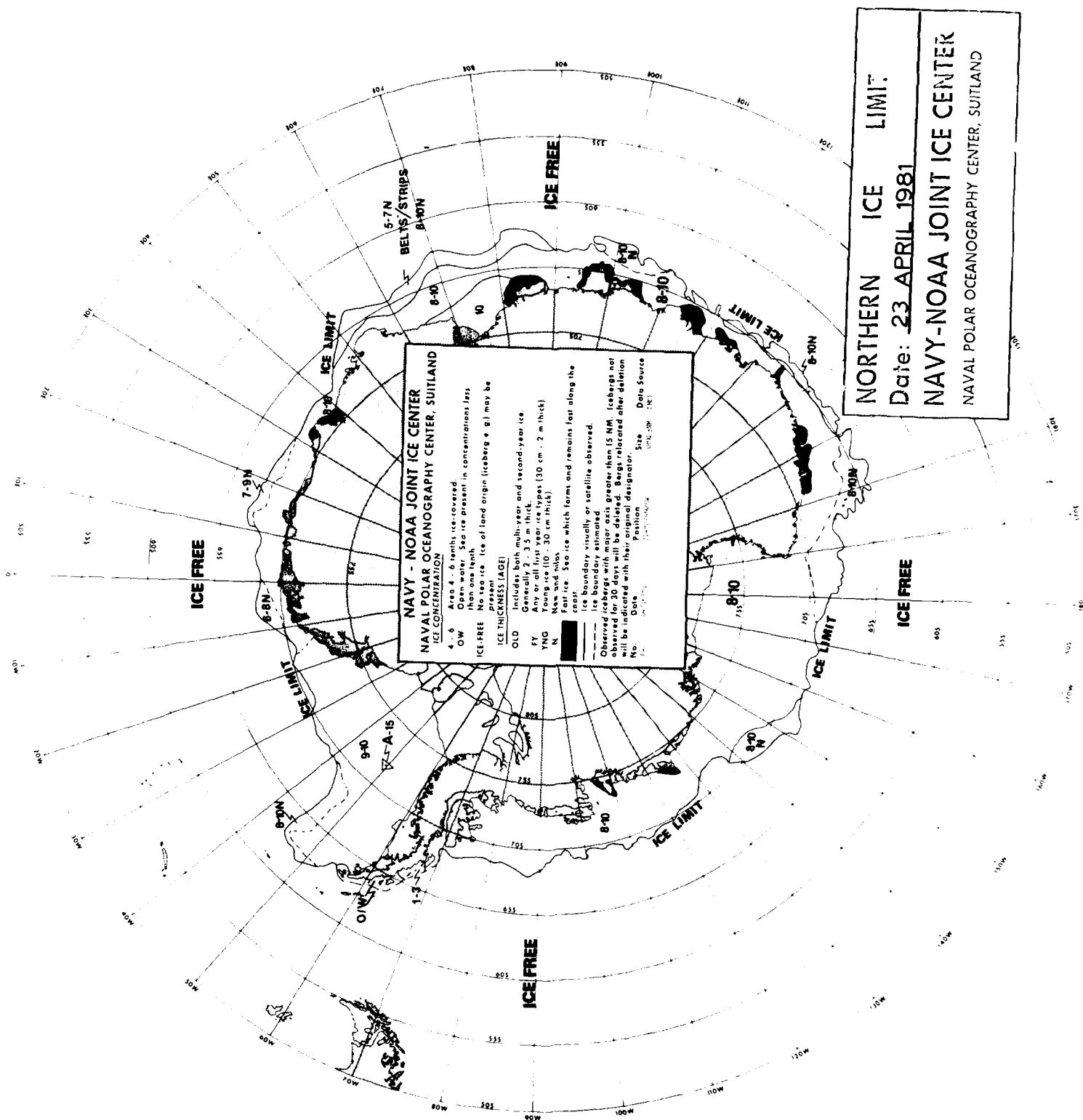
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Ice boundary estimated
Observed limits with major axis greater than 15 NM. Icebergs not observed for 30 NM. Icebergs not observed after deletion will be indicated with their original designation

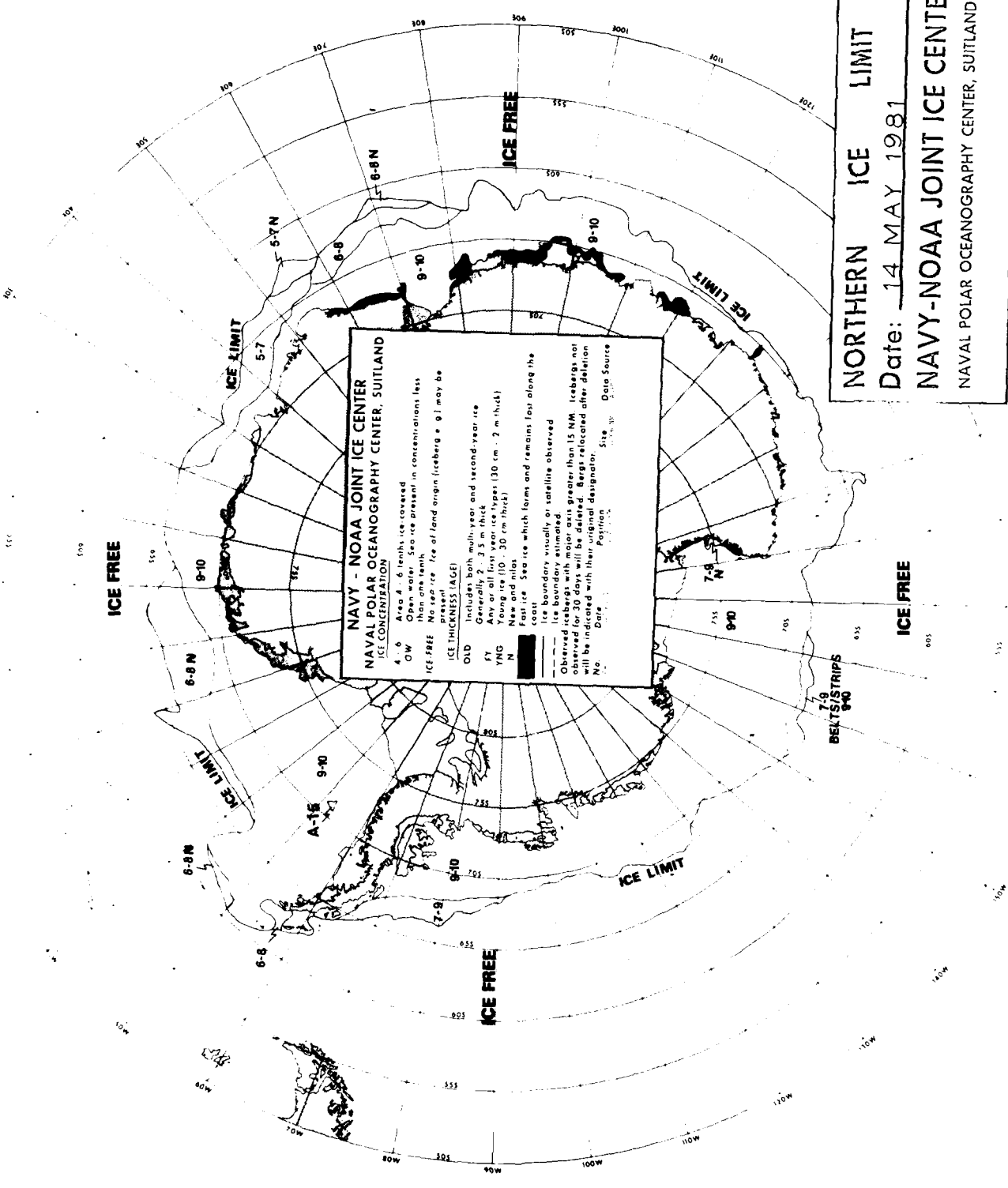
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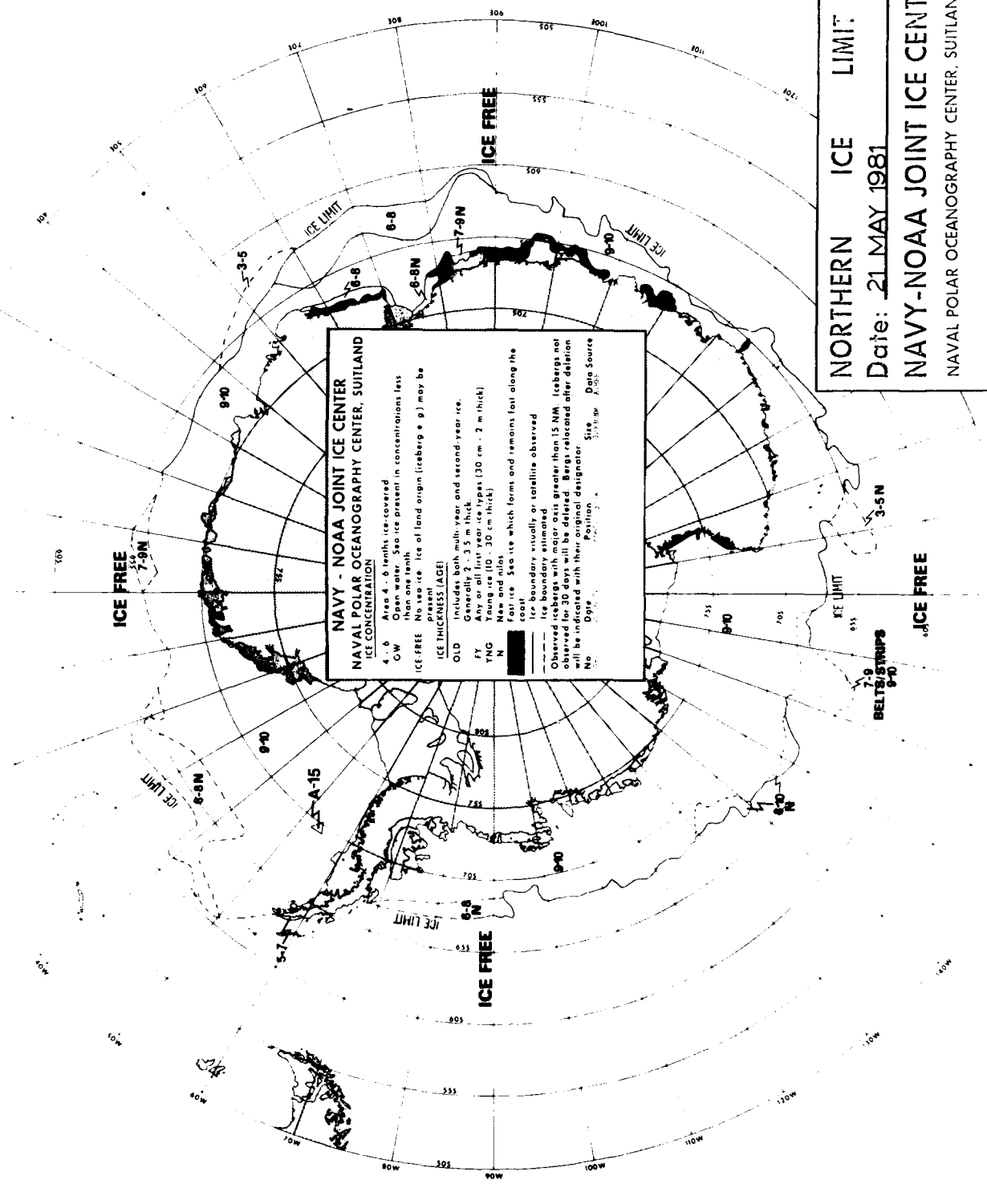
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Date: 16 APRIL 1981
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND







NORTHERN ICE LIMIT
 Date: 14 MAY 1981
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND



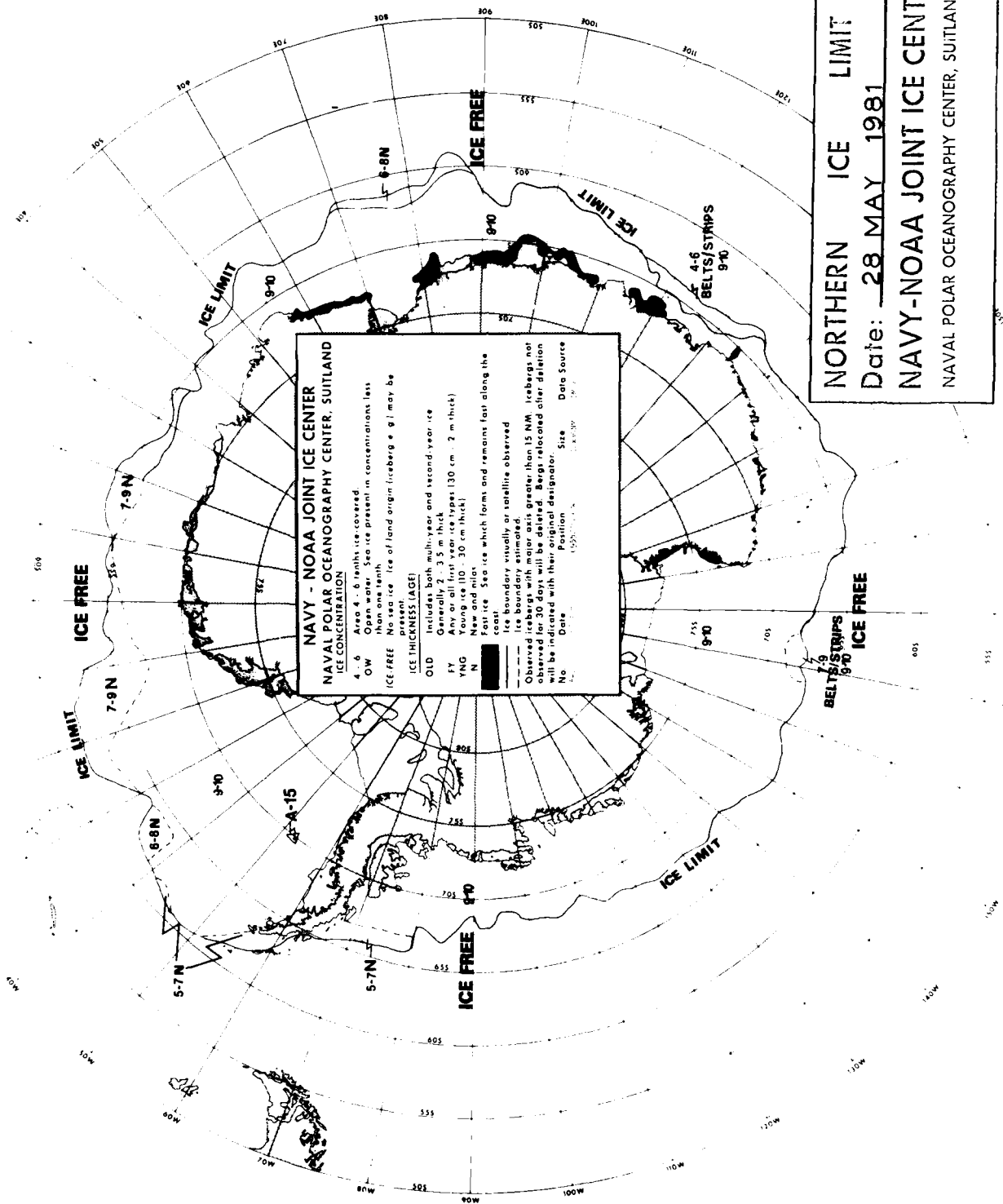
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION
 4-6 Area 4 - 6 tenths ice-covered
 O/W Open water. Sea ice present in concentrations less than one tenth
 ICE FREE No sea ice. Ice of land origin (iceberg e.g.) may be present

ICE THICKNESS (AGE)
 OLD Includes both multi-year and second-year ice.
 Generally 2 - 3.5 m thick
 FY Any or all first year ice types (30 cm - 2 m thick)
 YG Young ice (less than 30 cm thick)
 N New ice (less than 30 cm thick)
 Fast ice Sea ice which forms and remains fast along the coast

ICE LIMIT
 Ice boundary visually or satellite observed
 Ice boundary estimated
 Observed icebergs with major axis greater than 15 NM. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with their original designator. Size Data Source No Date Position

NORTHERN ICE LIMIT
 Date: **21 MAY 1981**
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



ICE FREE

1-2 BELTS/STRIPS 9-10

6-8 BELTS/STRIPS 9-10

8-8N

5-7N

A-15

9-10

ICE FREE

ICE FREE

9-10

8-8N

ICE LIMIT

9-10

ICE LIMIT

NORTHERN ICE LIMIT

Date: 04 JUNE 1981

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION

4-6 Area 4 - 6 tenths ice-covered
OW Open water. Sea ice present in concentrations less than one tenth.
ICE FREE No ice. Ice of land origin (iceberg or gl) may be present.

ICE THICKNESS (AGE)

OLD Includes both multi-year and second-year ice.
Generally 2 - 3.5 m thick.
FY Any or all first year ice types (30 cm - 2 m thick).
YNG Young ice (10 - 30 cm thick).
N New and nilot.

Fail ice Sea ice which forms and remains fast along the coast.

Ice boundary visually or satellite observed.

Ice boundary estimated.

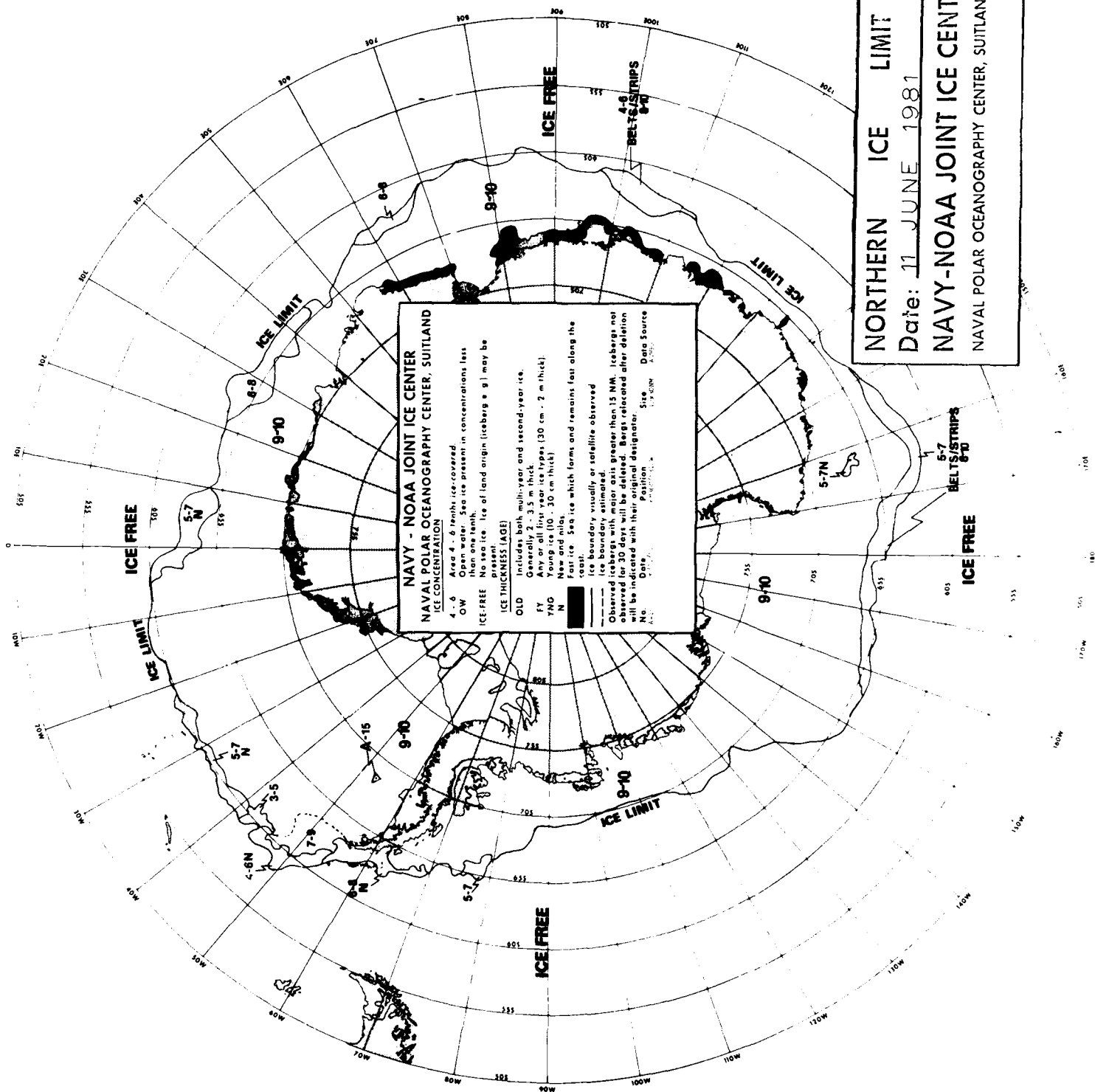
Observed iceberg with major axis greater than 15 NM. Iceberg not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with their original designator.

