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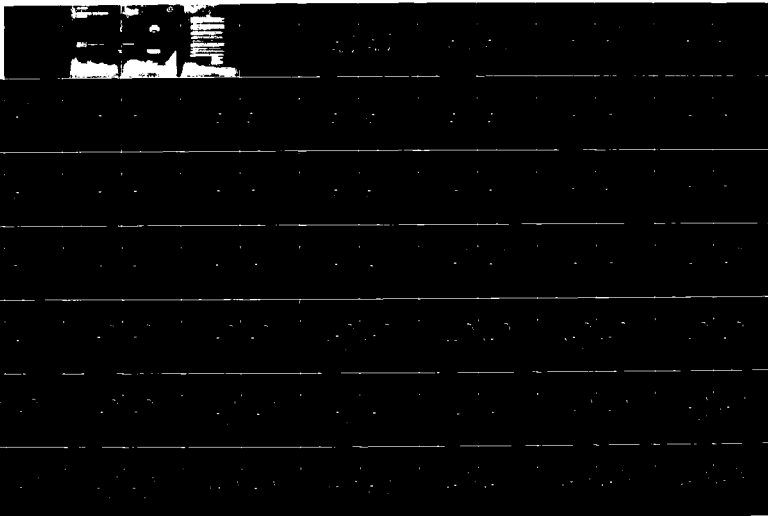
ANTARCTIC ICE CHARTS 1985-1986(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC AUG 87

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

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OGRAPHY CENTER.



The information in the atlas was based on a review of the data and this review was completed by the end of 1966. The data were then further processed and the atlas was published in 1967. The atlas contains a wealth of information on the ice conditions of the Arctic and Antarctic regions. The atlas is a valuable reference work for anyone interested in the ice conditions of the Arctic and Antarctic regions.

The atlas is the seventh in a continuing bi-yearly series of atlases prepared in the Polar Ice Center. The atlas contains information on the ice conditions of the Arctic and Antarctic regions. The information was prepared under operational time constraints principally from satellite data supplemented by conventional observations.

Thanks are also extended to those observers who endeavored to report their ice observations from ships, planes and shore stations. All these data were incorporated into the weekly analysis and significantly improved the quality of the final products.

Table 1 located on the inside back cover summarizes satellite data available during 1966 and 1967.

The ice charts contained in this atlas were derived from a manual synthesis of the ice data received by the JEC. Analyses were performed by trained Navy and Air Force personnel. The data, primarily resolution and wavelength information, strongly influenced the analysis methodology and format of the product. The following analysis procedure was used:

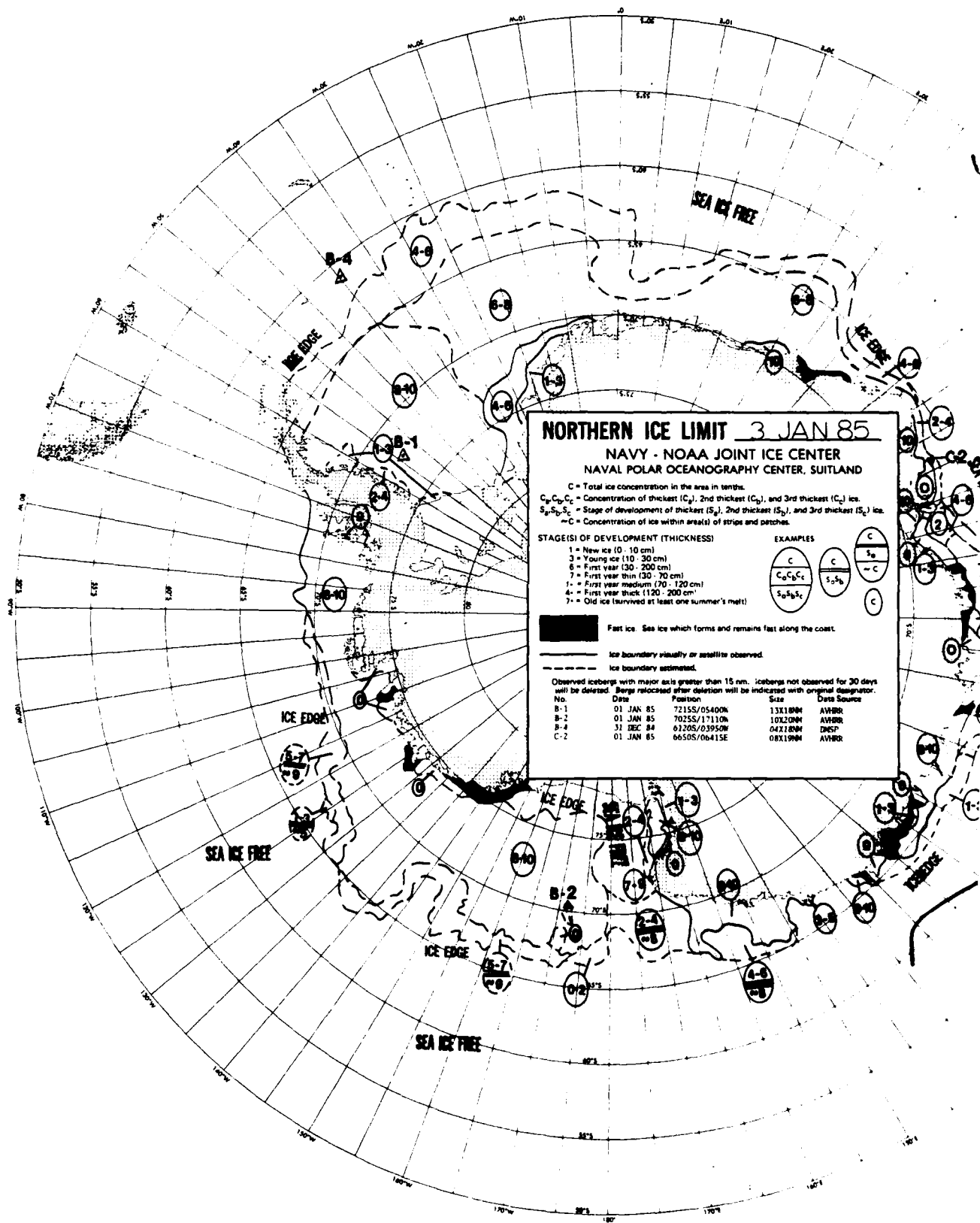
1. Satellite and shore station, ship and aerial reconnaissance data were analyzed and plotted on maps.

2. The data were then analyzed and plotted on maps. The data were then analyzed and plotted on maps. The data were then analyzed and plotted on maps.

3. The data were then analyzed and plotted on maps. The data were then analyzed and plotted on maps. The data were then analyzed and plotted on maps.

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Antarctic Ice Charts 1985-1986		5. TYPE OF REPORT & PERIOD COVERED Reference Report 1985-1986
7. AUTHOR(s) Naval Polar Oceanography Center, Suitland, MD		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Oceanography Command Detachment Federal Building, Asheville, NC 28801-2696		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS Commander Naval Oceanography Command NSTL, MS 39529		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Sea ice, polar ice fields; satellite imagery; concentration; stage of development; fast ice; concentration of thickness; theoretical thickness; Antarctic ice charts; <i>provides</i>		
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). <i>Reynolds Group, 1985-1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 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NORTHERN ICE LIMIT 3 JAN 85

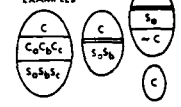
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 $-C$ = Concentration of ice within area(s) of stripe and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year (30 - 100 cm)
- 4 = First year thin (30 - 70 cm)
- 5 = First year medium (70 - 120 cm)
- 6 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