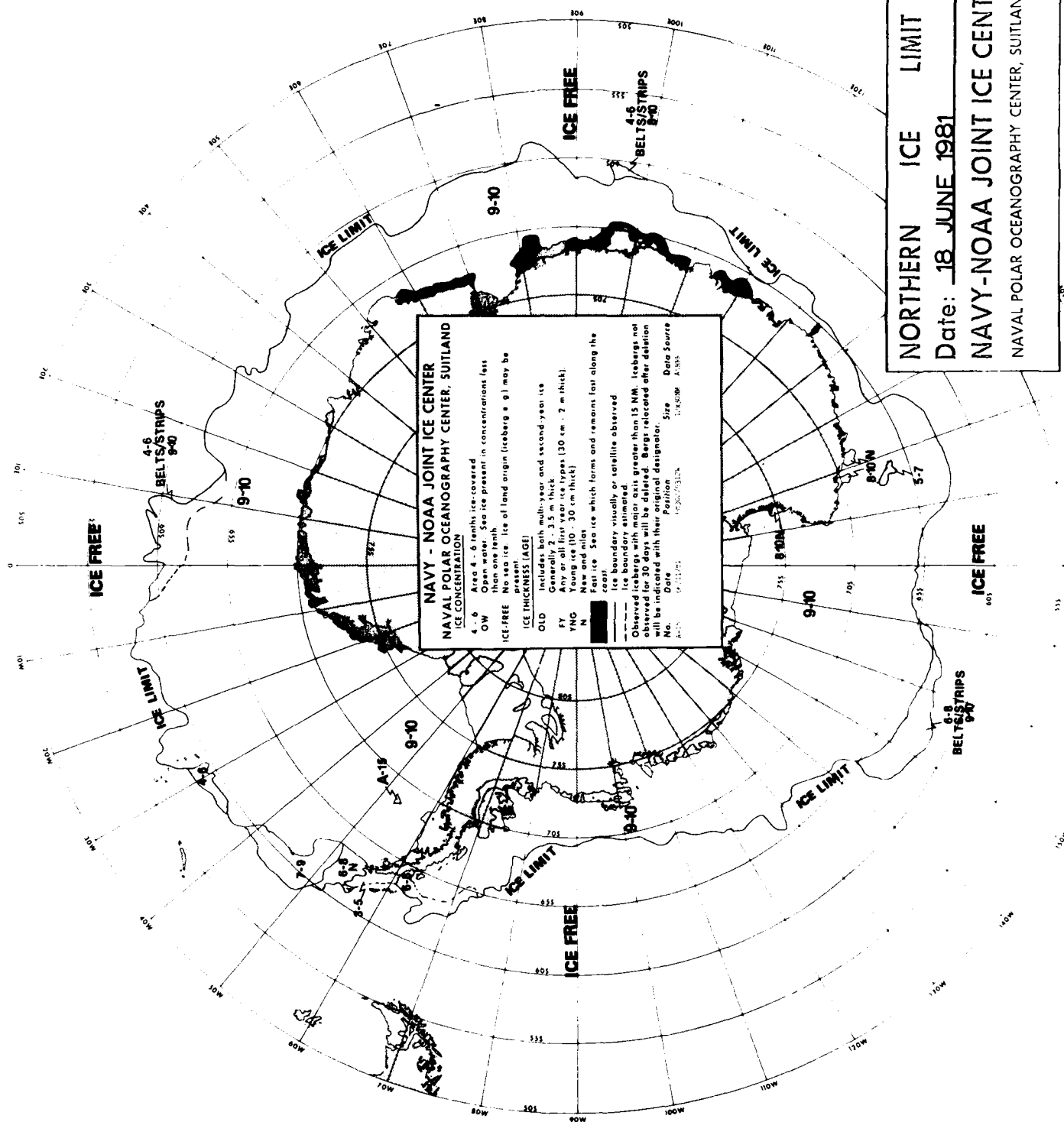
Py. Data Source

4-6 BELTS/STRIPS 9-10

ICE FREE

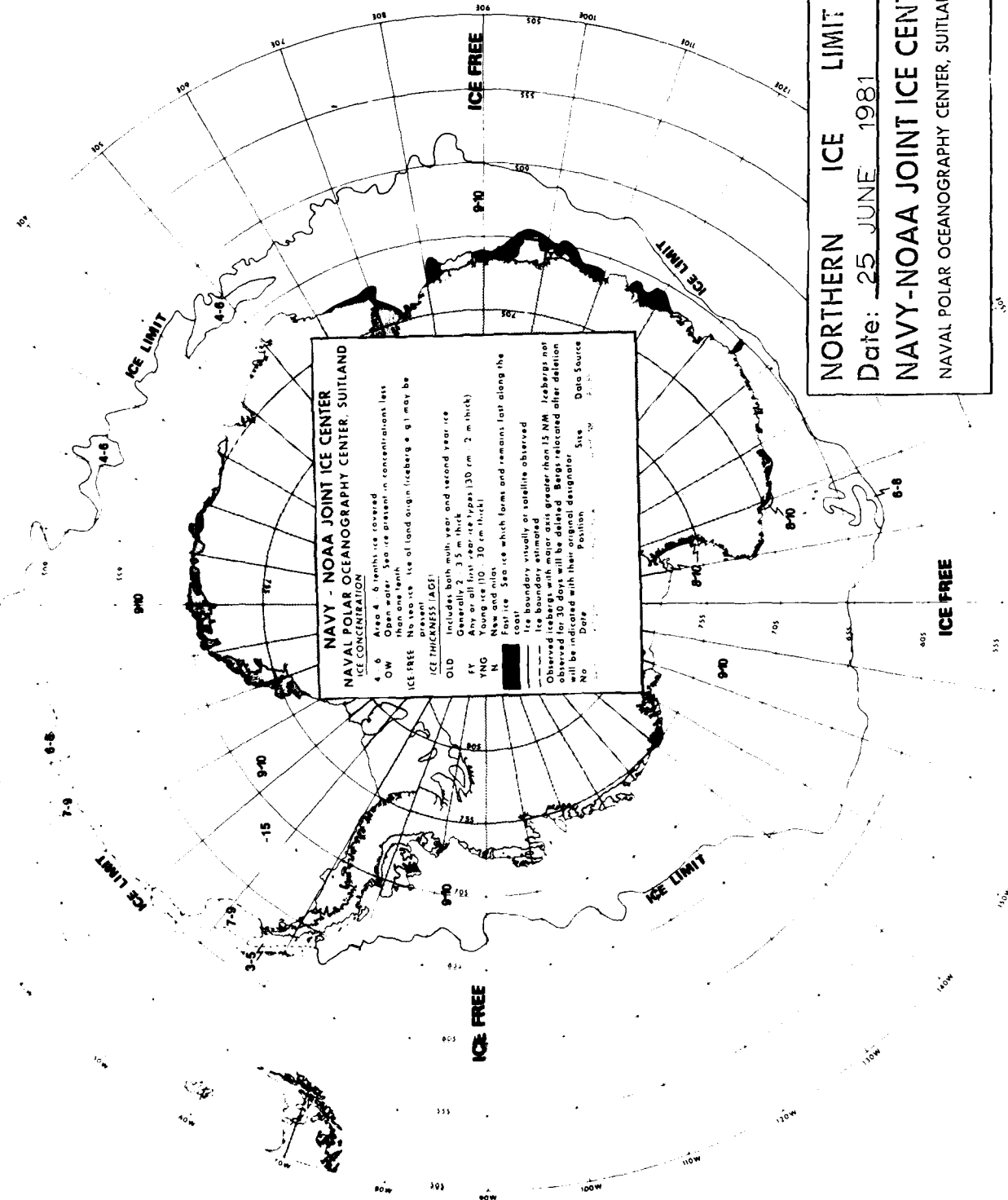
6-8 BELTS/STRIPS 9-10





NORTHERN ICE LIMIT
Date: **18 JUNE 1981**
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE



NORTHERN ICE LIMIT

Date: 25 JUNE 1981

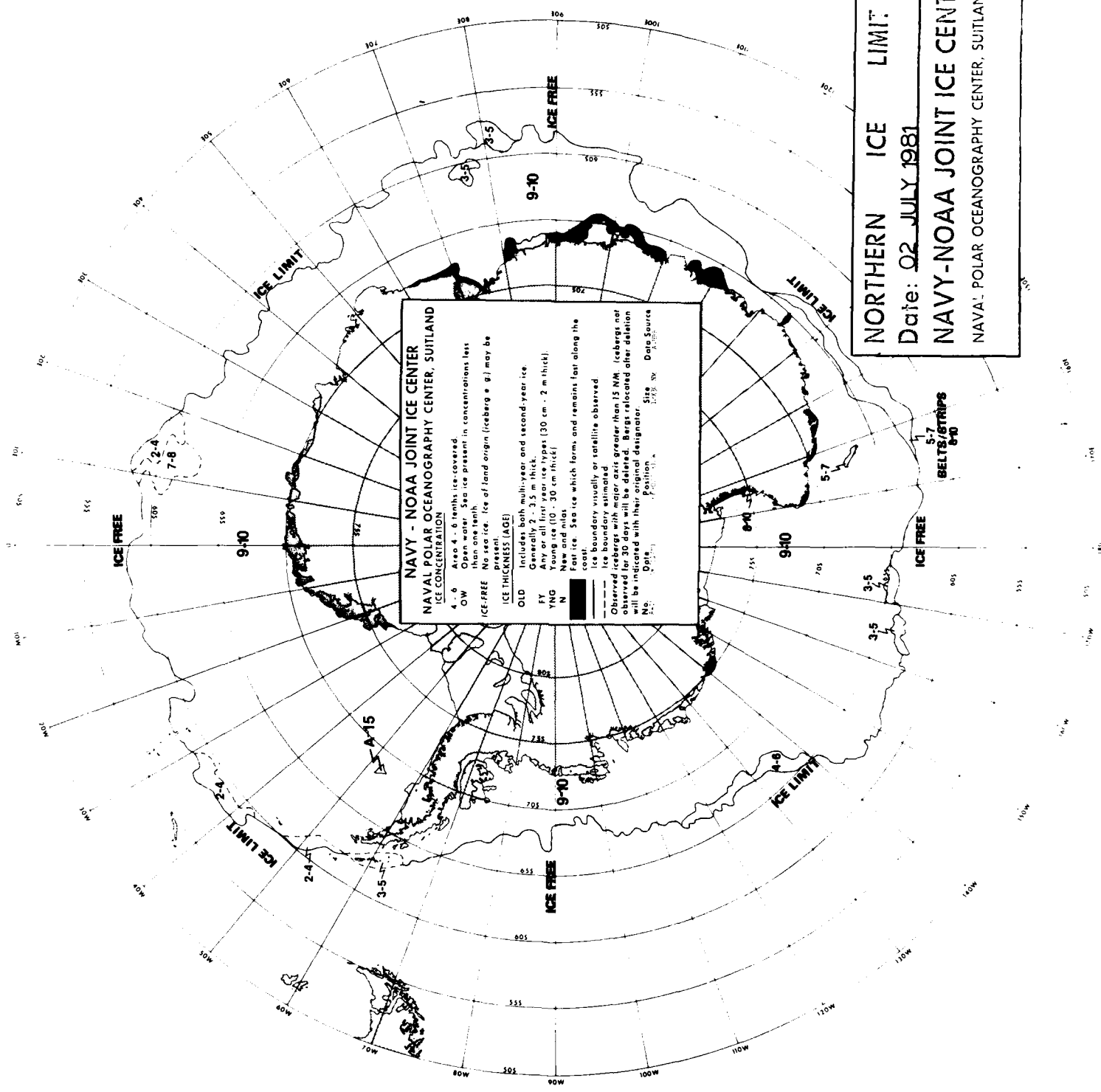
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NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

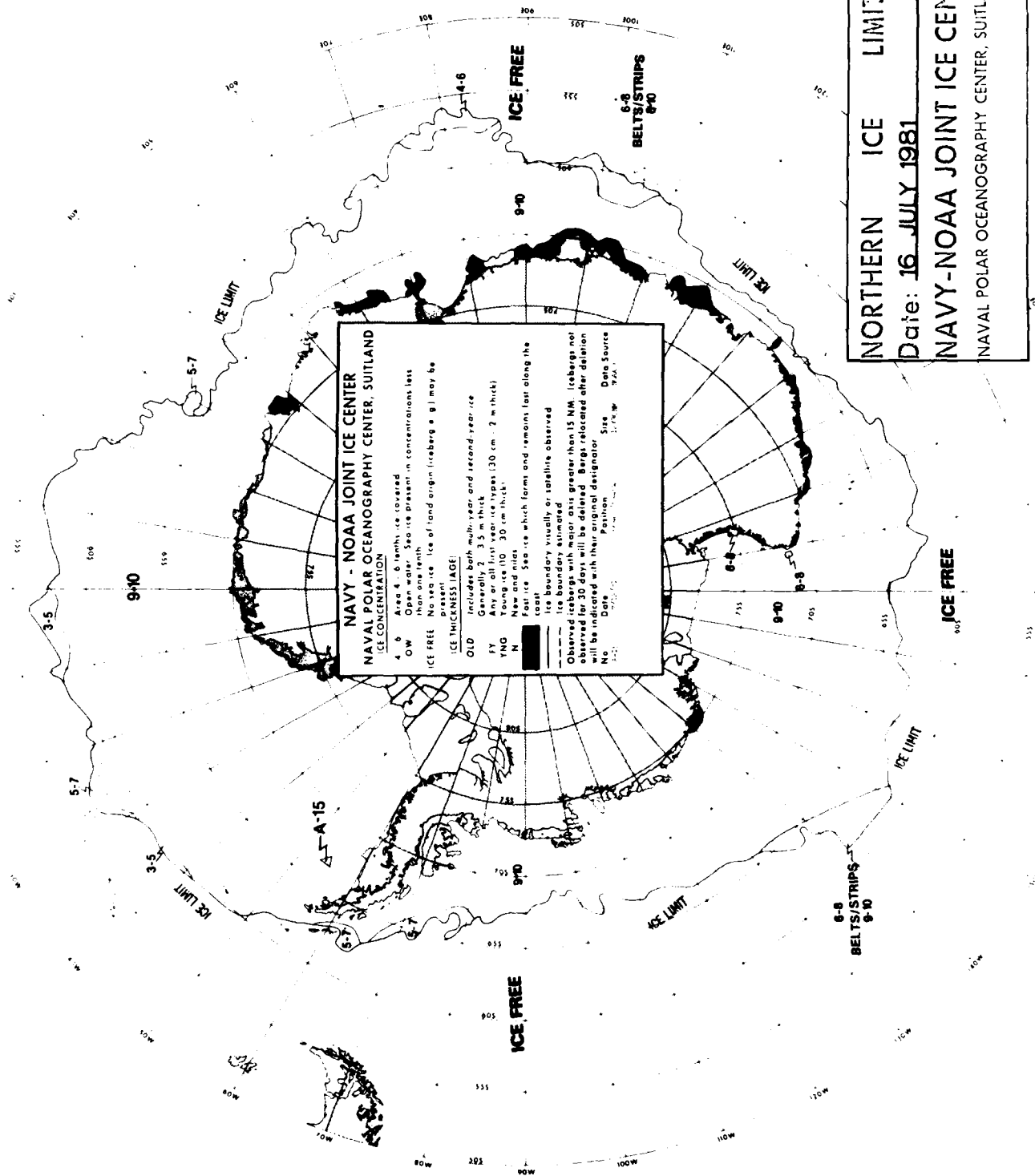
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION
 4-6 Area 4 - 6 tenths ice-covered.
 OW Open water. Sea ice present in concentrations less than 4 tenths.
 ICE-FREE No sea ice. Ice of land origin (iceberg a g) may be present.
ICE THICKNESS (AGE)
 OLD Includes both multi-year and second-year ice. Generally 2-3.5 m thick.
 FY First year ice. Young ice (10-30 cm thick).
 YNG Young ice (10-30 cm thick).
 N New and nilas.
 Fast ice Sea ice which forms and remains fast along the coast.
 Ice boundary visually or satellite observed.
 Ice boundary estimated.
 Observed icebergs greater than 15 NM. Icebergs not observed for 30 days will be deleted after deletion will be indicated with their original designation. Site No. Date Position Page of 10

NORTHERN ICE LIMIT
 Date: 02 JULY 1981
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



ICE FREE



NORTHERN ICE LIMIT

Date: 16 JULY 1981

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE

ICE LIMIT

9-10

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION
A 6 Area 4 - 6 tenths ice covered
OW Open water. Sea ice present in concentrations less than one tenth
ICE FREE No sea ice. Ice of land origin (iceberg & g) may be present
ICE THICKNESS (AGE)
OLD Includes both multi-year and second-year ice
Generally 2 - 3.5 m thick
FY Any or all first year ice types (30 cm - 2 m thick)
YNG Young ice (10 - 30 cm thick)
N New ice
Fall ice Sea ice which forms and remains fast along the coast
Ice boundary visually or satellite observed
Ice boundary estimated
Observed icebergs with major axis greater than 15 NM. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with their original designator.
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Position Size Data Source

ICE FREE

7-9 BELTS/STRIPS 9-10

ICE LIMIT

9-10

ICE LIMIT

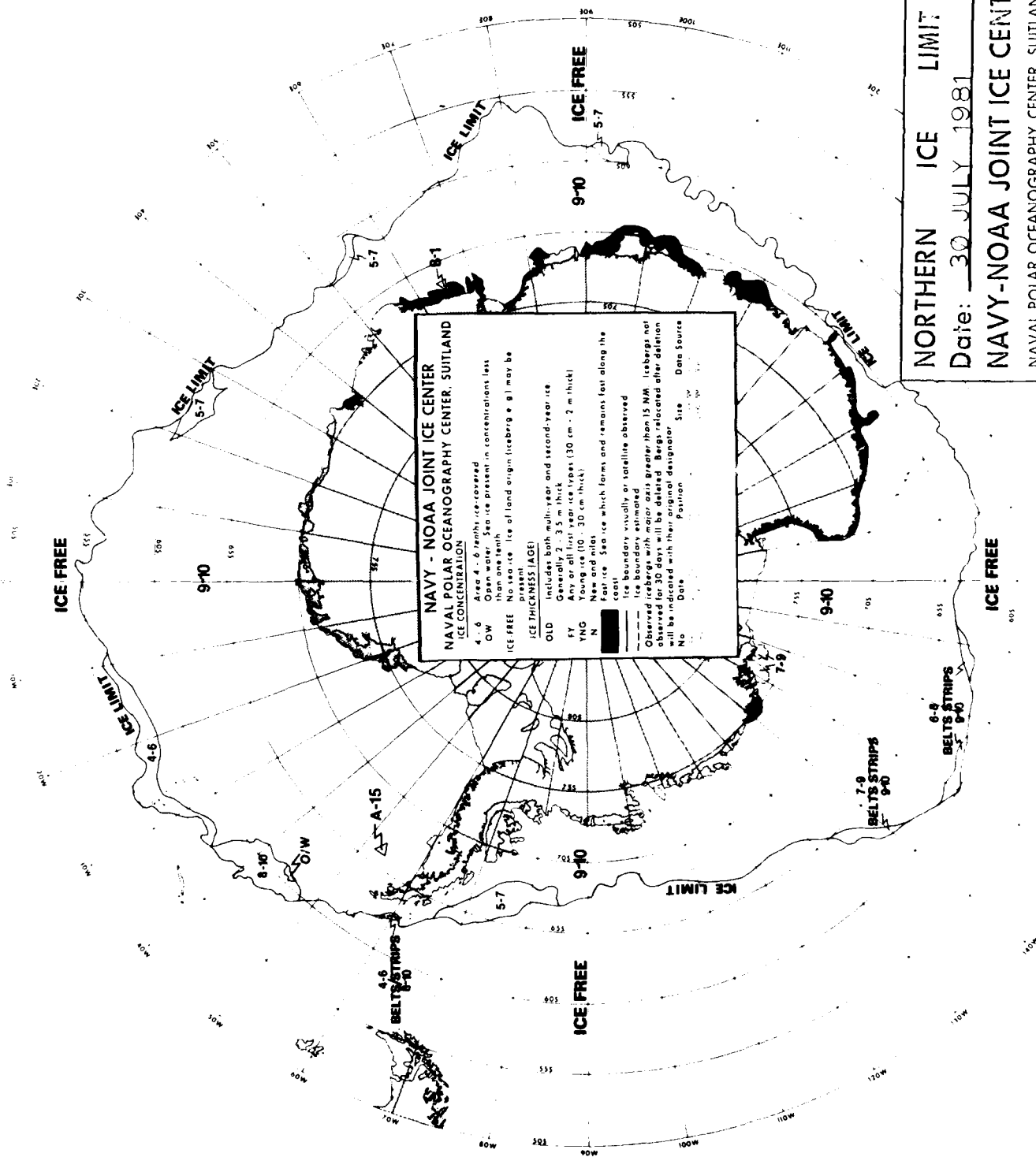
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5-7 BELTS/STRIPS 9-10

NORTHERN ICE LIMIT

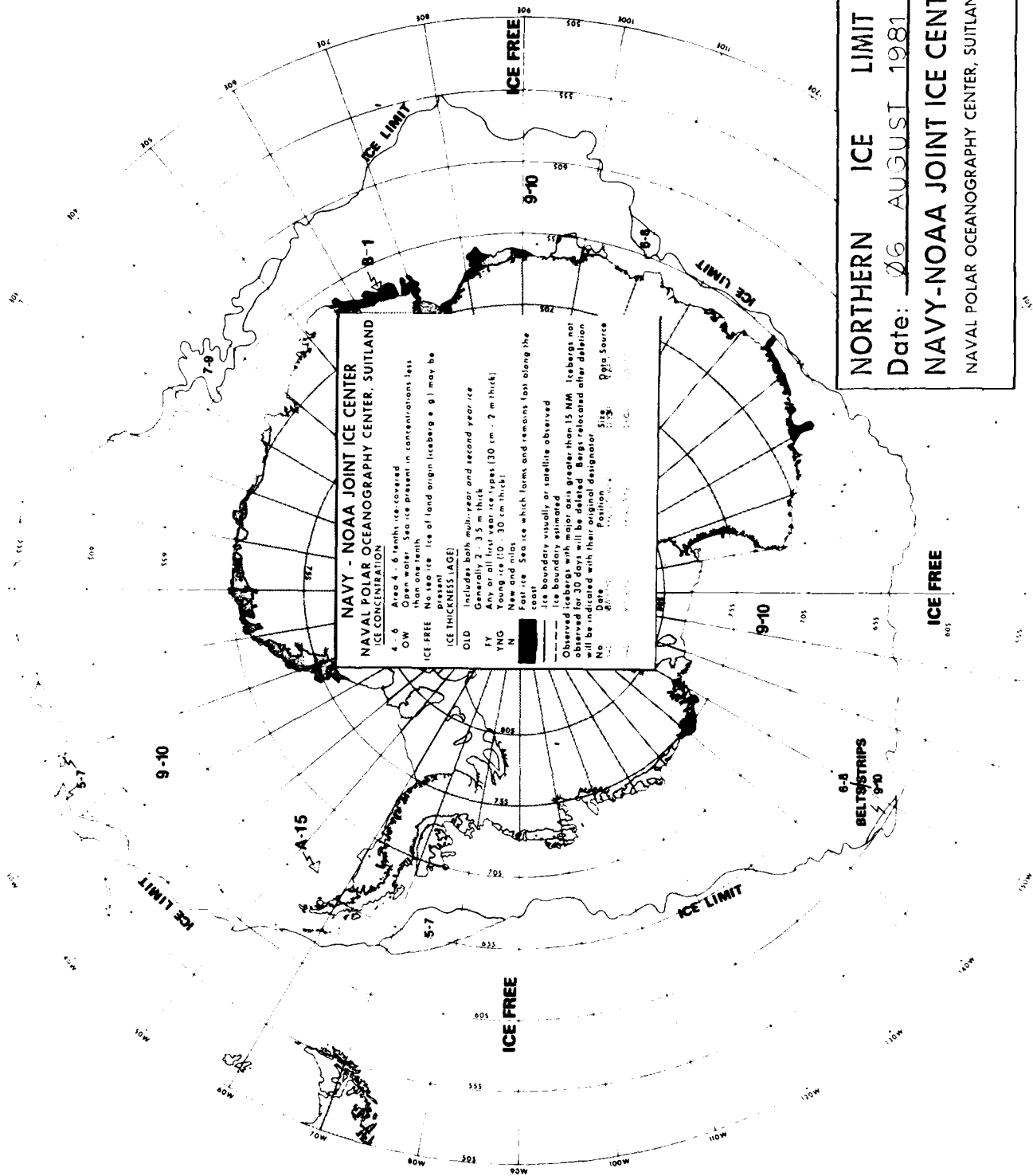
Date: 23 JULY 1981

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NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



NORTHERN ICE LIMIT
 Date: 30 JULY 1981
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE



NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION

4-6 Area 4 - 6 tenths ice-covered
OW Open water. Sea ice present in concentrations less than 4 tenths
ICE FREE No sea ice. Ice of land origin (iceberg & g) may be present

ICE THICKNESS (AGE)

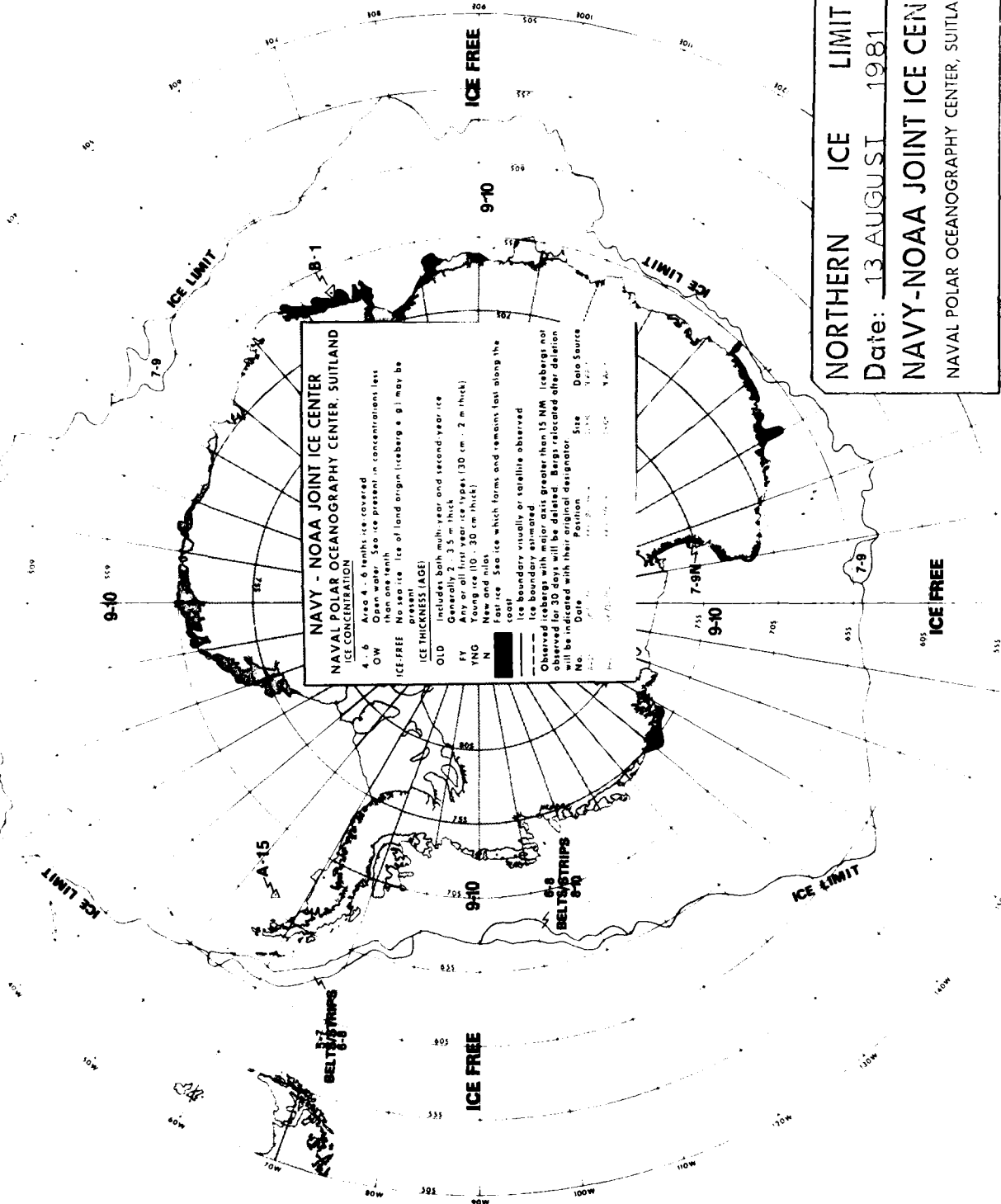
OLD Includes both multi-year and second year ice
Generally 2 - 3.5 m thick
FY Any or all first year ice types (10 cm - 2 m thick)
YNG Young ice (10 - 30 cm thick)
N New and nilas
Fast ice Sea ice which forms and remains fast along the coast

Ice boundary visually or satellite observed
Ice boundary estimated
Observed icebergs greater than 15 NM. Icebergs not observed for 30 days will be deleted. Icebergs reported after deletion will be indicated with their original designation.

No.	Date	Position	Size	Page	Source
1	8/1/81	70°N 150°W	100	1	NOAA
2	8/2/81	75°N 140°W	150	2	NOAA
3	8/3/81	80°N 130°W	200	3	NOAA
4	8/4/81	85°N 120°W	250	4	NOAA
5	8/5/81	90°N 110°W	300	5	NOAA
6	8/6/81	95°N 100°W	350	6	NOAA
7	8/7/81	100°N 90°W	400	7	NOAA
8	8/8/81	105°N 80°W	450	8	NOAA
9	8/9/81	110°N 70°W	500	9	NOAA
10	8/10/81	115°N 60°W	550	10	NOAA

NORTHERN ICE LIMIT
Date: 06 AUGUST 1981
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE