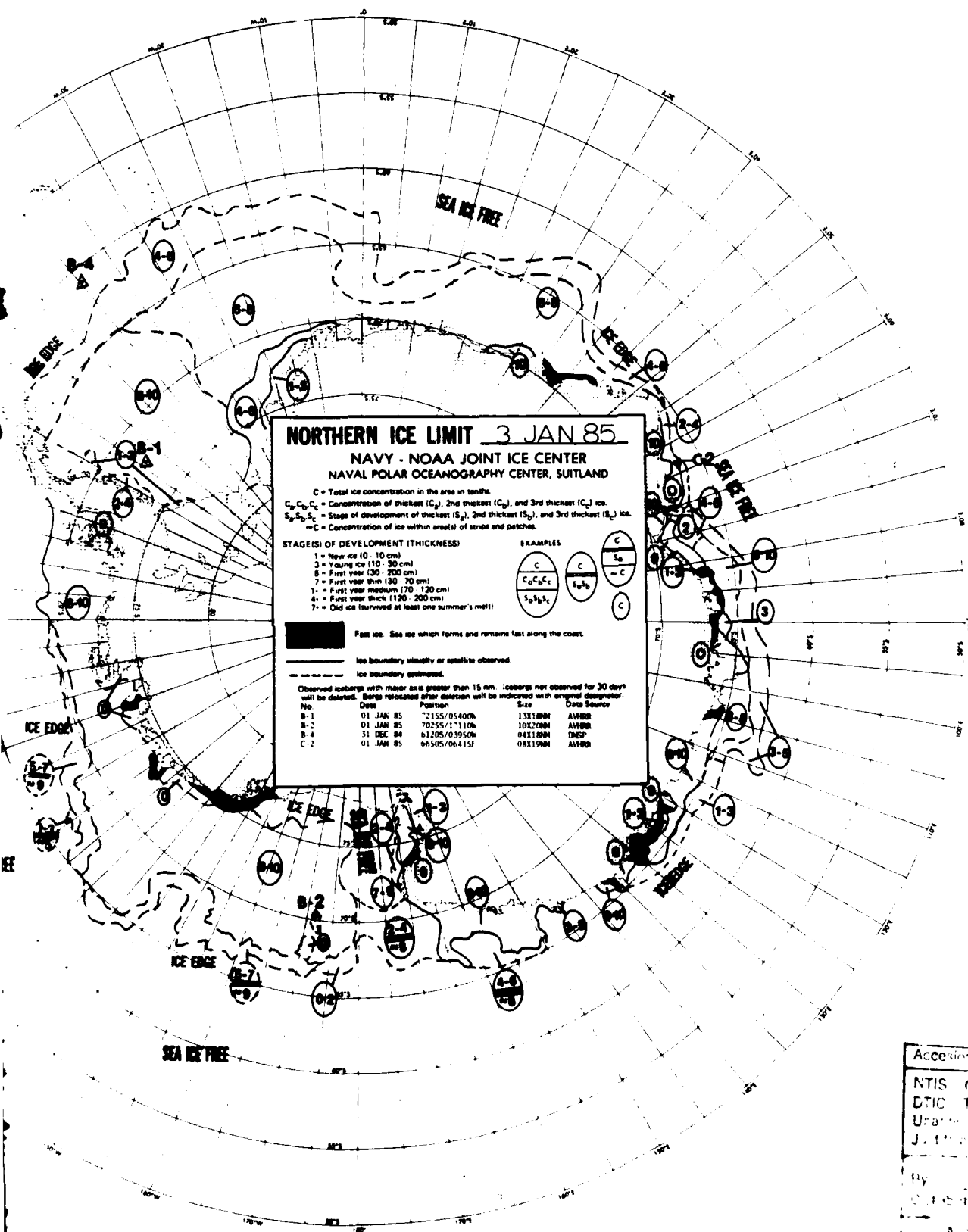


Fast ice: See ice which forms and remains fast along the coast.

Ice boundary visually or satellite observed.

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 original designator.

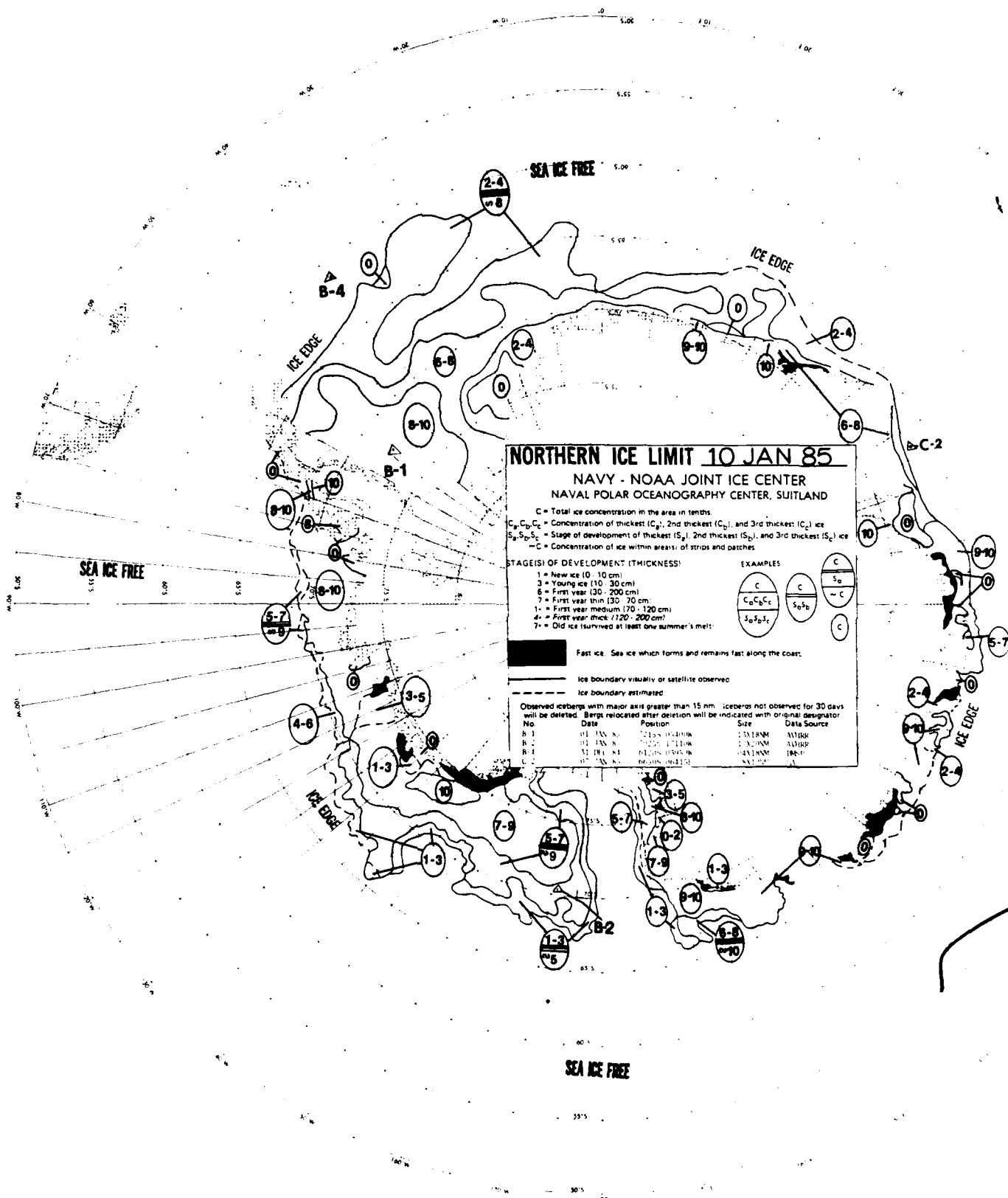
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B-2	01 JAN 85	70255/17110N	10X20NM	AVHRR
B-4	31 DEC 84	61205/03950W	04X18NM	DMSP
C-2	01 JAN 85	66505/06415E	08X19NM	AVHRR

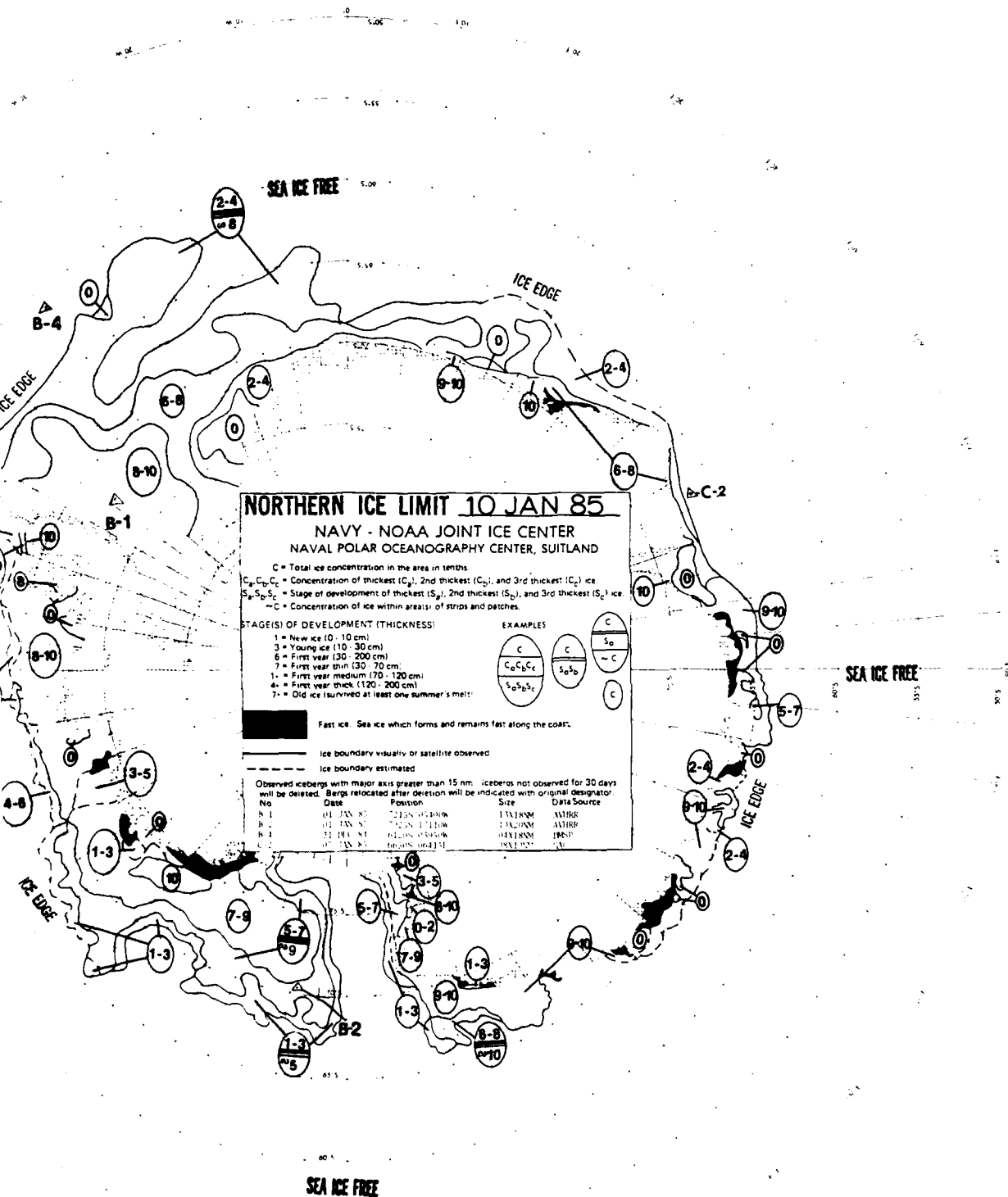


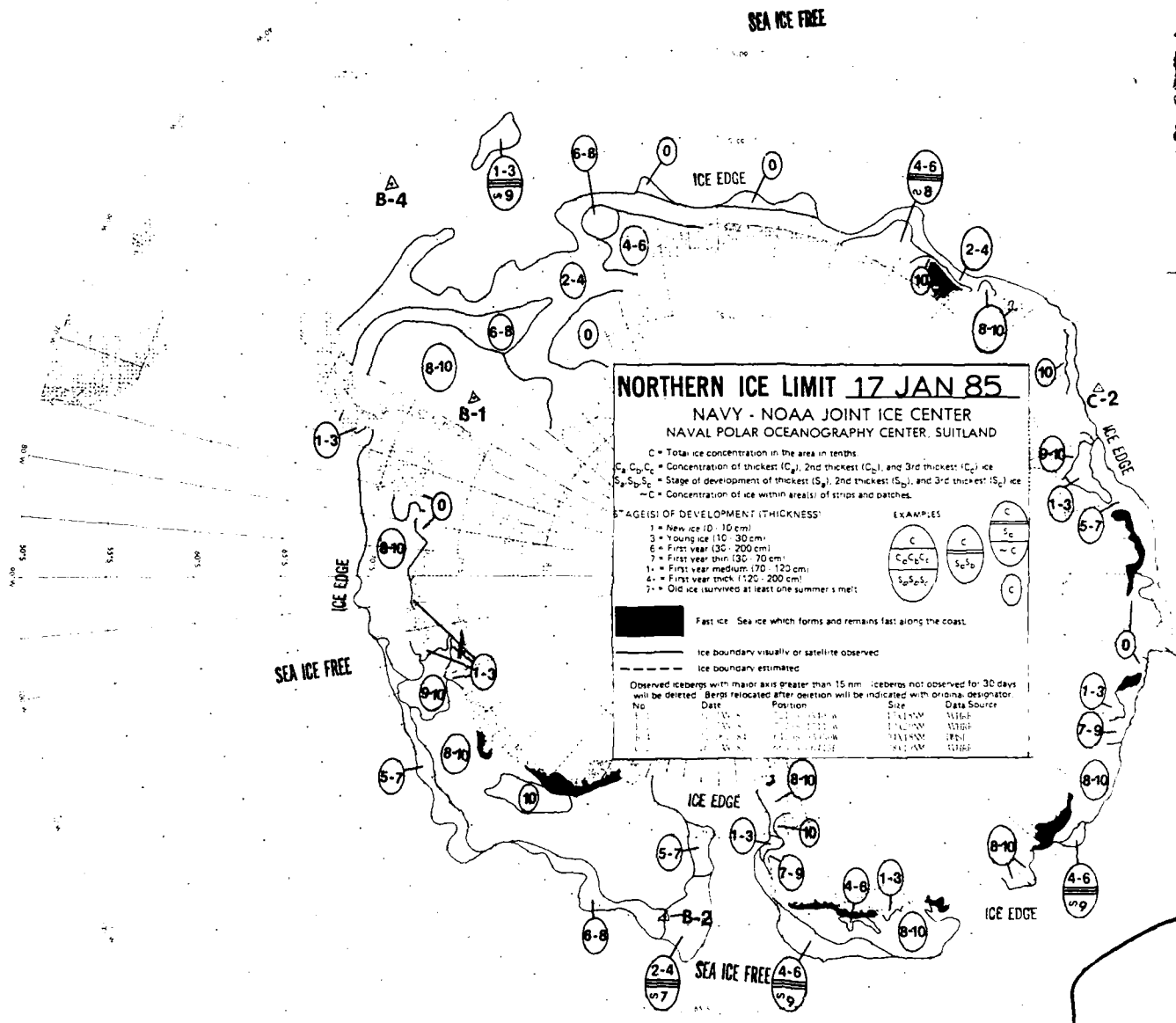
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SEA ICE FREE

NORTHERN ICE LIMIT 17 JAN 85

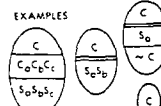
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
C = Concentration of ice within areas of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice: Sea ice which forms and remains fast along the coast.