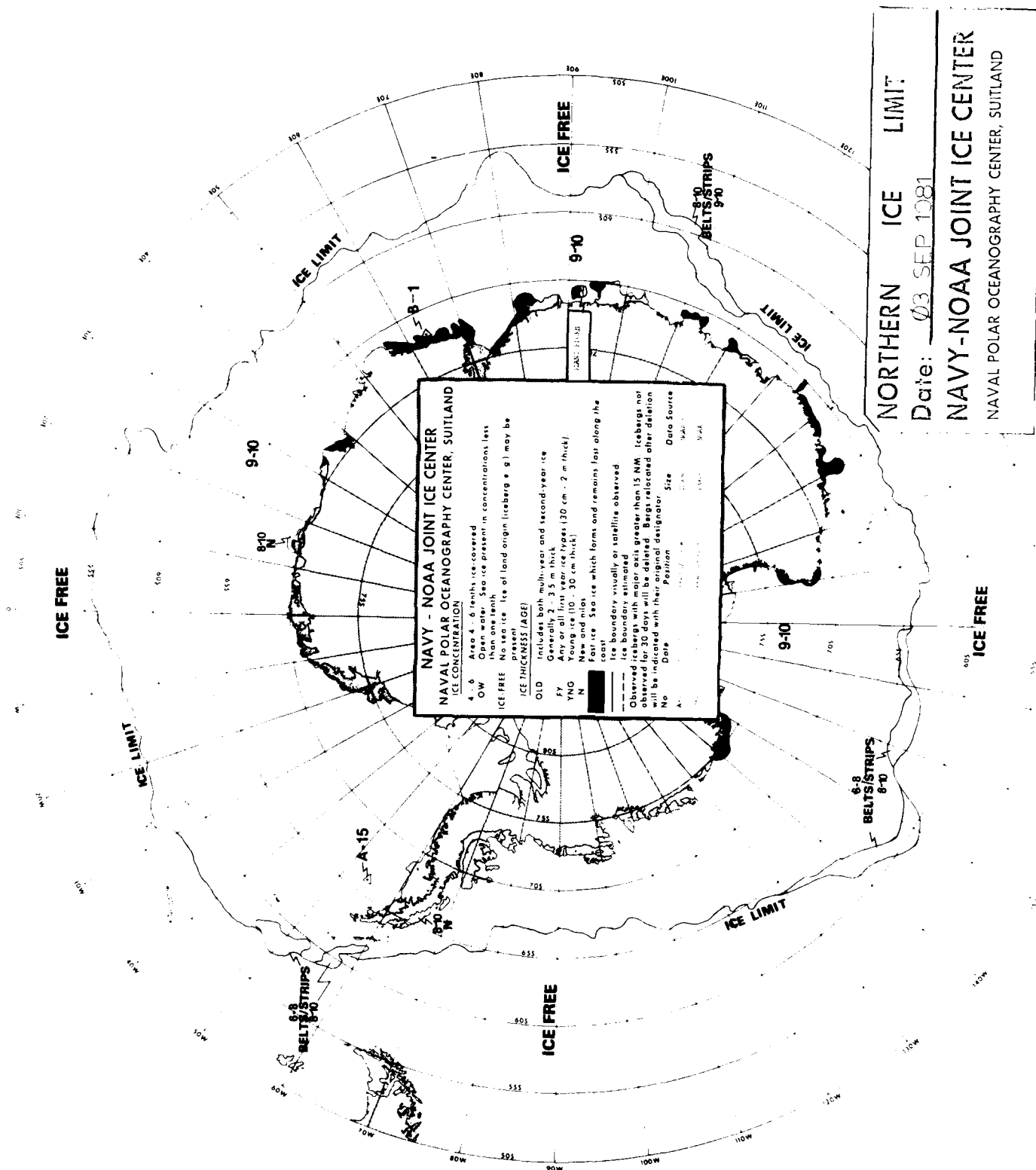


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Date: 13 AUGUST 1981

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

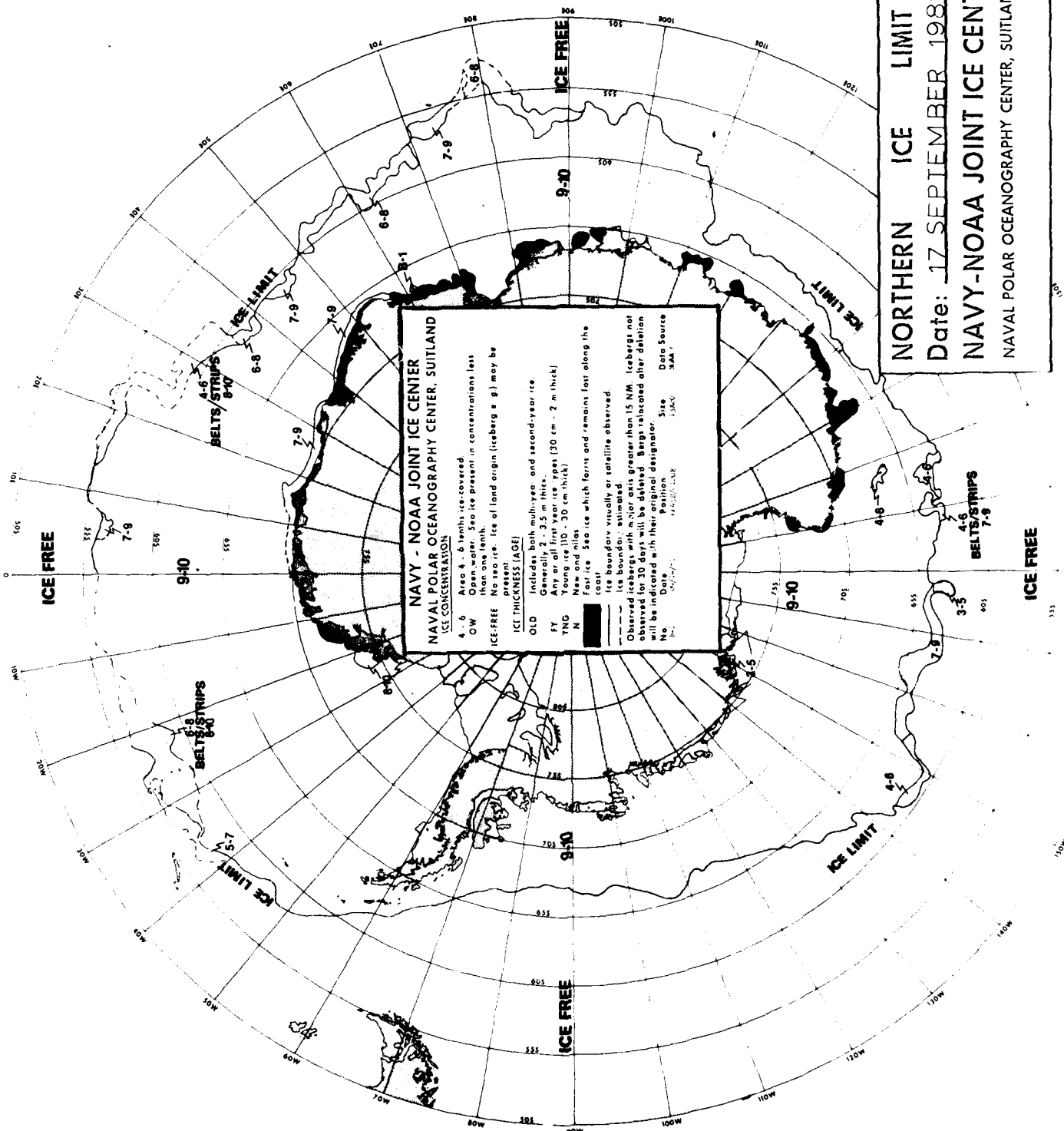


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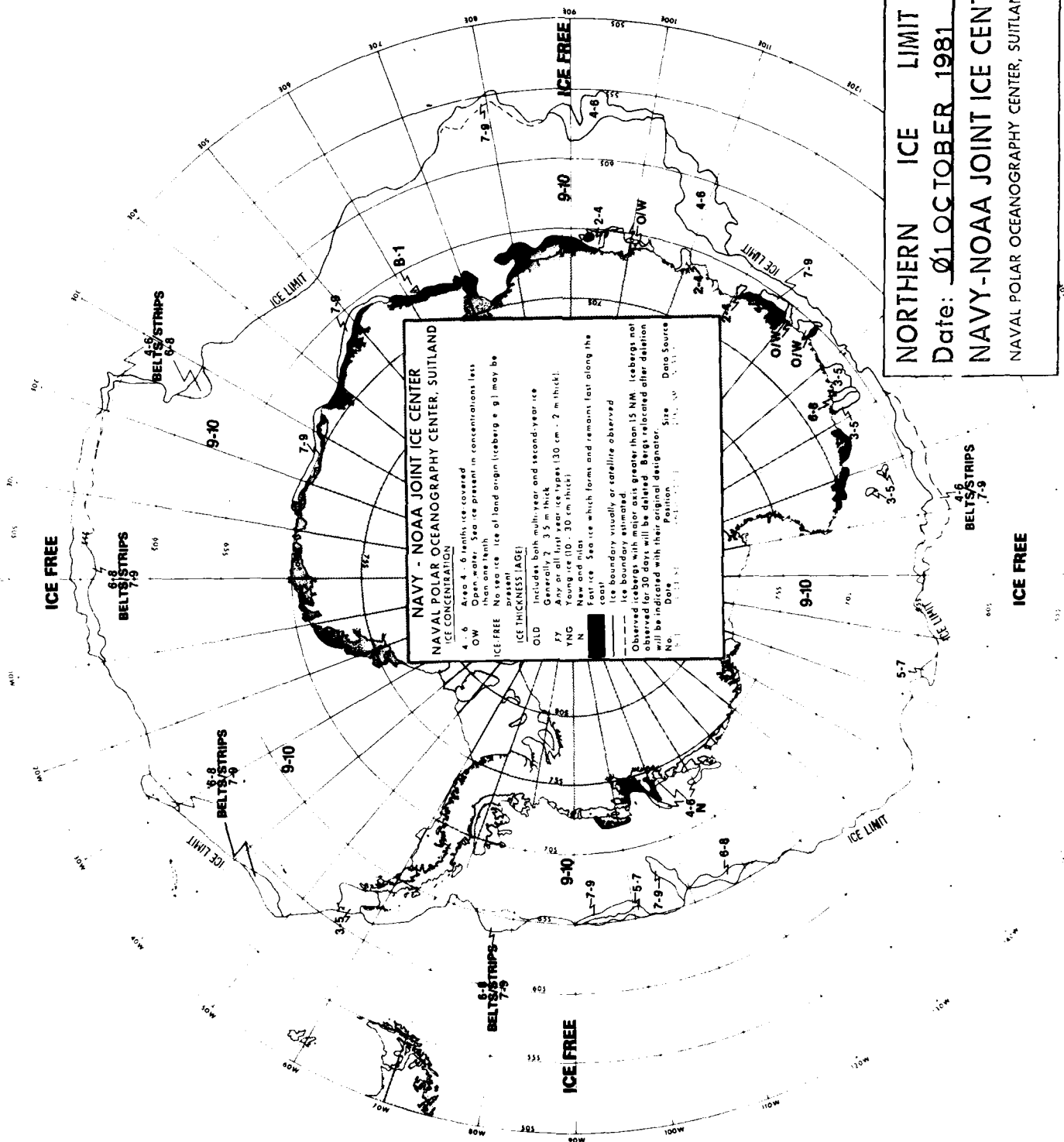
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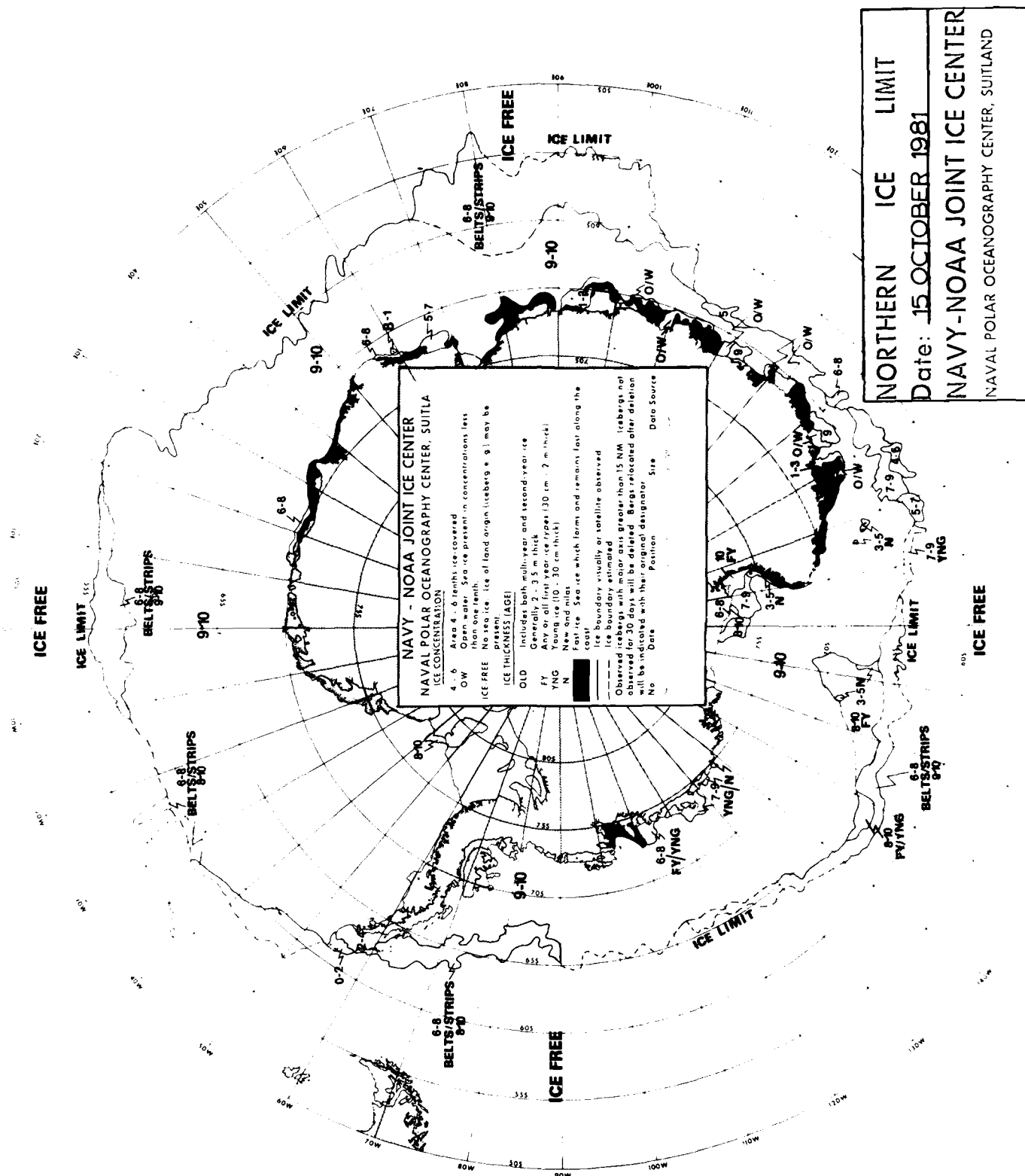
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NORTHERN ICE LIMIT
 Date: 17 SEPTEMBER 1981
NAVY-NOAA JOINT ICE CENTER
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ICE FREE

BELTS/STRIPS
8-10

ICE LIMIT
BELTS/STRIPS
8-10

4-6
BELTS/STRIPS
8-10

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

ICE CONCENTRATION
4-6 Area 4 - 6 tenths ice covered
OW Observed sea ice present in concentrations less than one tenth
ICE FREE No sea ice. Ice of land origin (iceberg or gl) may be present
ICE THICKNESS (AGE)
OLD Includes both multi-year and second year ice
Generally 2 - 3 m thick
FY Any or all first year ice (ages 30 cm - 3 m thick)
YNG Young ice (10 - 30 cm thick)
N New and nilas
Fast ice Sea ice which forms and remains fast along the coast
Ice boundary visually or satellite observed
Observed thickness greater than 15 NM. Icebergs not observed for 30 days will be deleted. Bergeis related after deletion will be indicated with their original designator.
No Date Position Size Data Source

ICE FREE

5-7
BELTS/STRIPS
7-9

ICE LIMIT

ICE FREE

NORTHERN ICE LIMIT

Date: 22 OCTOBER 1981

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

ICE FREE

BELTS/STRIPS

9-10

8-10

7-9

6-8

5-7

4-6

3-5

2-4

1-3

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE CONCENTRATION

4-6 Area 4-6 months ice covered

O/W Open water. Sea ice present in concentrations less

than one tenth

ICE FREE No sea ice. Ice of land origin (iceberg etc.) may be

present

ICE THICKNESS (AGE)

OLD Includes both multi-year and second year ice

Generally 2-3.5 m thick

NY Any or all first year ice (ages 1-30 m thick)

Young ice (ages 1-30 m thick)

Thin ice (ages 1-30 m thick)

Ice boundary visually or satellite observed

Ice boundary estimated

Observed icebergs with major axis greater than 15 NM (icebergs not

observed for 30 days will be deleted. Bergs relocated after deletion

will be indicated with their original designator. Size Data Source

Date Position

Size Data Source

Date Position

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NORTHERN ICE LIMIT
Date: 29 OCTOBER 1981
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE BELTS/STRIPS 2-4 7-9

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 7-9 8-10

ICE FREE

BELTS/STRIPS 7-9 8-10

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

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STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

ICE FREE

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

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STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

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BELTS/STRIPS 6-8 7-9

ICE FREE

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

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BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

STRIPS/BELTS 6-8 8-10

BELTS/STRIPS 6-8 7-9

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

ICE CONCENTRATION

4-6 Area 4-6 tenths ice covered
OW Open water Sea ice present in concentration less than one tenth present
ICE FREE No sea ice Ice of land origin (iceberg) may be present

ICE THICKNESS (AGE)

OLD Includes both multi-year and second year ice
FY Generally 2-3.5 m thick
Any or all first year ice types (30 cm 2 m thick)
TNG Young ice (10-30 cm thick)
N New and nilas
F First year ice Sea ice which forms and remains fast along the coast
Ice boundary visually or satellite observed
Ice boundary estimated
Observed icebergs with major axis greater than 15 NM Icebergs not observed for 30 days will be deleted Bergs relocated after deletion will be indicated with their original designator

No Date Position Size Data source

NORTHERN ICE LIMIT
Date: 12 NOVEMBER 1981
NAVY-NOAA JOINT ICE CENTER
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ICE FREE

BELTS/STRIPS
7-9
8-10

BELTS/STRIPS
8-9
7-9

BELTS/STRIPS
6-8
8-10

PITCHES
5-7
8-9

BELTS/STRIPS
2-4
3-5
4-6

BELTS/STRIPS
3-5
7-9

ICE FREE

ICE FREE

ICE LIMIT

ICE LIMIT

ICE FREE

BELTS/STRIPS
3-5
7-9

NORTHERN ICE LIMIT

Date: 10/1/79

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NAVY - NOAA JOINT ICE CENTER
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ICE CONCENTRATION

4-6 Area 4-6 km² ice covered

OW Open water. Sea ice present in concentrations less than one tenth.

ICE FREE No sea ice. Ice of land origin (iceberg or gl) may be present.

ICE THICKNESS (AGE)

OLD Includes both multi-year and second-year ice.

FY Generally 2-3.5 m thick.

NY Any or all first year ice types (10 cm - 2 m thick).

YNG Young ice 10 - 30 cm thick.

N New and nilas.

Fact ice Sea ice which forms and remains fast along the coast.

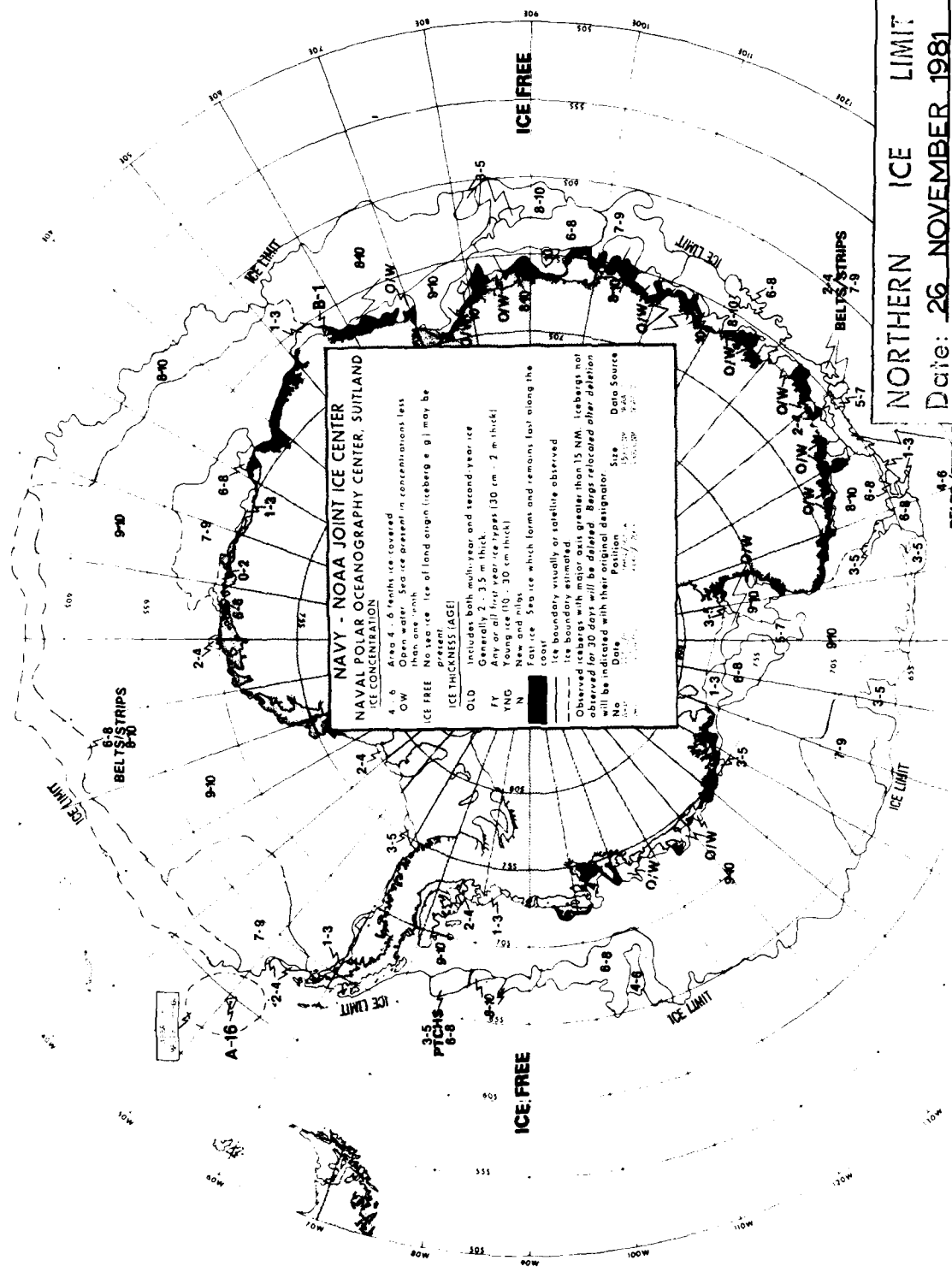
Ice boundary visually or satellite observed.

Ice boundary visually or satellite observed.

Observed icebergs with major axis greater than 15 NM. Icebergs not observed for 30 days will be deleted. Major icebergs after deletion will be indicated with their original designator.

No Date Position Size Data Source

ICE FREE



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ICE CONCENTRATION

A Any 4, 5, 6 fronts ice covered
OW Open water. Sea ice present in concentrations less than one inch
ICE FREE No sea ice. Ice of land origin (iceberg, etc.) may be present

ICE THICKNESS (AGE)

OLD Includes both multi-year and second-year ice
Generally 2 - 3.5 m thick
FY Any or all first year ice types (30 cm - 2 m thick)
YNG Young ice (10 - 30 cm thick)
N New and nilas
Fast ice Sea ice which forms and remains fast along the coast
Ice boundary visually as satellite observed
Ice boundary estimated
Observed icebergs with major axis greater than 15 NM. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with their original designator

No Data Source

Position

Size

Date

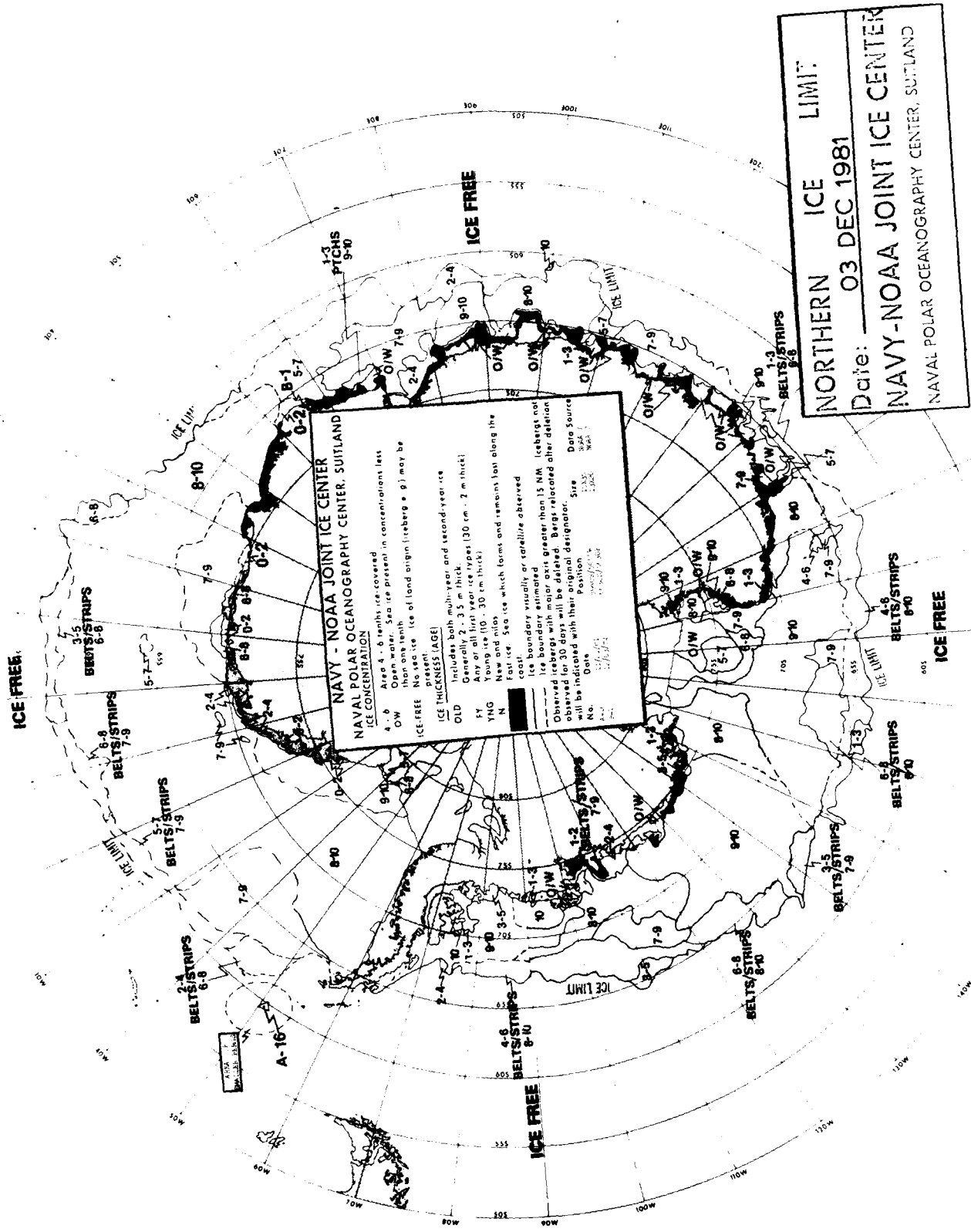
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NAVY-NOAA JOINT ICE CENTER

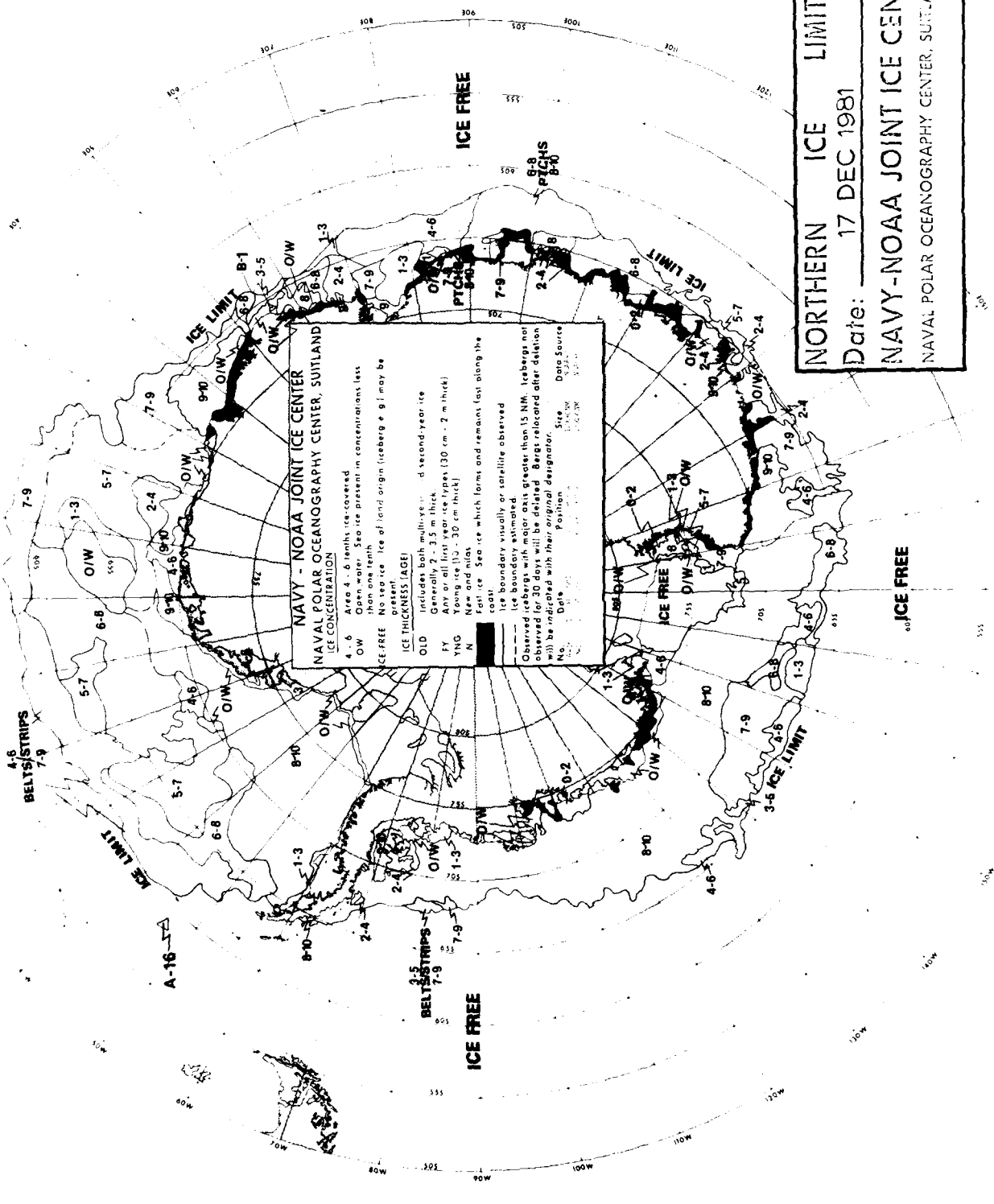
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ICE FREE