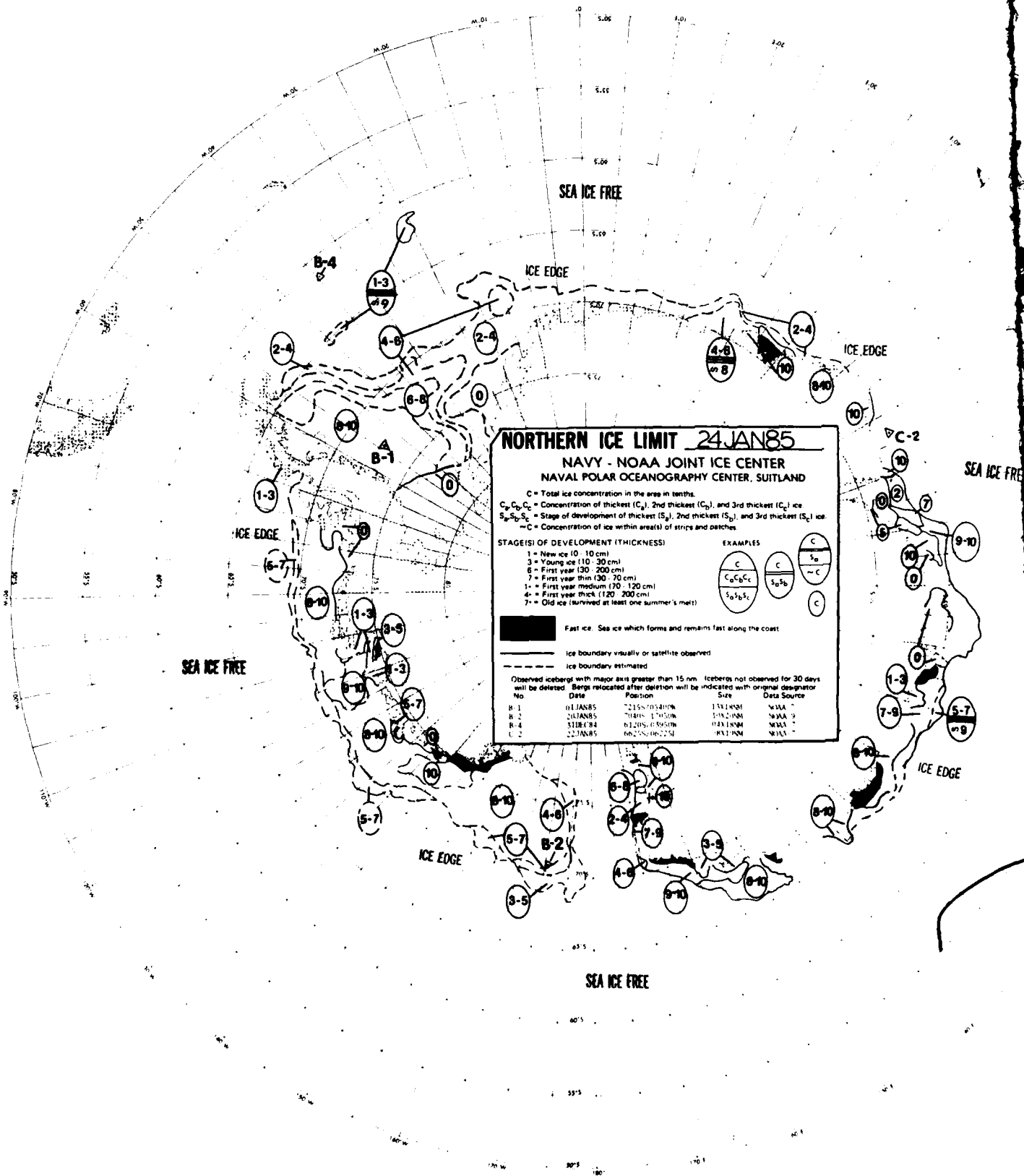
Ice boundary visually or satellite observed