NORTHERN ICE LIMIT
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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

ICE FREE

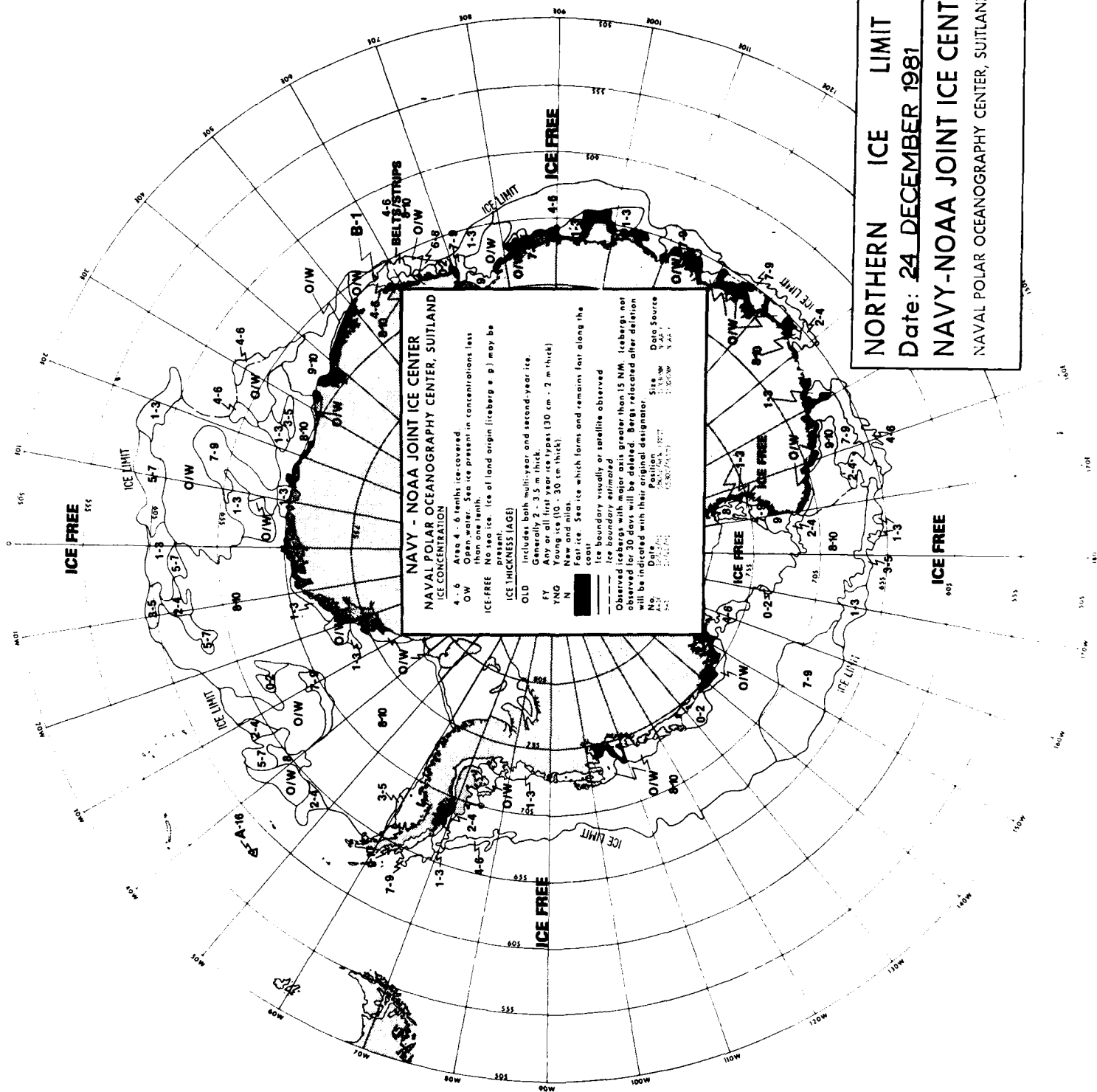


NORTHERN ICE LIMIT

Date: 17 DEC 1981

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

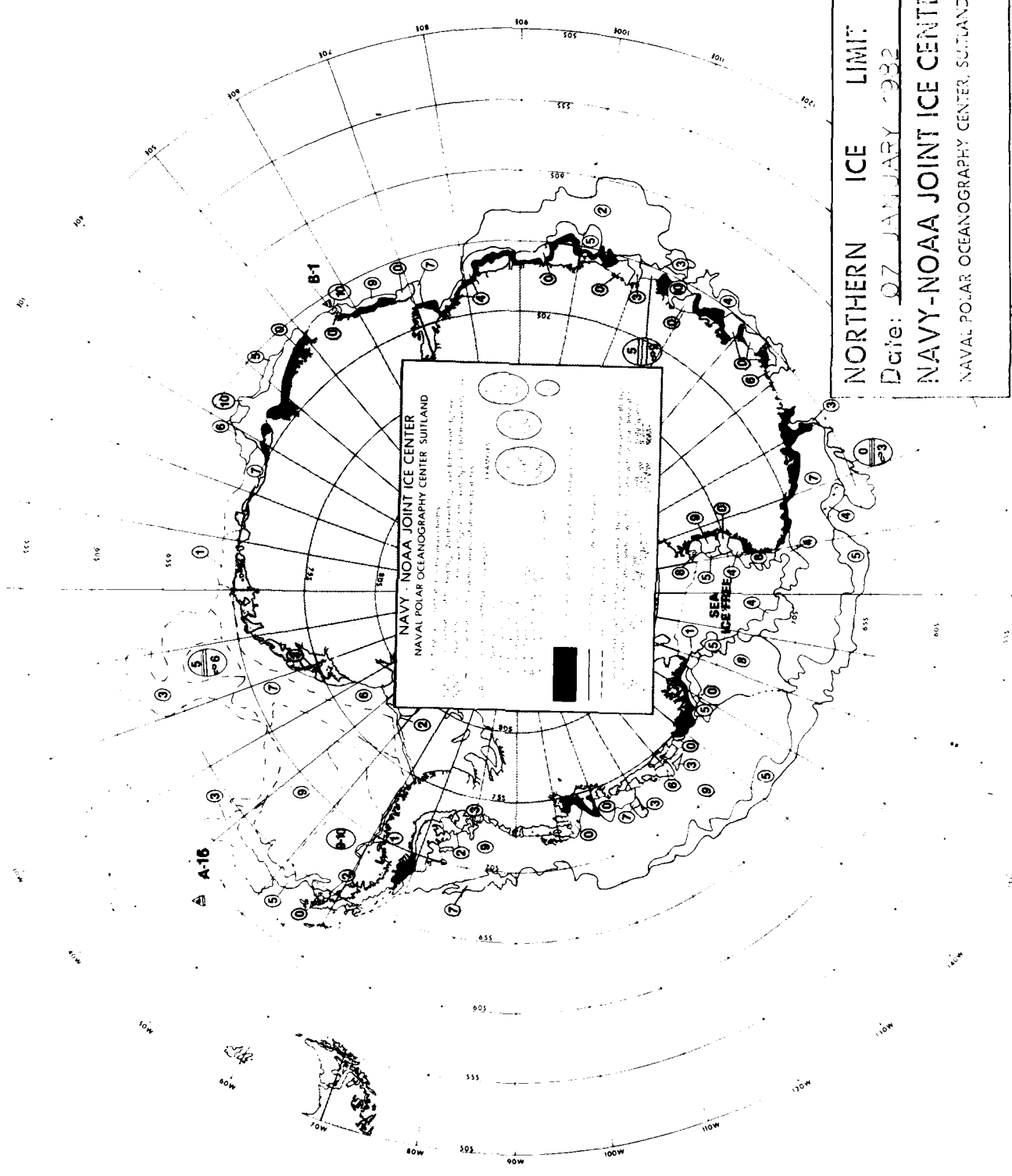


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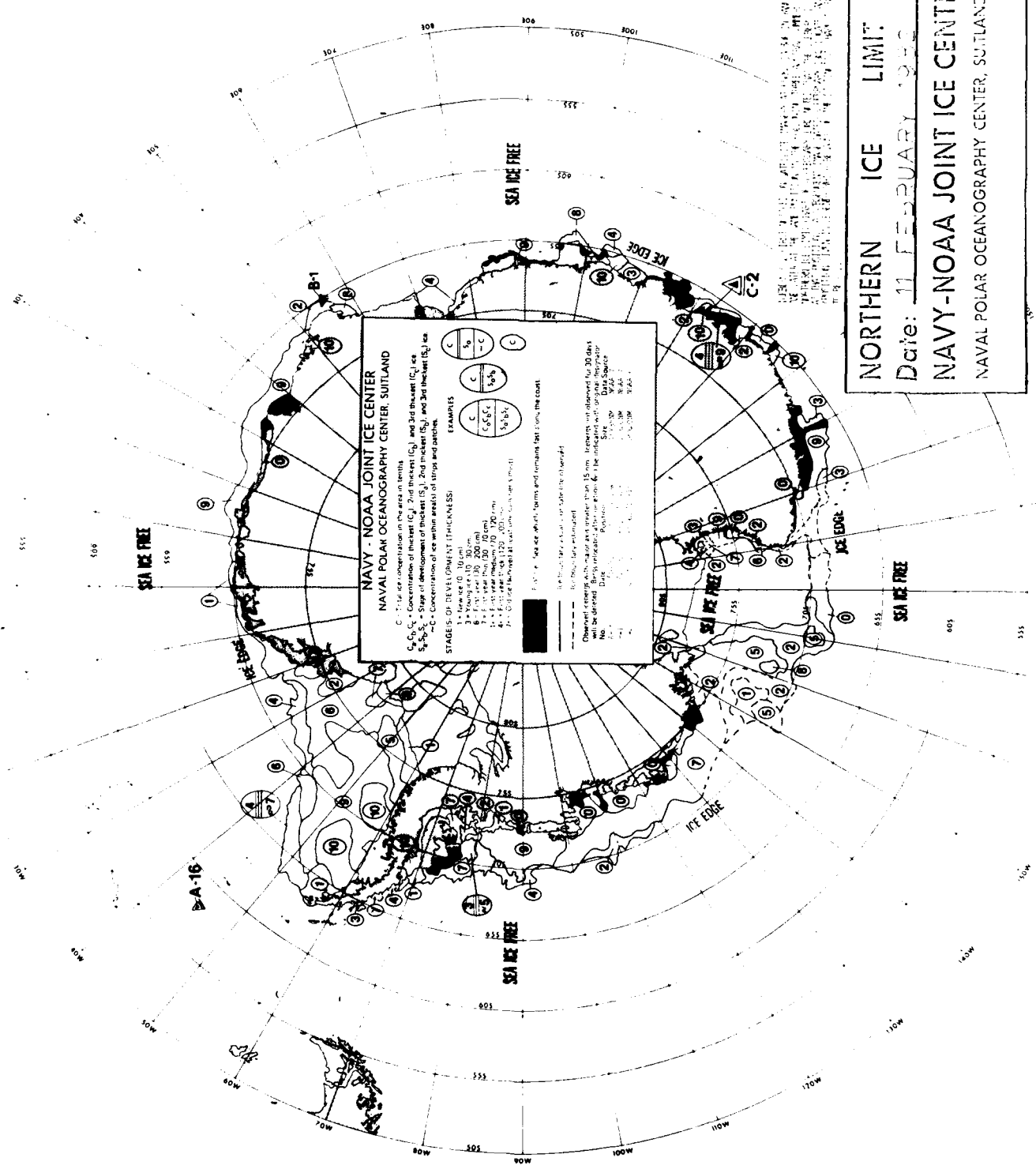
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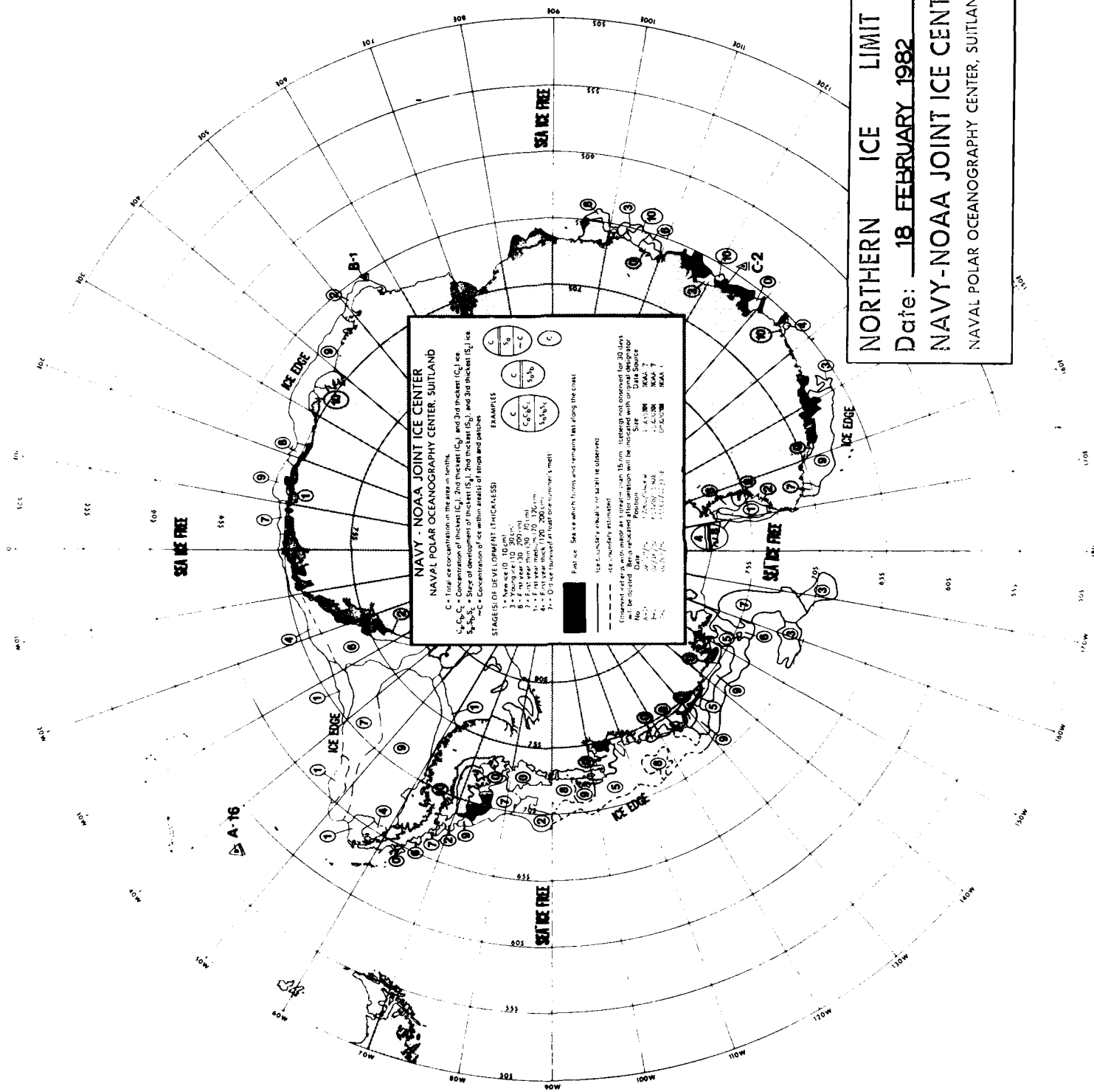
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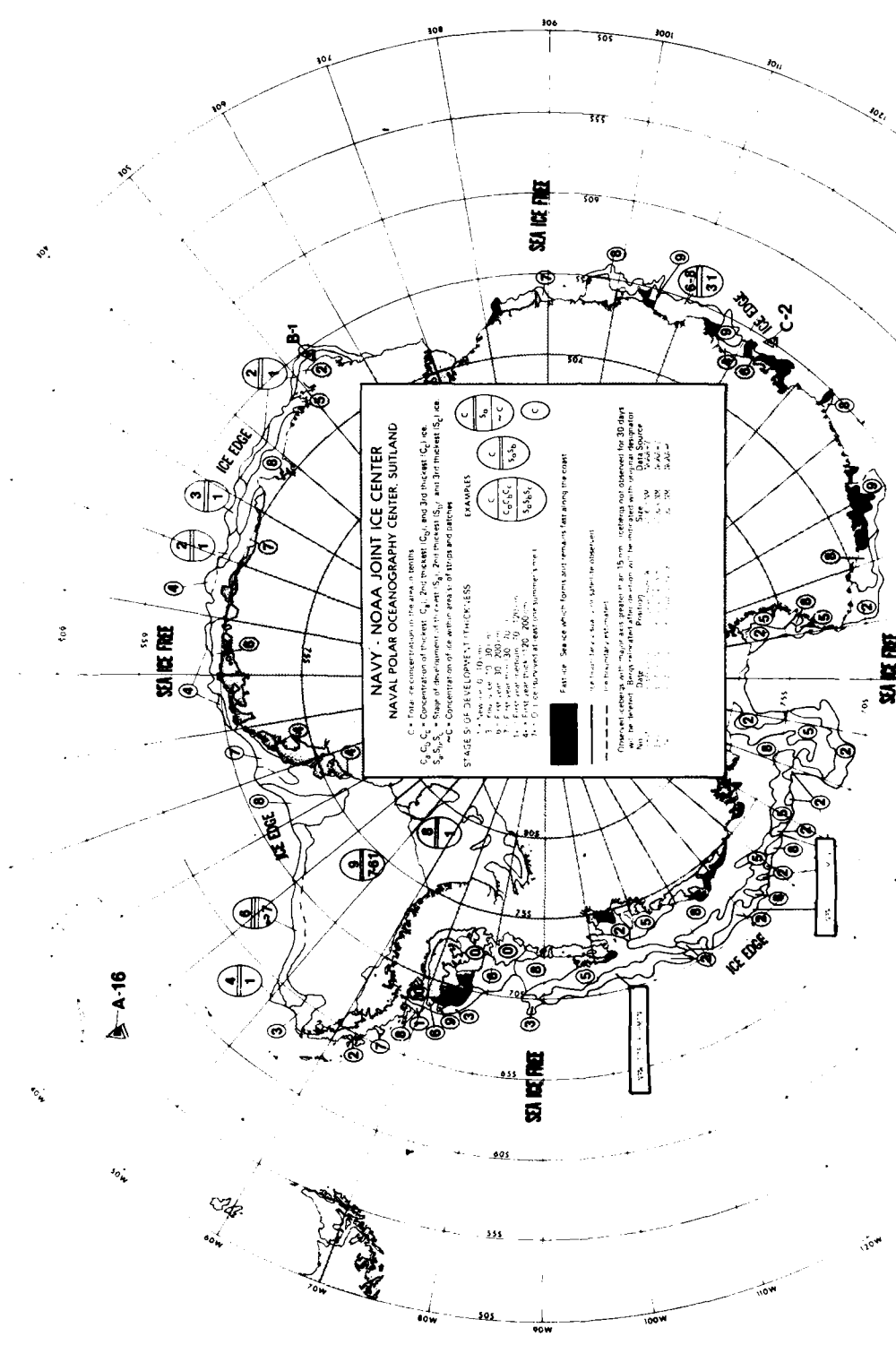
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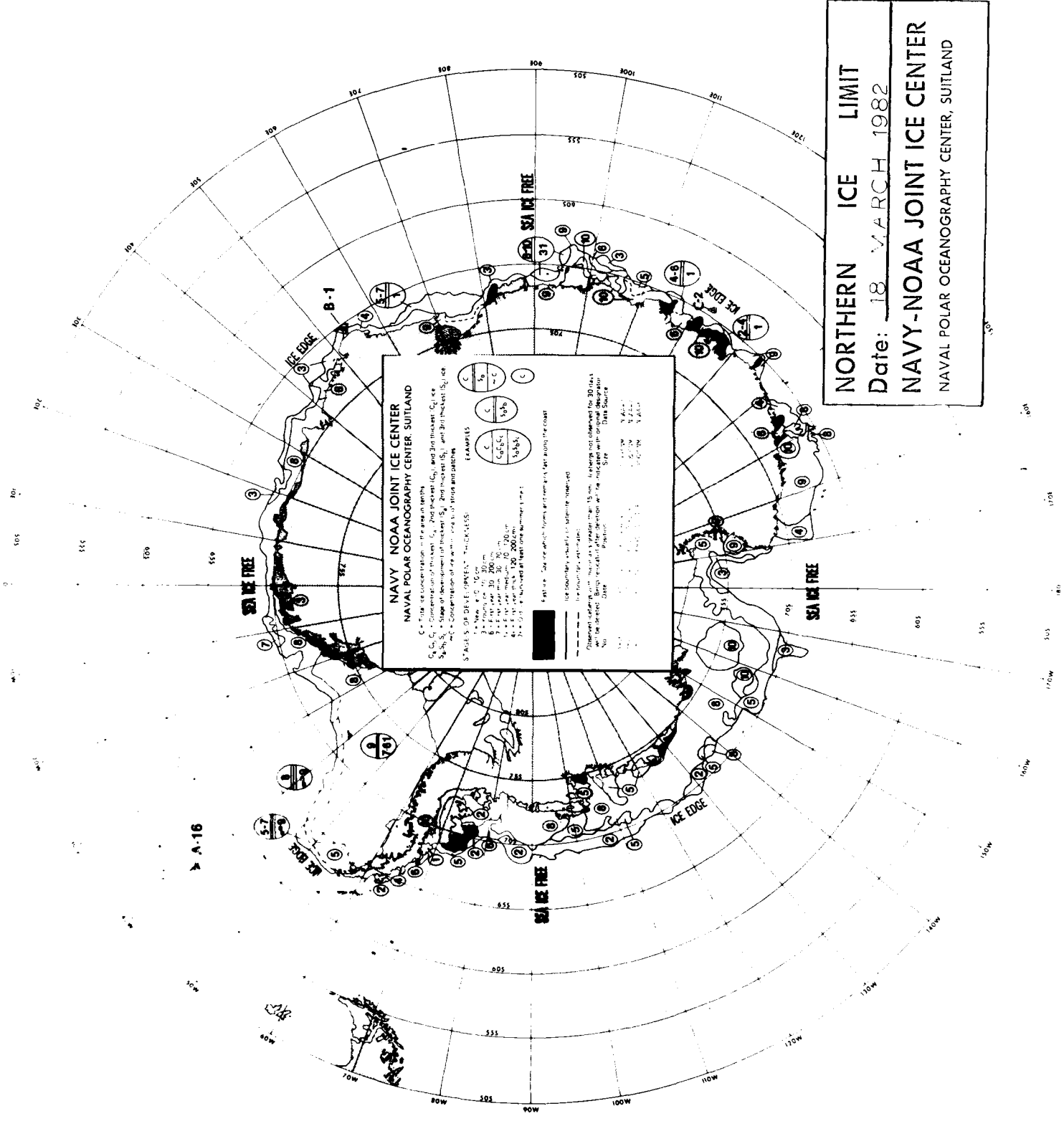
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NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND