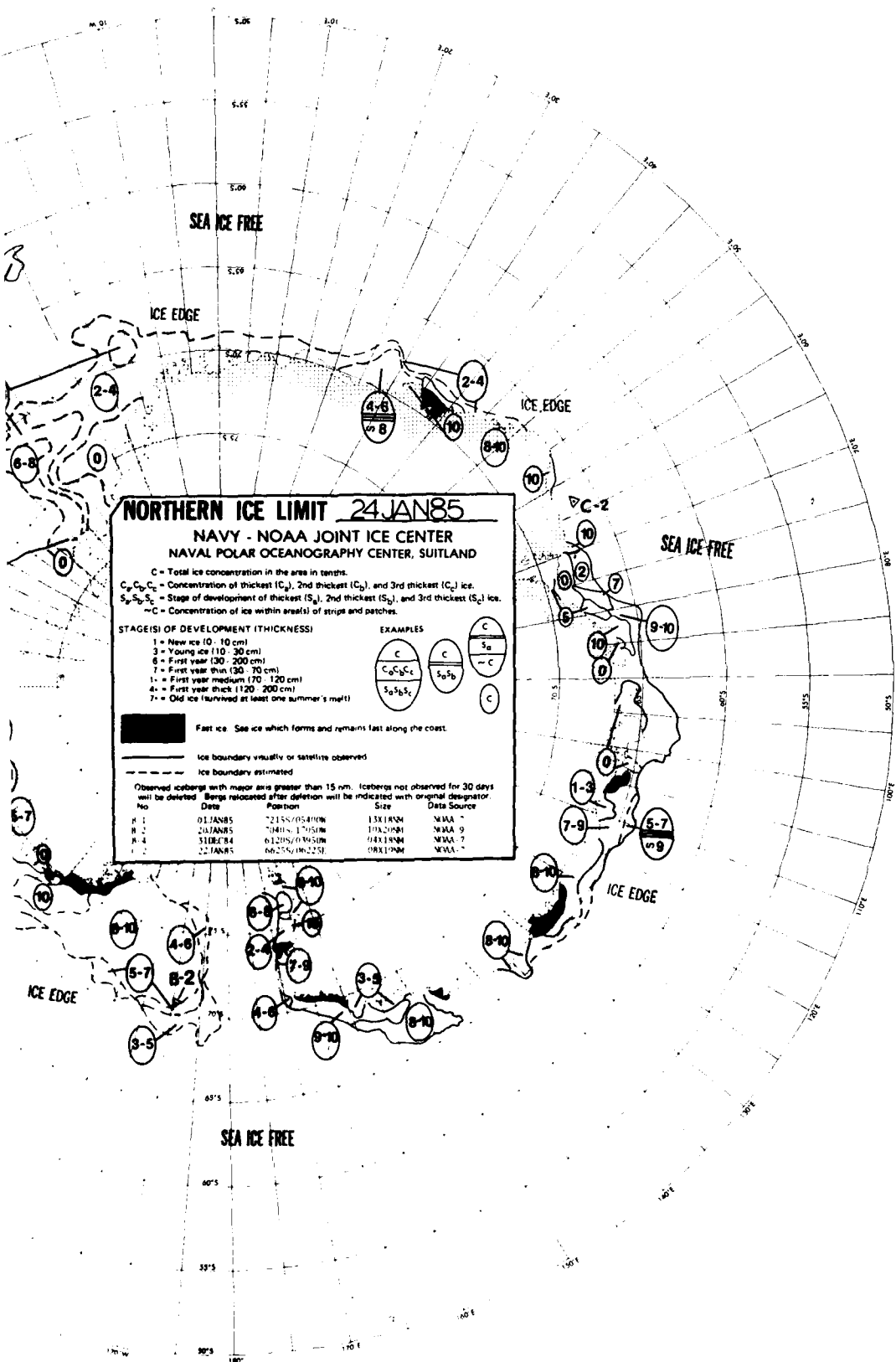
Ice boundary estimated

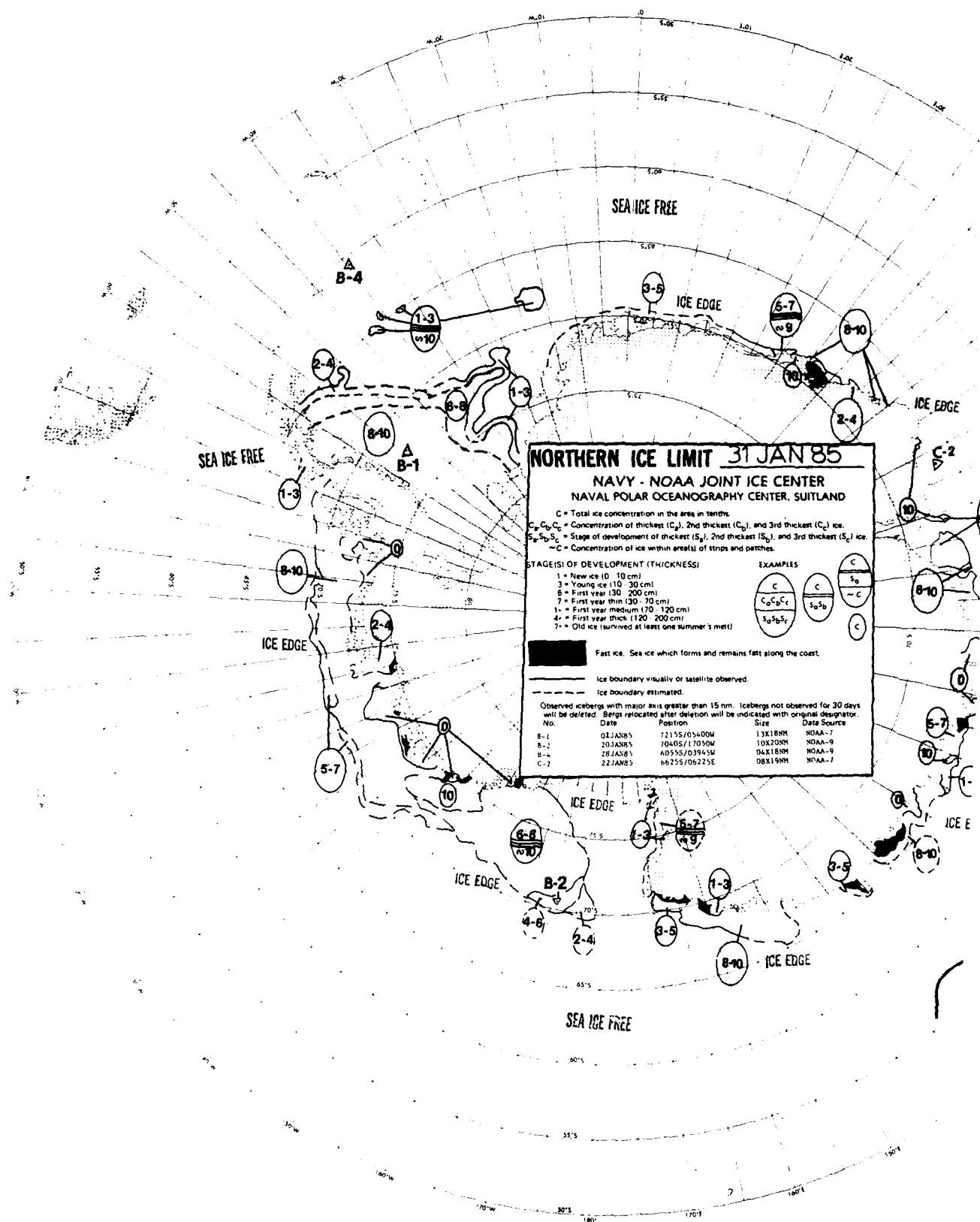
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

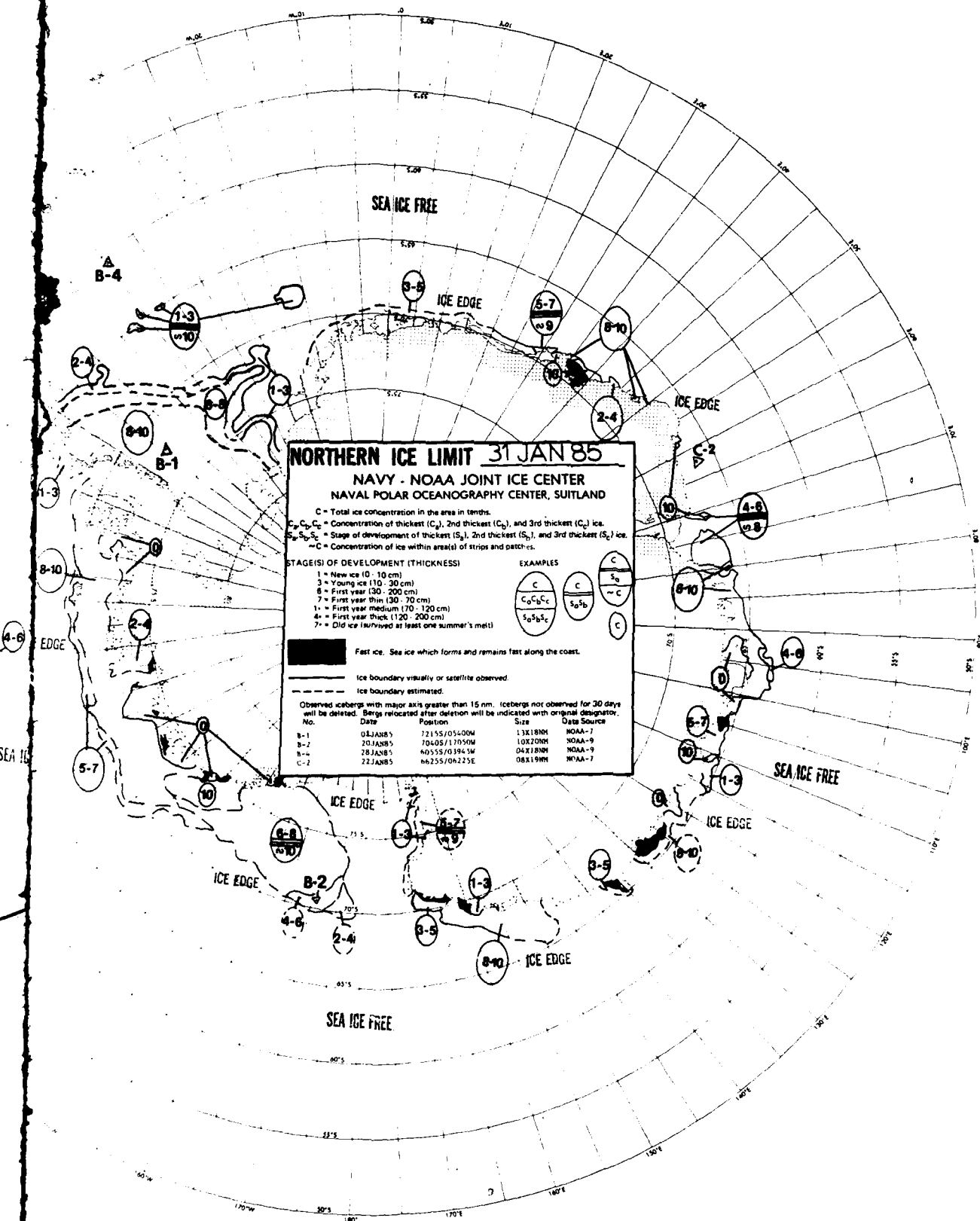
No.	Date	Position	Size	Data Source
1	17 JAN 85	66° 15' N 156° 15' W	1 X 1 NM	WVRS
2	17 JAN 85	66° 15' N 156° 15' W	1 X 1 NM	WVRS
3	17 JAN 85	66° 15' N 156° 15' W	1 X 1 NM	WVRS
4	17 JAN 85	66° 15' N 156° 15' W	1 X 1 NM	WVRS