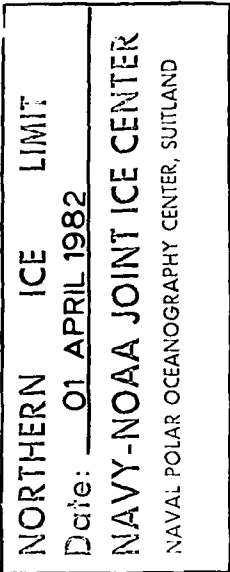


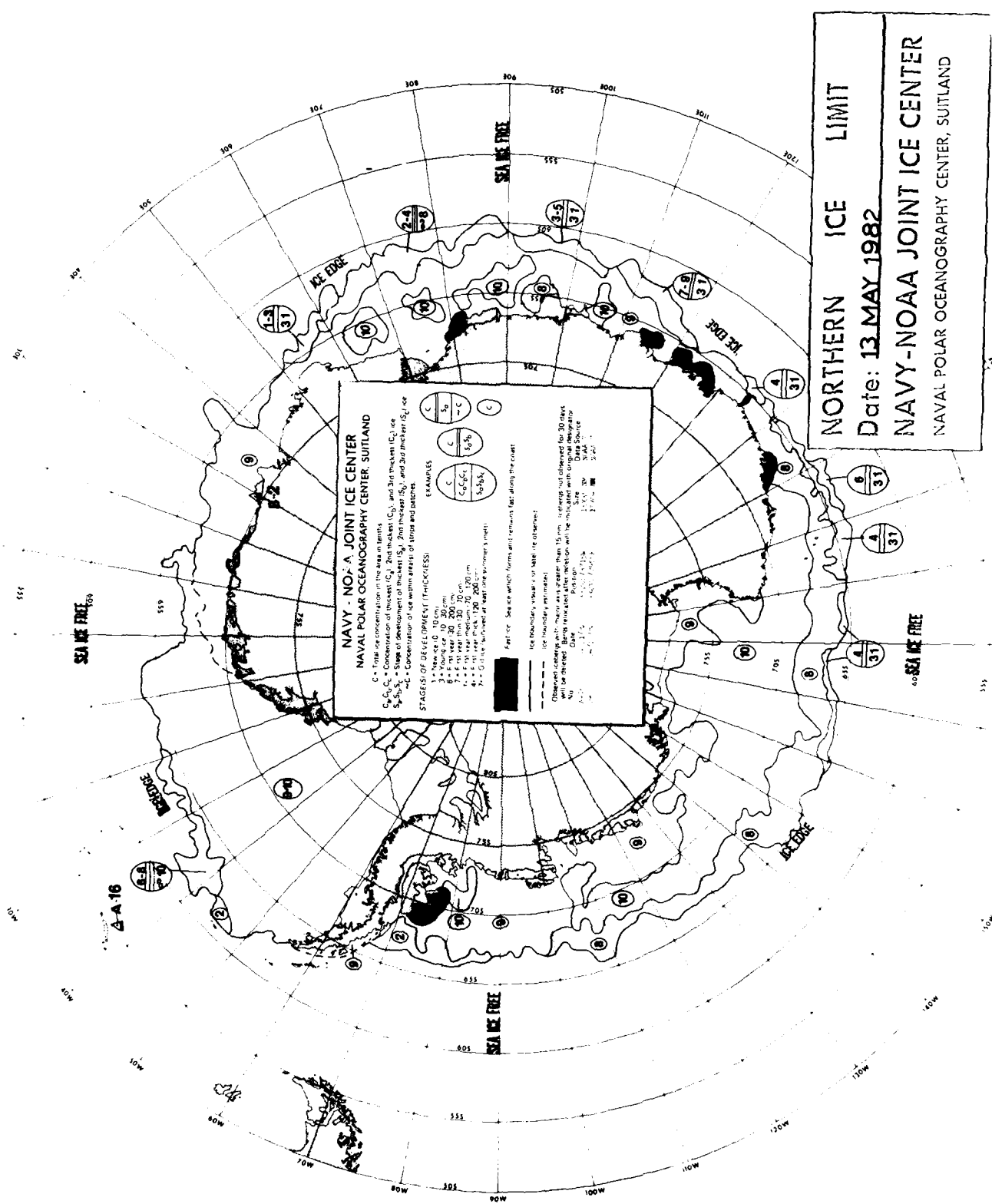
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NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

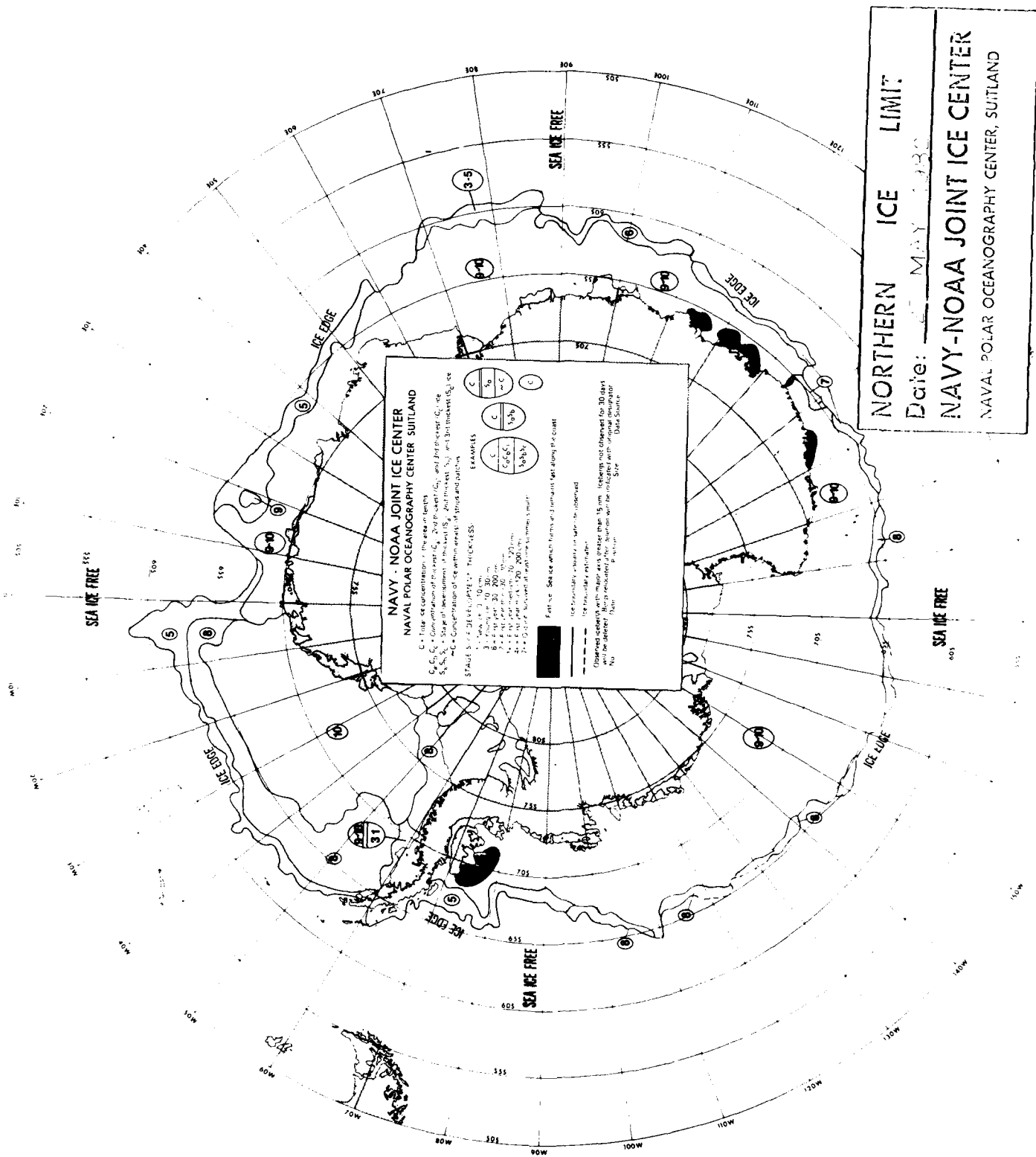


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 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

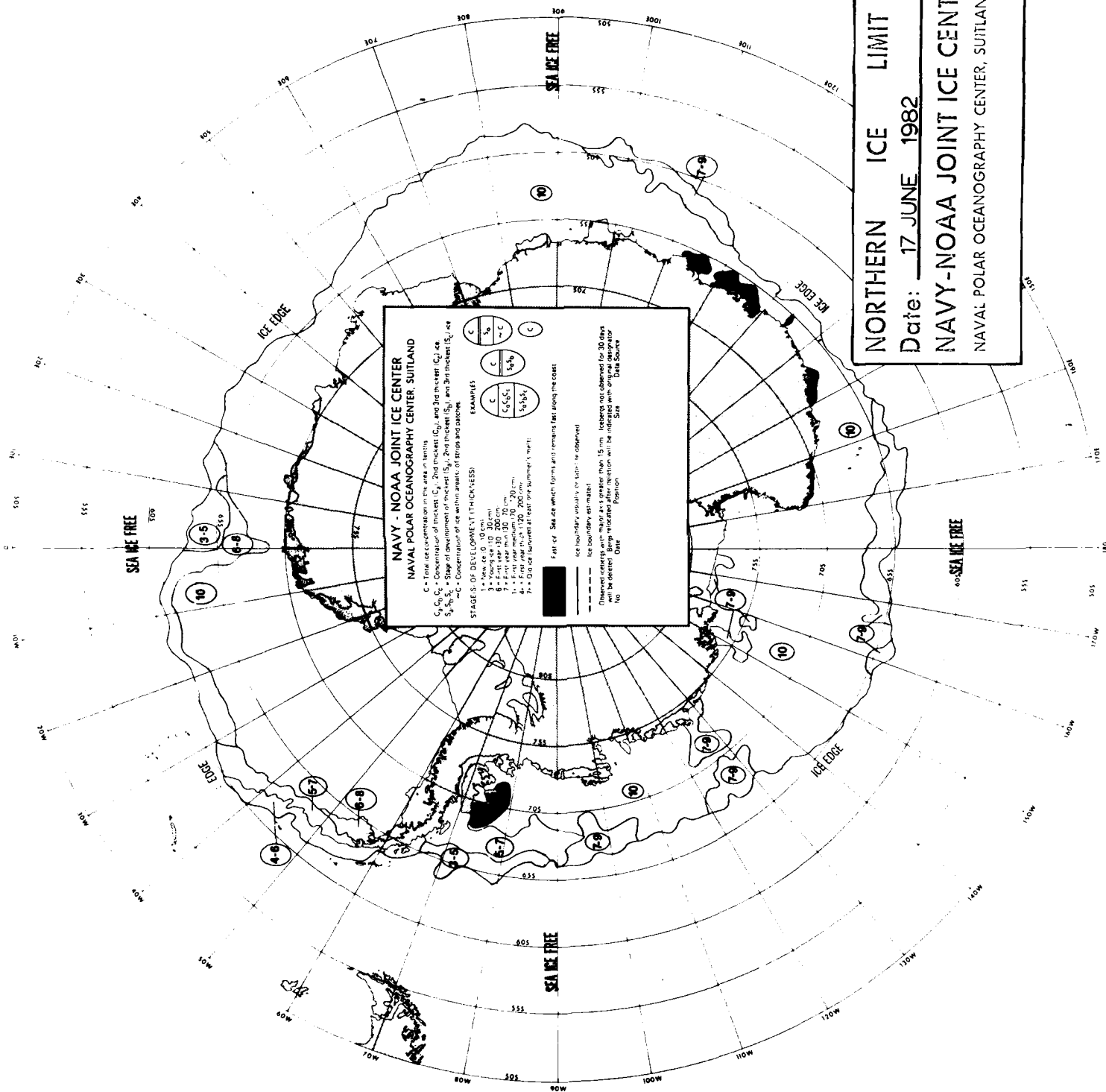
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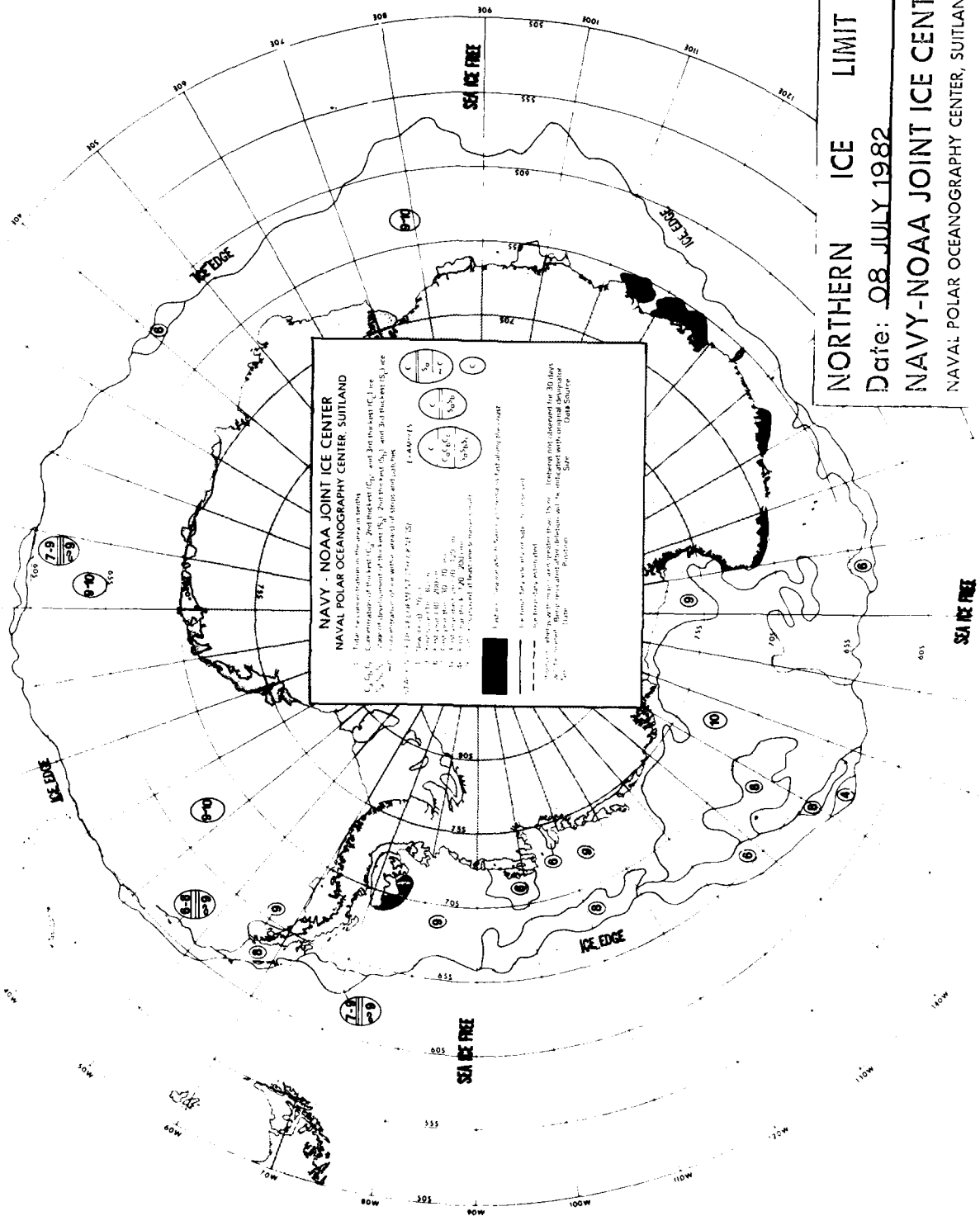


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 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