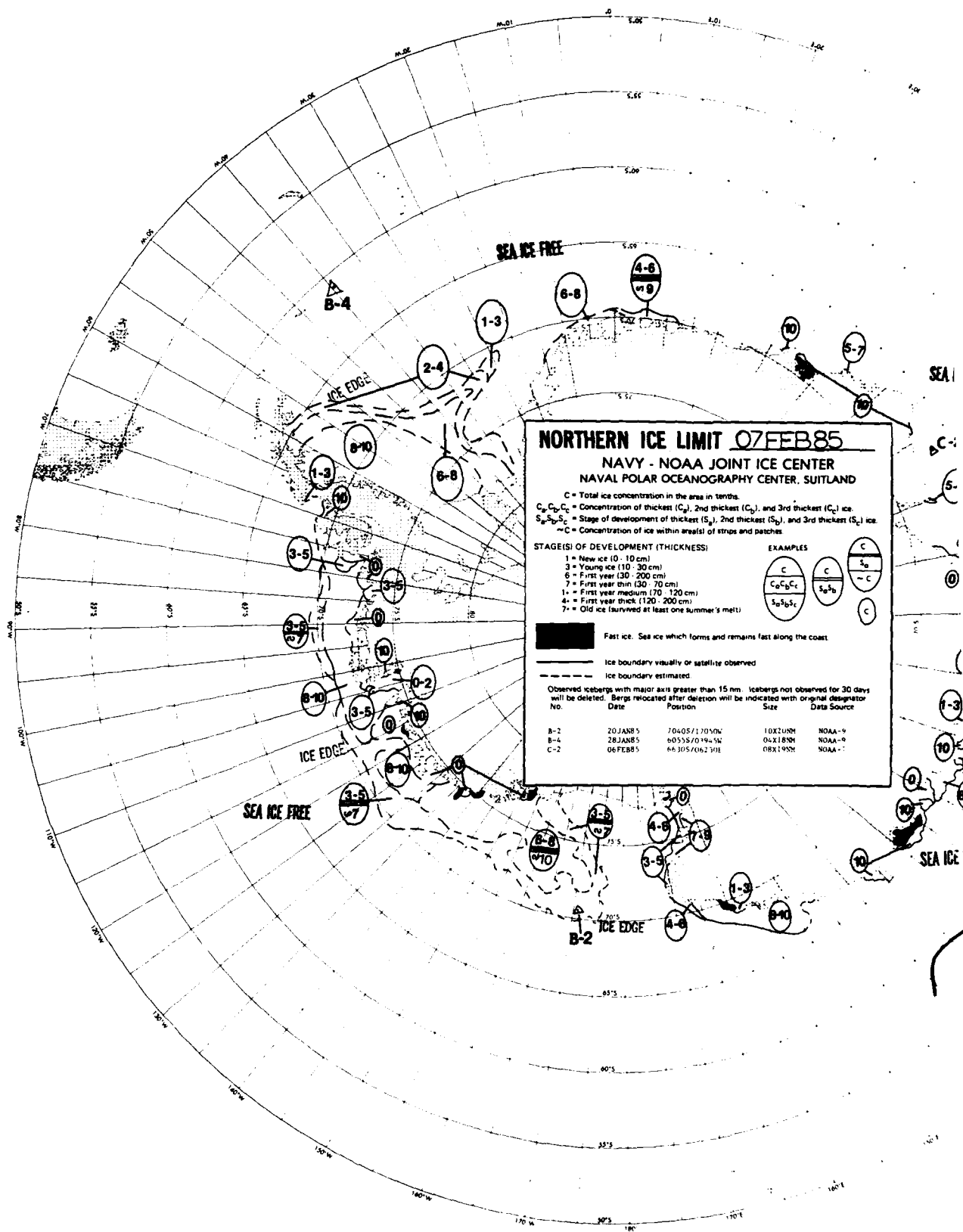
SEA ICE FREE











SEA ICE FREE

SEA ICE FREE

NORTHERN ICE LIMIT 07 FEB 85

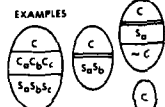
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
~C = Concentration of ice within areas of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



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

Ice boundary visually or satellite observed

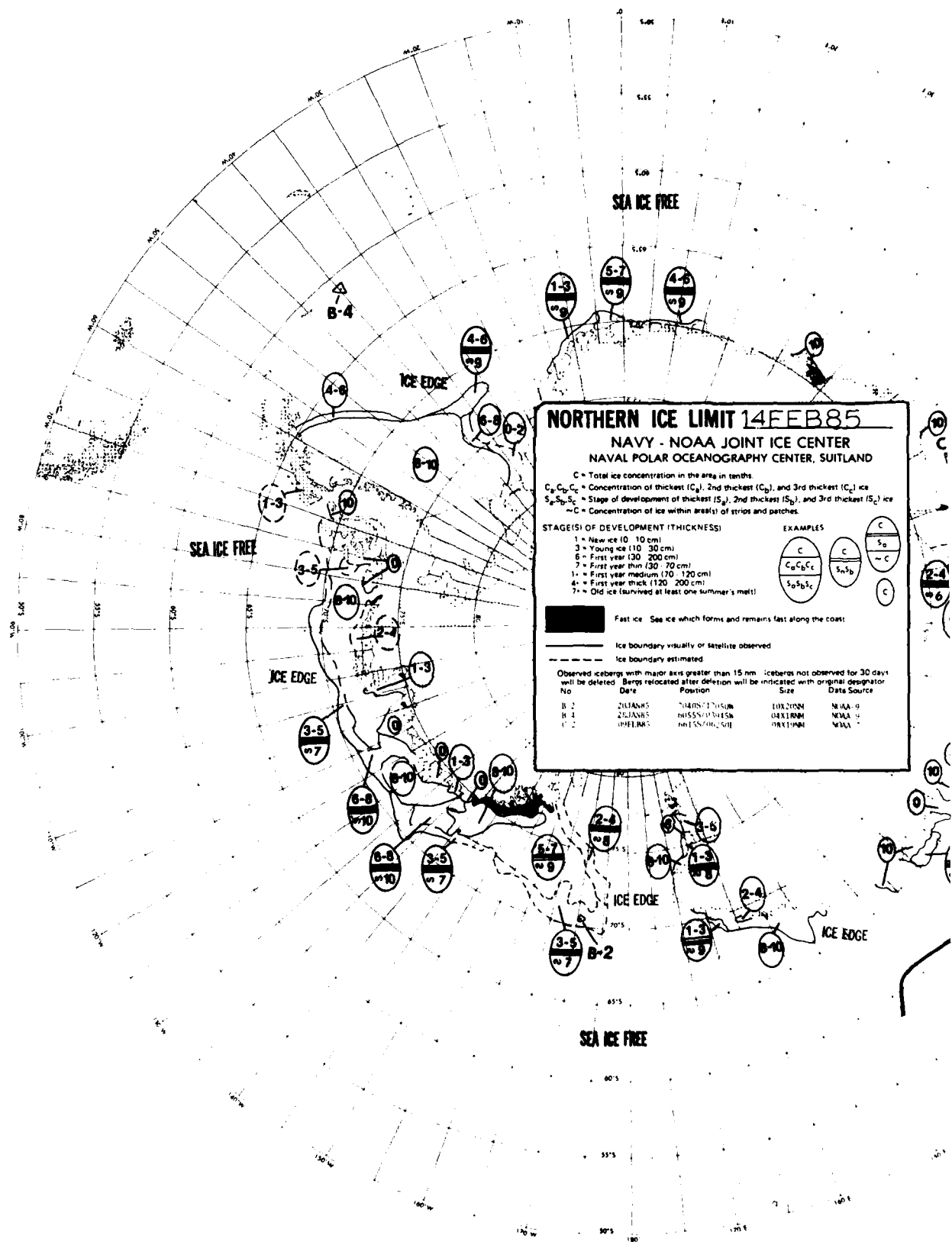
Ice boundary estimated

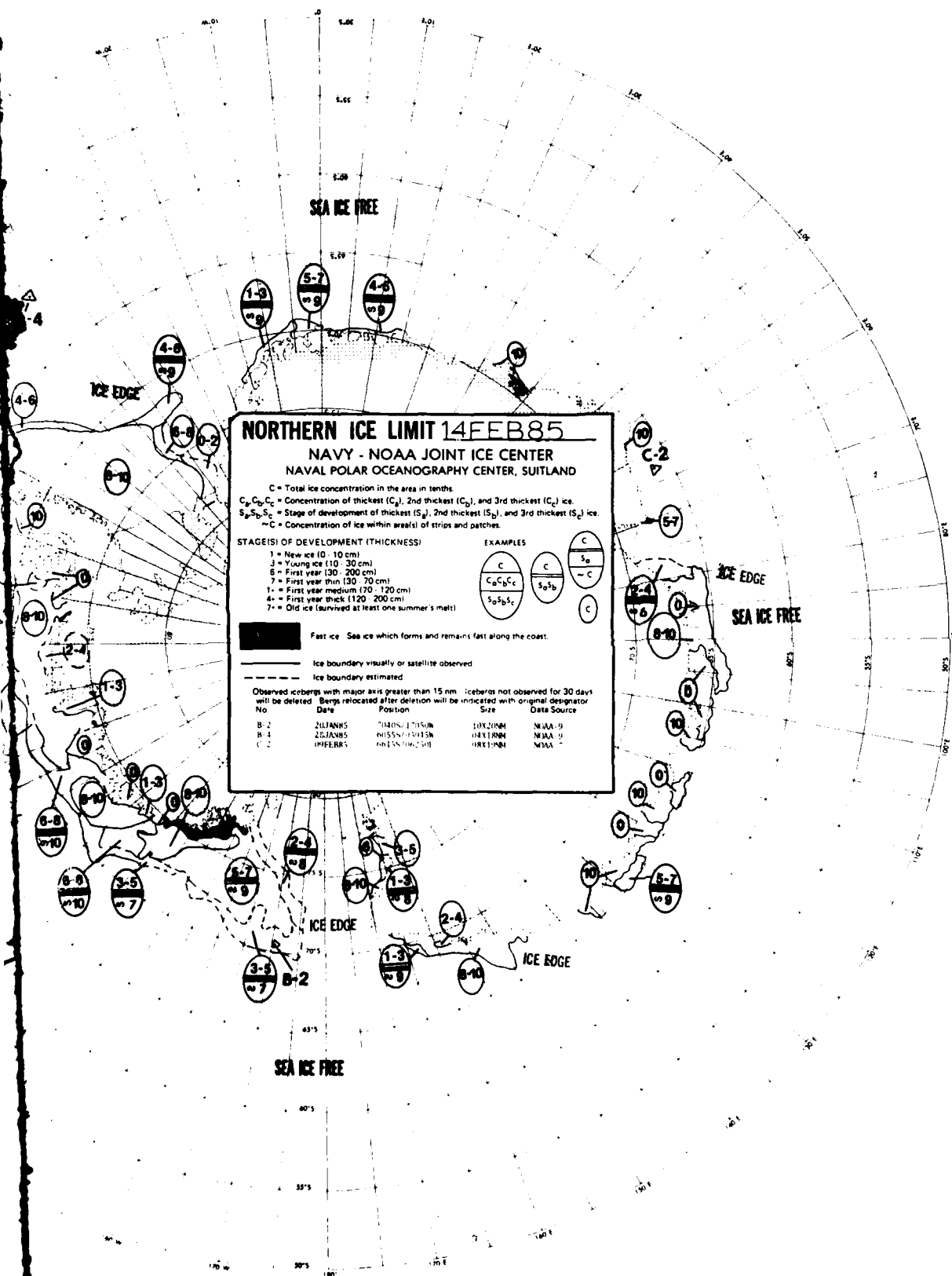
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

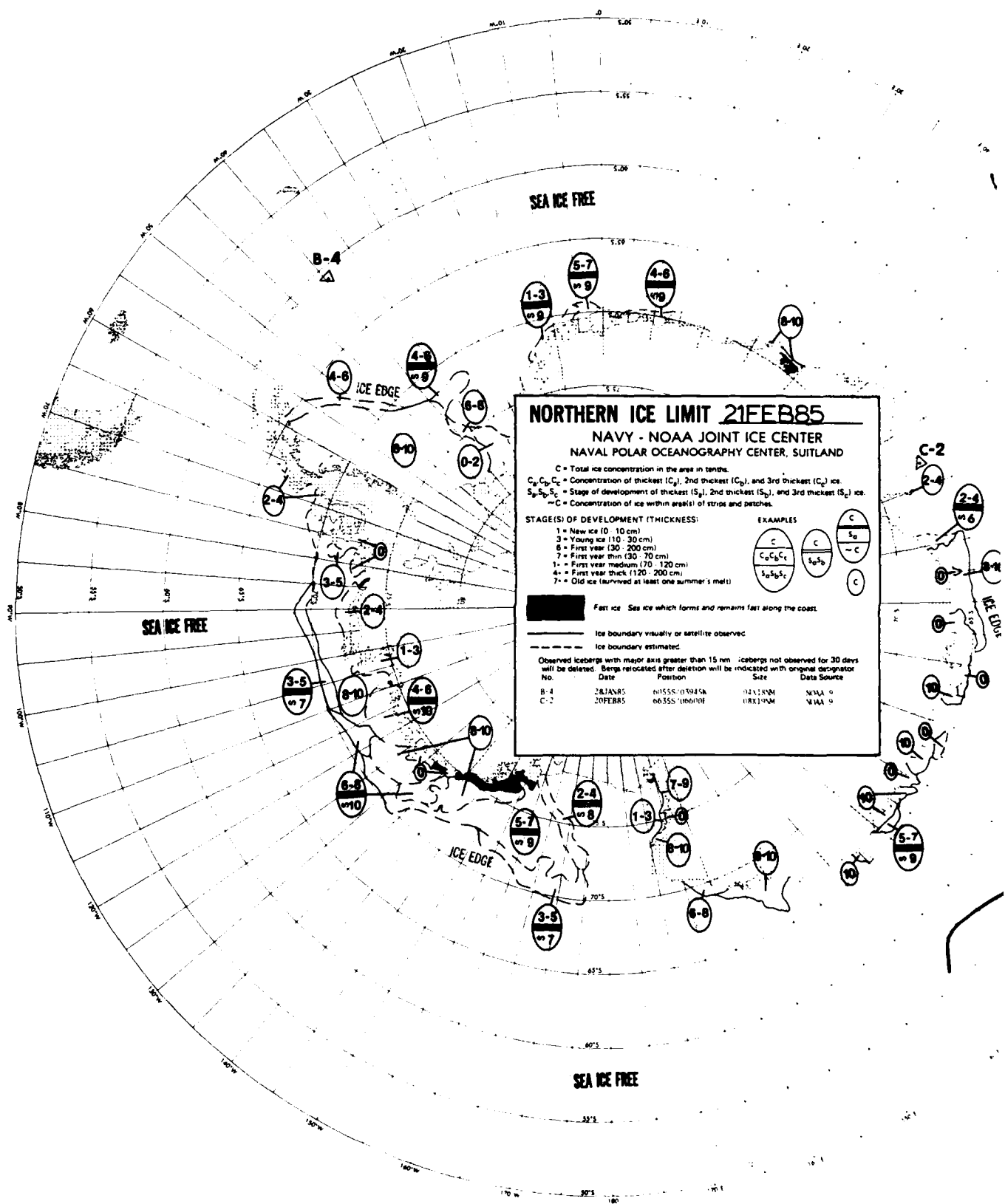
No.	Date	Position	Size	Data Source
B-2	20 JAN 85	70405/17050N	10X20NM	NOAA-4
B-4	28 JAN 85	60555/03945W	04X18NM	NOAA-9
C-2	06 FEB 85	66305/06230E	08X19NM	NOAA-1

B-2

SEA ICE FREE







SEA ICE FREE

NORTHERN ICE LIMIT 21FEB85

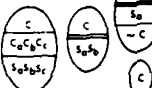
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within area(s) of stripe and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10-15 cm)
- 2 = Young ice (15-30 cm)
- 3 = First year (30-200 cm)
- 4 = First year thin (30-70 cm)
- 5 = First year medium (70-120 cm)
- 6 = First year thick (120-200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice: See ice which forms and remains fast along the coast.