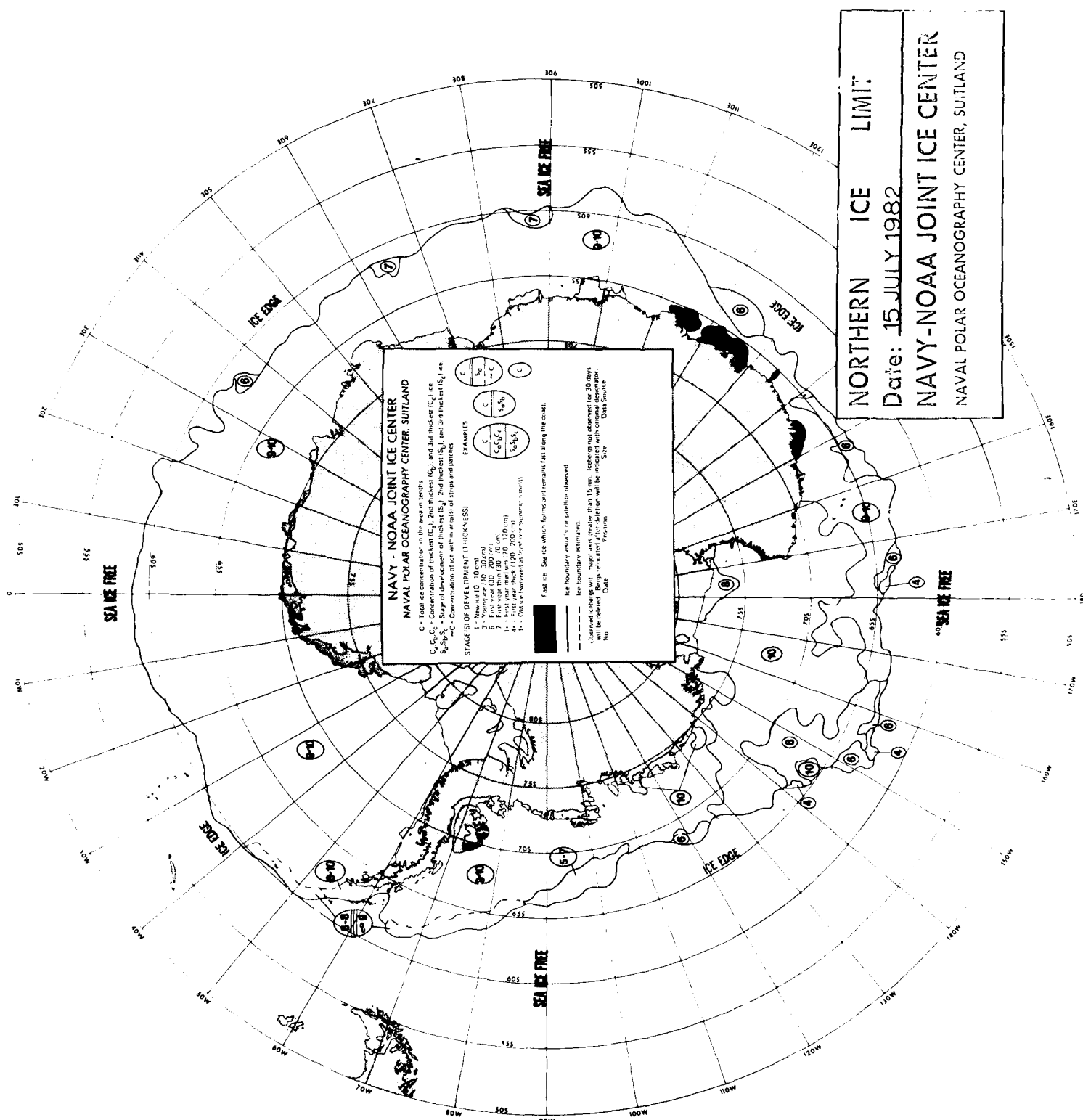


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 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

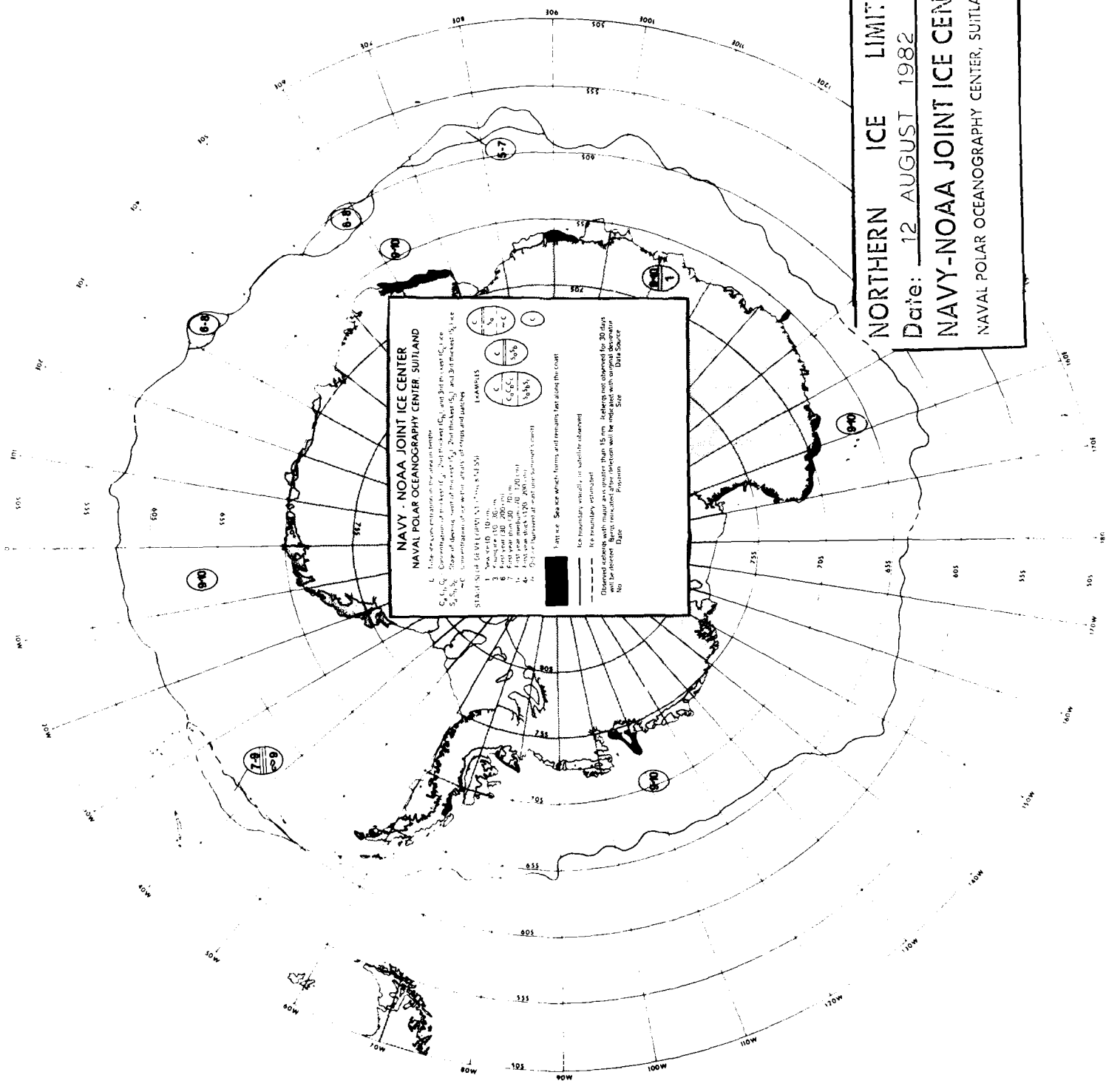
SEA ICE FREE



NORTHERN ICE LIMIT
 Date: 08 JULY 1982
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND



NORTHERN ICE LIMIT
 Date: 15 JULY 1982
 NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

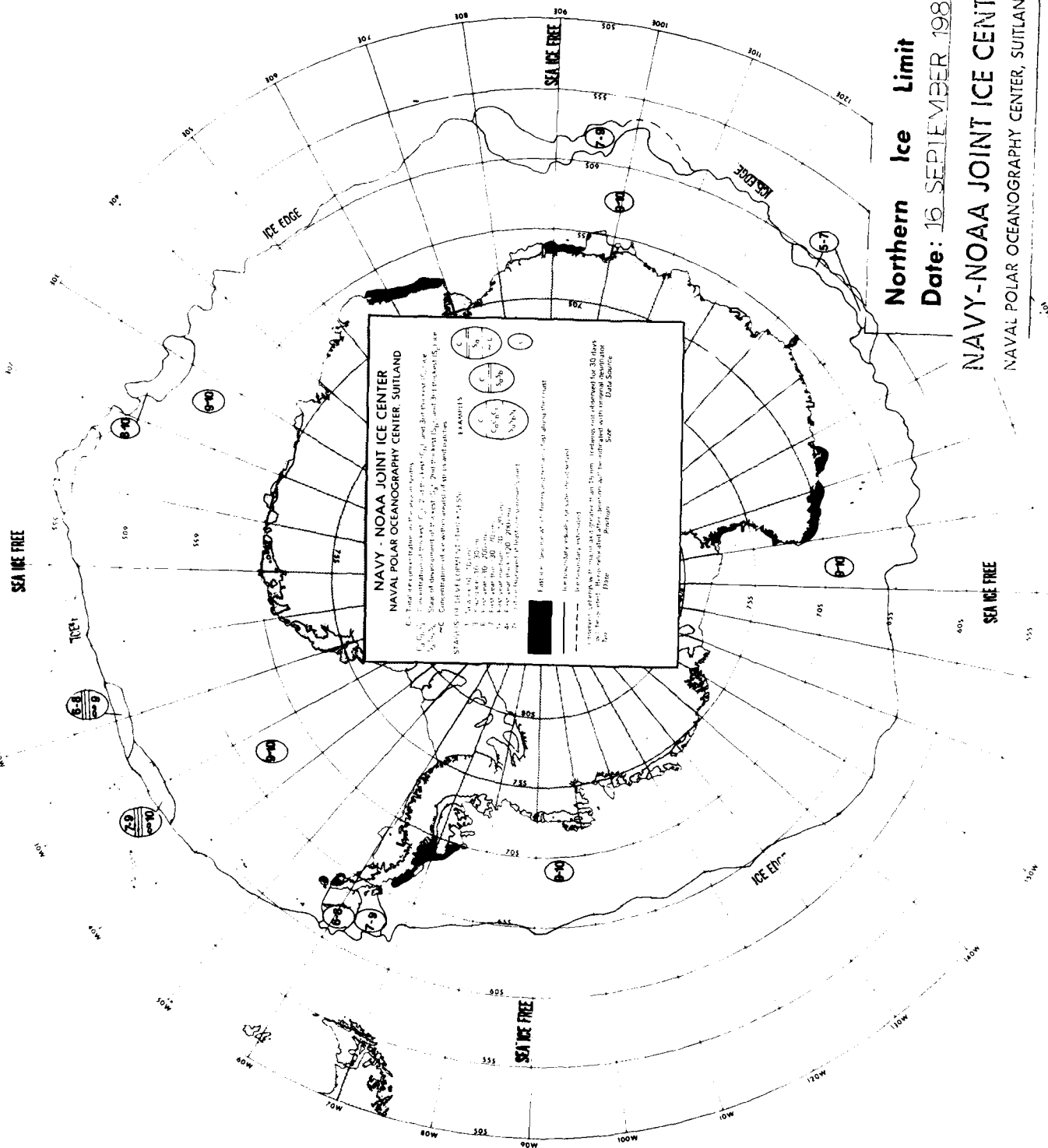


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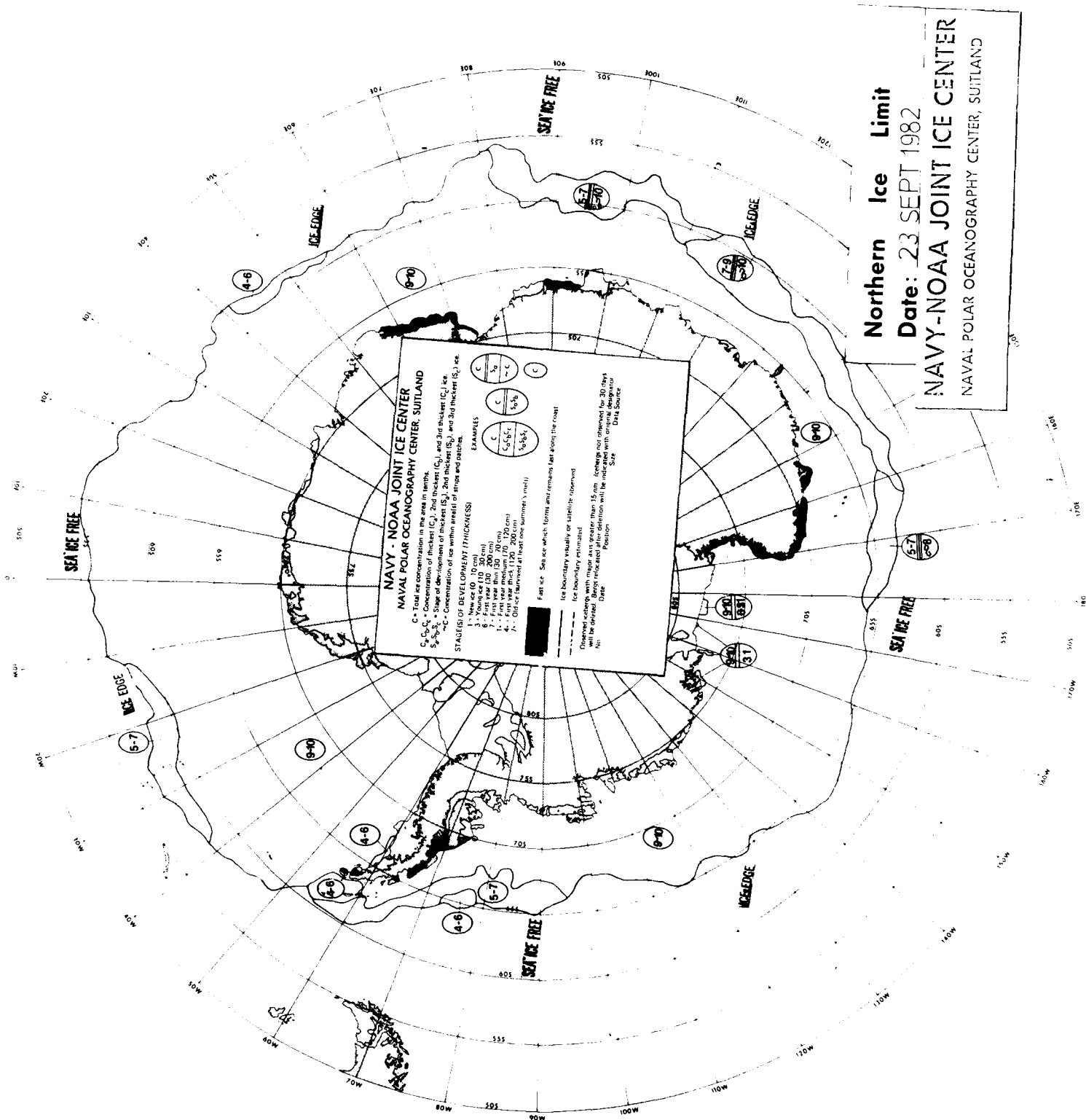
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 2. Concentration of ice in the area in tenths.
 3. Concentration of ice in the area in tenths.
 4. Concentration of ice in the area in tenths.
 5. Concentration of ice in the area in tenths.
 6. Concentration of ice in the area in tenths.
 7. Concentration of ice in the area in tenths.
 8. Concentration of ice in the area in tenths.
 9. Concentration of ice in the area in tenths.
 10. Concentration of ice in the area in tenths.

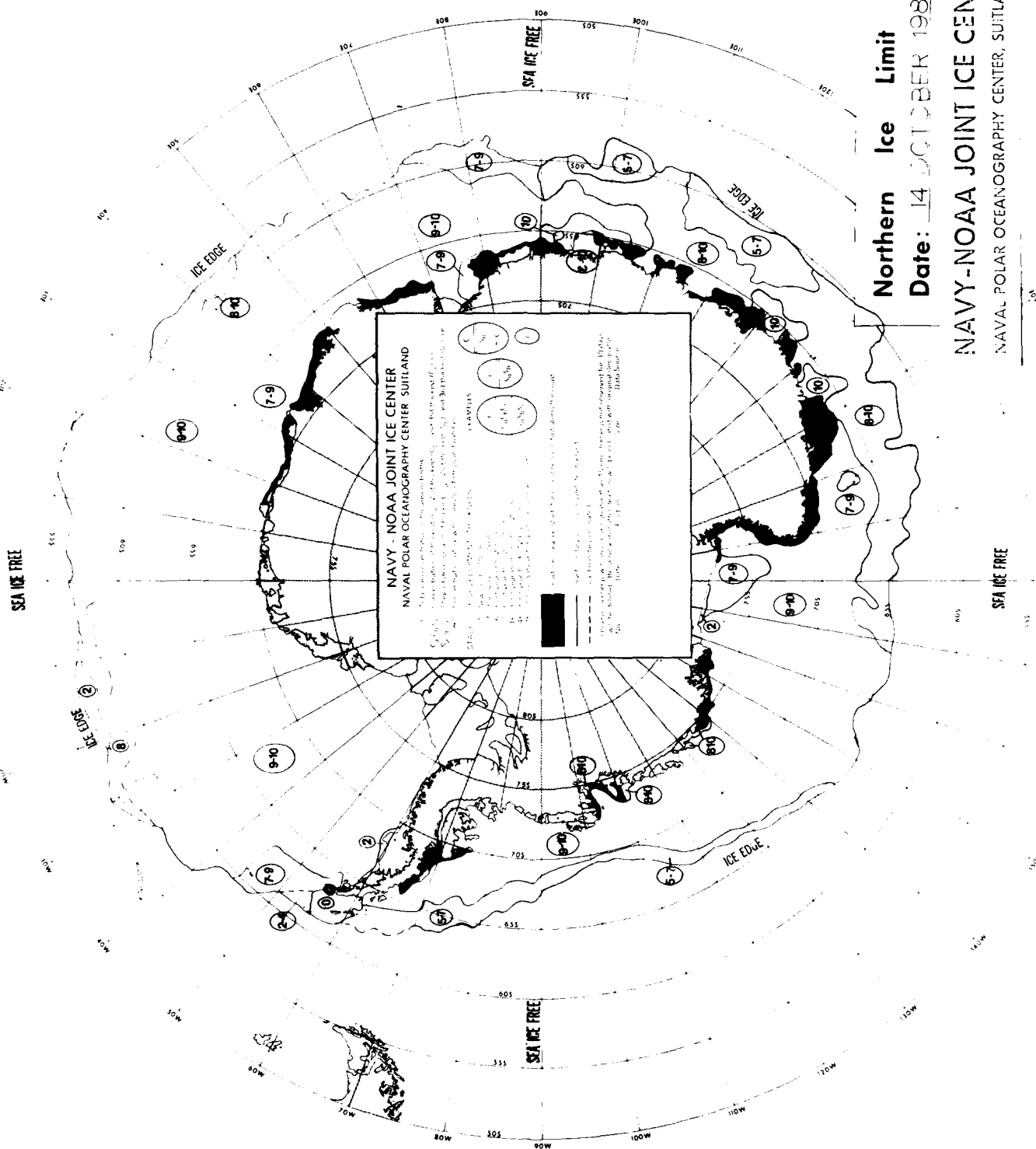
1. Ice boundary, which is not subject to observation.
 2. Ice boundary, which is not subject to observation.
 3. Ice boundary, which is not subject to observation.
 4. Ice boundary, which is not subject to observation.
 5. Ice boundary, which is not subject to observation.
 6. Ice boundary, which is not subject to observation.
 7. Ice boundary, which is not subject to observation.
 8. Ice boundary, which is not subject to observation.
 9. Ice boundary, which is not subject to observation.
 10. Ice boundary, which is not subject to observation.

NORTHERN ICE LIMIT
 Date: 12 AUGUST 1982
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



Northern Ice Limit
Date: 16 SEPTEMBER 1982
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND





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ANTARCTIC ICE CHARTS 1981-1982(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC 1982

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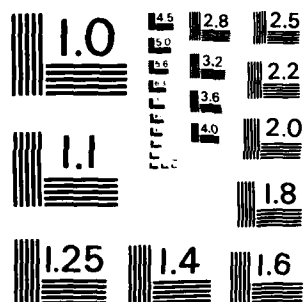
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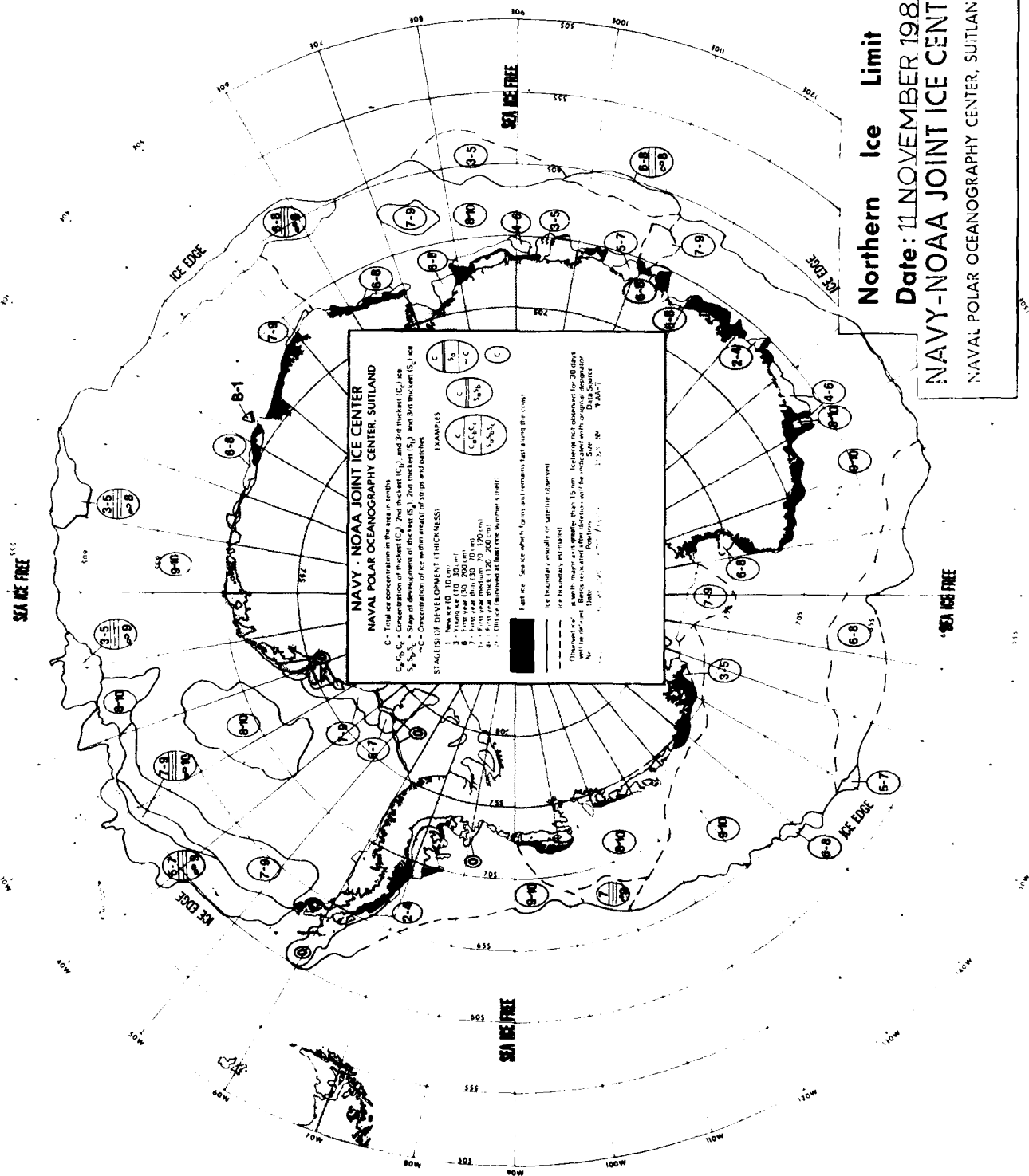


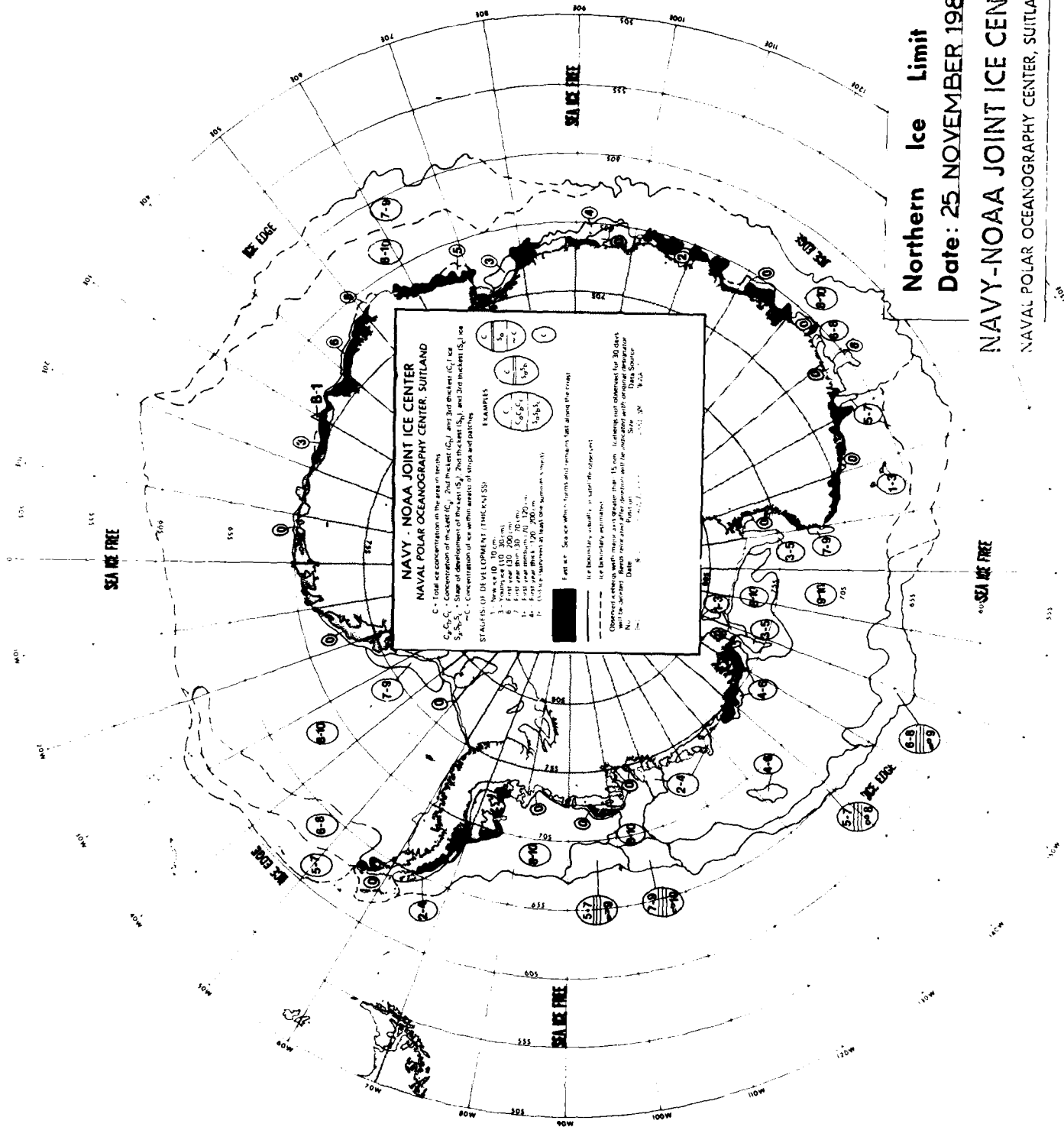
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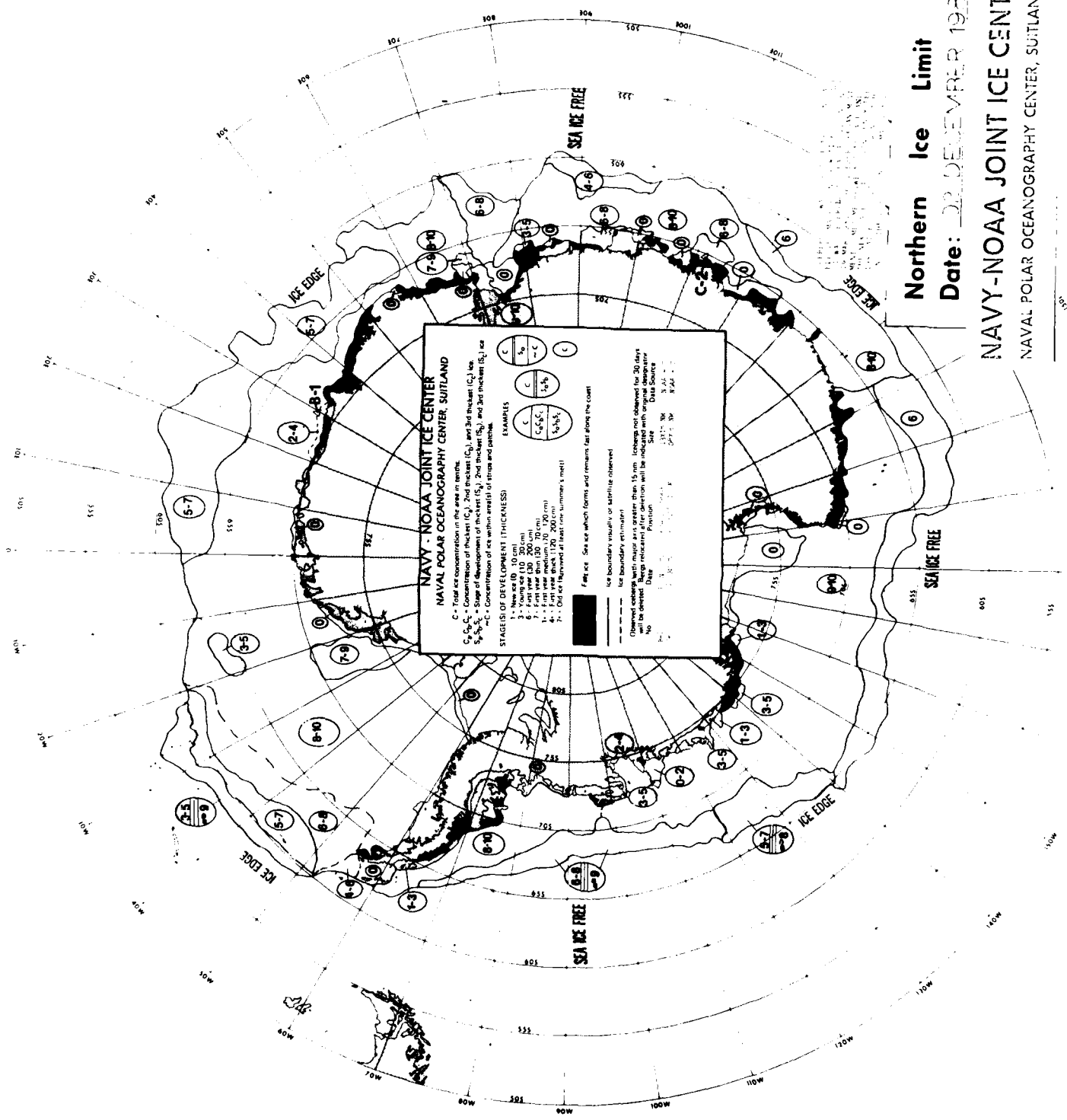


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A





Northern Ice Limit
Date: 25 NOVEMBER 1982
NAVY-NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

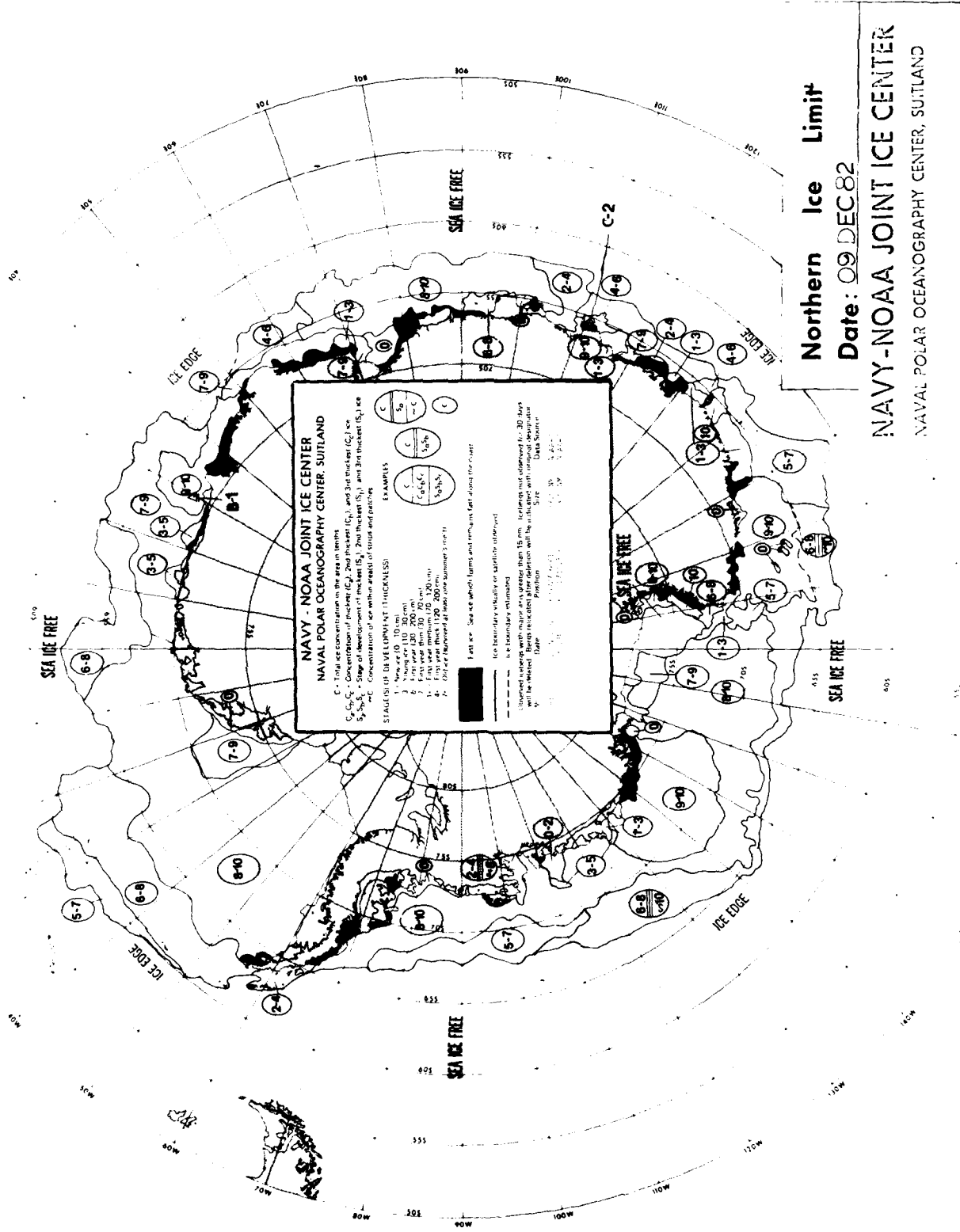


Northern Ice Limit

Date: 02 DECEMBER 1982

NAVY-NOAA JOINT ICE CENTER

NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND



Northern Ice Limit
Date: 09 DEC 82
NAVY-NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

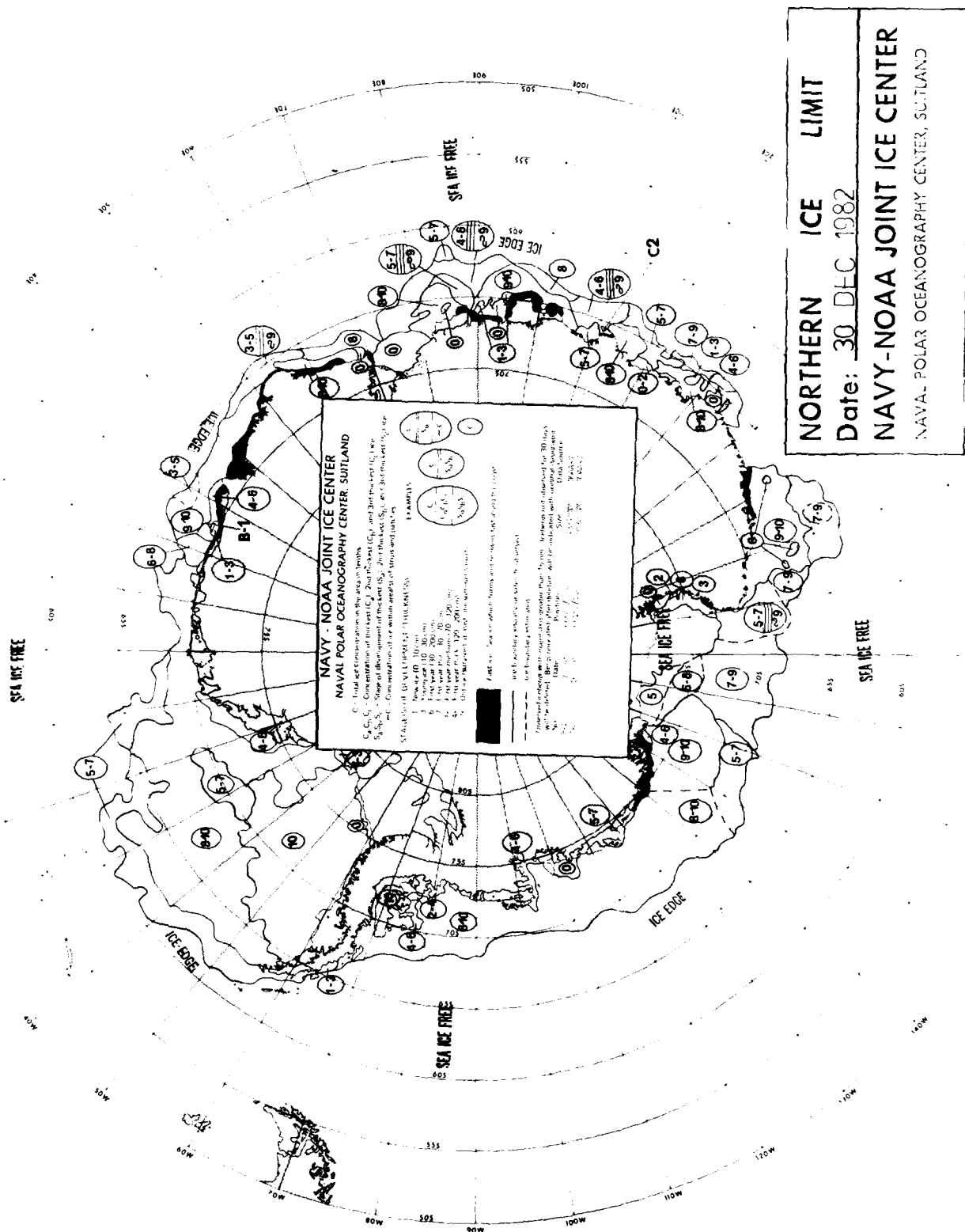


TABLE 1 SATELLITE DATA UTILIZED DURING 1981 AND 1982

Time Period		Satellite Remote Sensing			Resolution	Coverage
From	To	Sensor Platform	Sensor Type	Spectral Region		
1-81	12-82	NOAA-6	AVHRR HRPT/LAC VIS NIR IR IR	0.55-0.68 μ m 0.73-1.10 μ m 3.55-3.93 μ m 10.5-11.5 μ m	1km	Regional
			GAC VIS IR	0.55-0.68 μ m 10.5-11.5 μ m	4km	Global
7-81	12-82	NOAA-7	AVHRR HRPT/LAC VIS NIR IR IR	0.58-0.68 μ m 0.73-1.10 μ m 3.55-3.93 μ m 10.3-11.3 μ m	1km	Regional
			GAC VIS IR	0.58-0.68 μ m 10.3-11.3 μ m	4km	Global
1-81	11-82	NIMBUS-5 *	ESMR	1.55 cm	25km	Global
11-81	12-82					Regional
1-81	12-82	NIMBUS-7	SMMR	0.81 cm 1.66 cm	50km	Global

Abbreviations and Acronyms

AVHRR - Advanced Very High Resolution Radiometer
cm - Centimeter
ESMR - Electrically Scanning Microwave Radiometer
GAC - Global Area Coverage
HRPT - High Resolution Picture Transmission
IR - Infrared
km - Kilometer

LAC - Local Area Coverage
NIR - Near Infrared
SMMR - Scanning Multifrequency Microwave Radiometer
VHRR - Very High Resolution Radiometer
VIS - Visual
 μ m - Micrometer

* NIMBUS-5 recorders failed on 23 November 1982, limiting data to the Alaska region.

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AD-A132 383 ANTARCTIC ICE CHARTS 1981-1982(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC MAR 83

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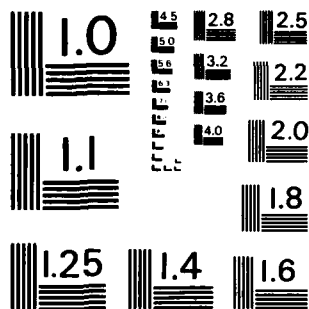
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MICROCOPY RESOLUTION TEST CHART
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7. AUTHOR(s)		8. CONTRACT OR GRANT NUMBER(s)
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9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
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Sea ice, polar ice fields, satellite imagery, concentration, stage of development, fast ice, concentration of thickness, theoretical thickness, Antarctic.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
These are approximately 7-days analysis of sea ice prepared by the Naval Polar Oceanography Center, Suitland, MD. Included are ice concentration and ice thickness (age).		

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