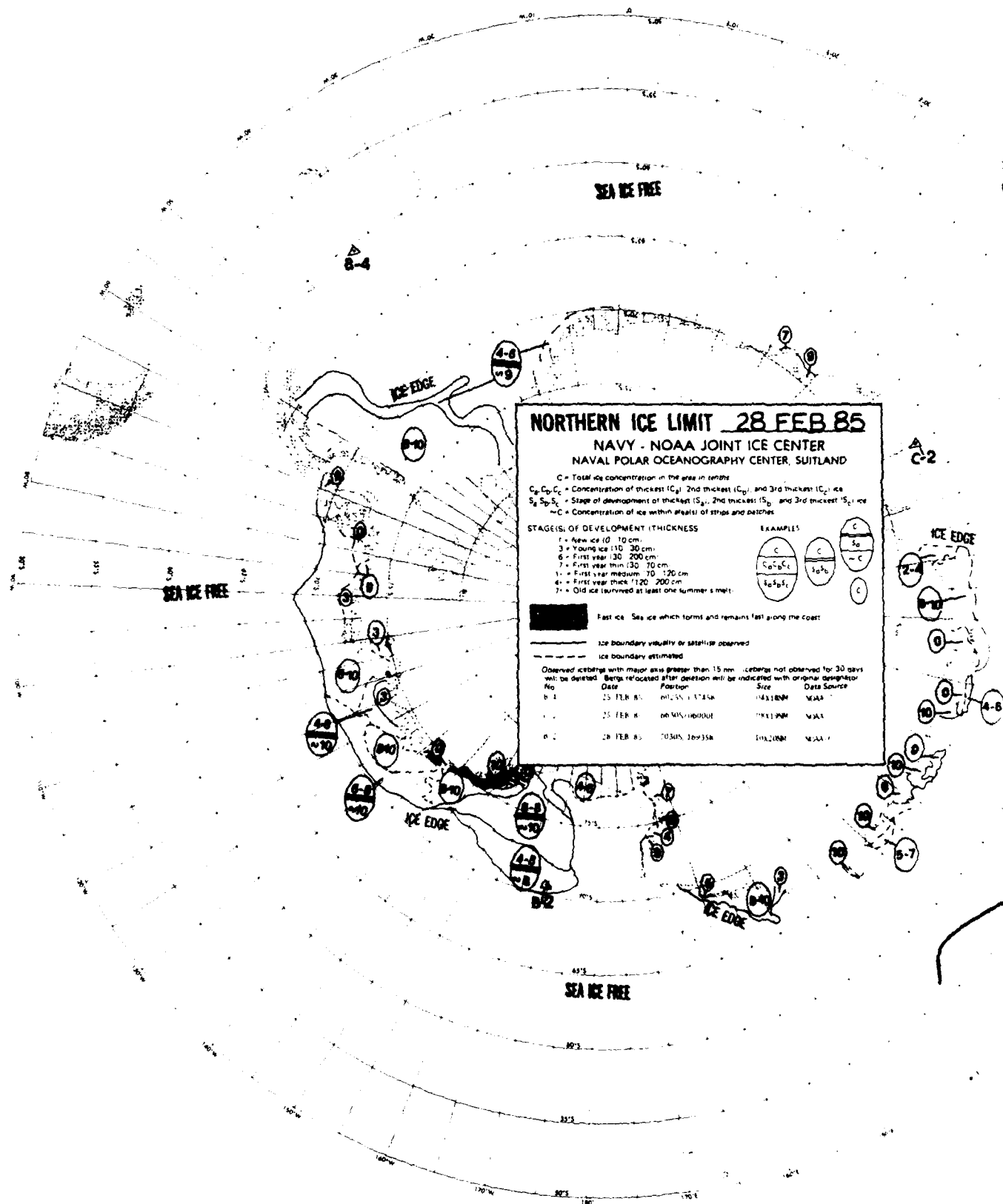
Ice boundary visually or satellite observed
Ice boundary estimated

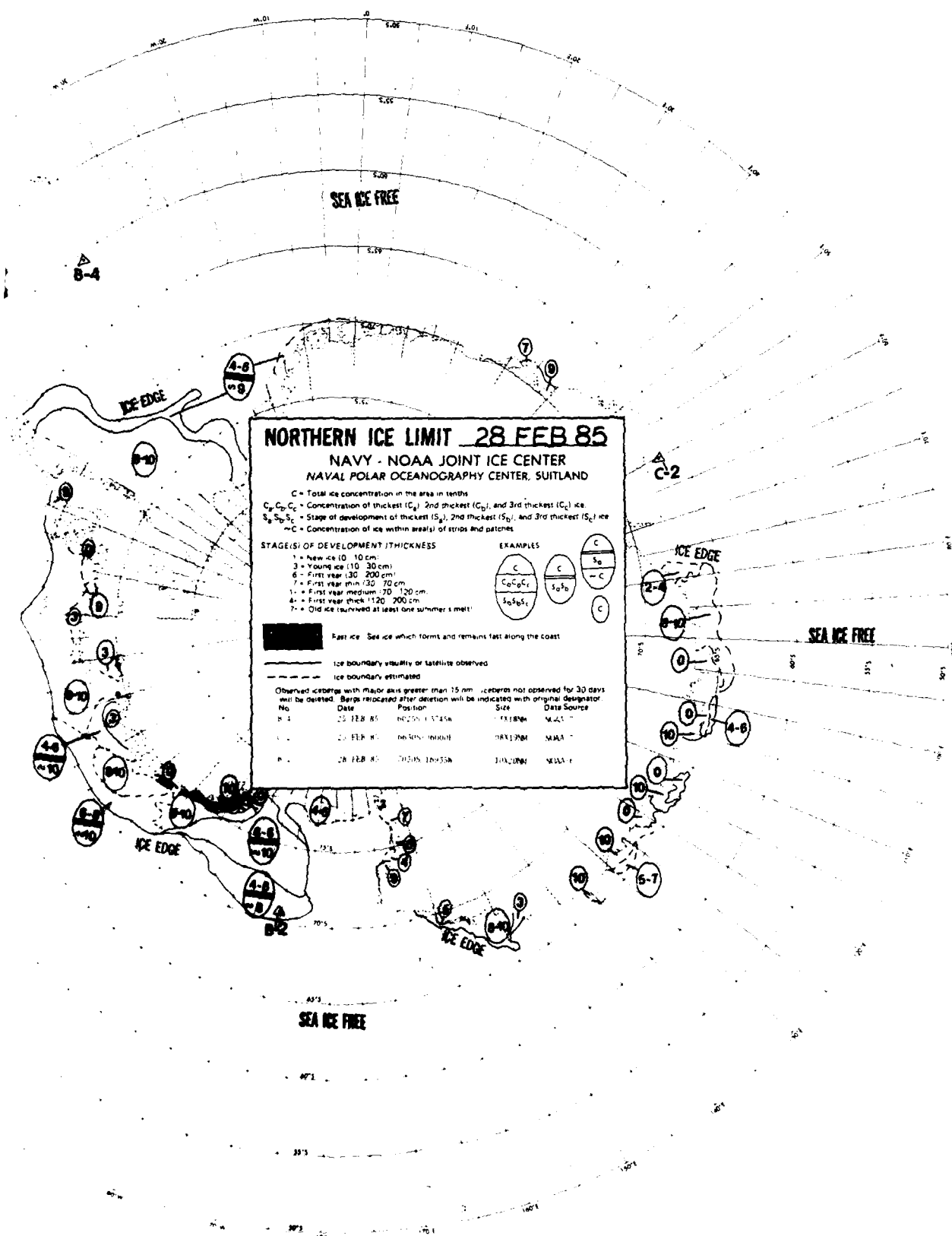
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

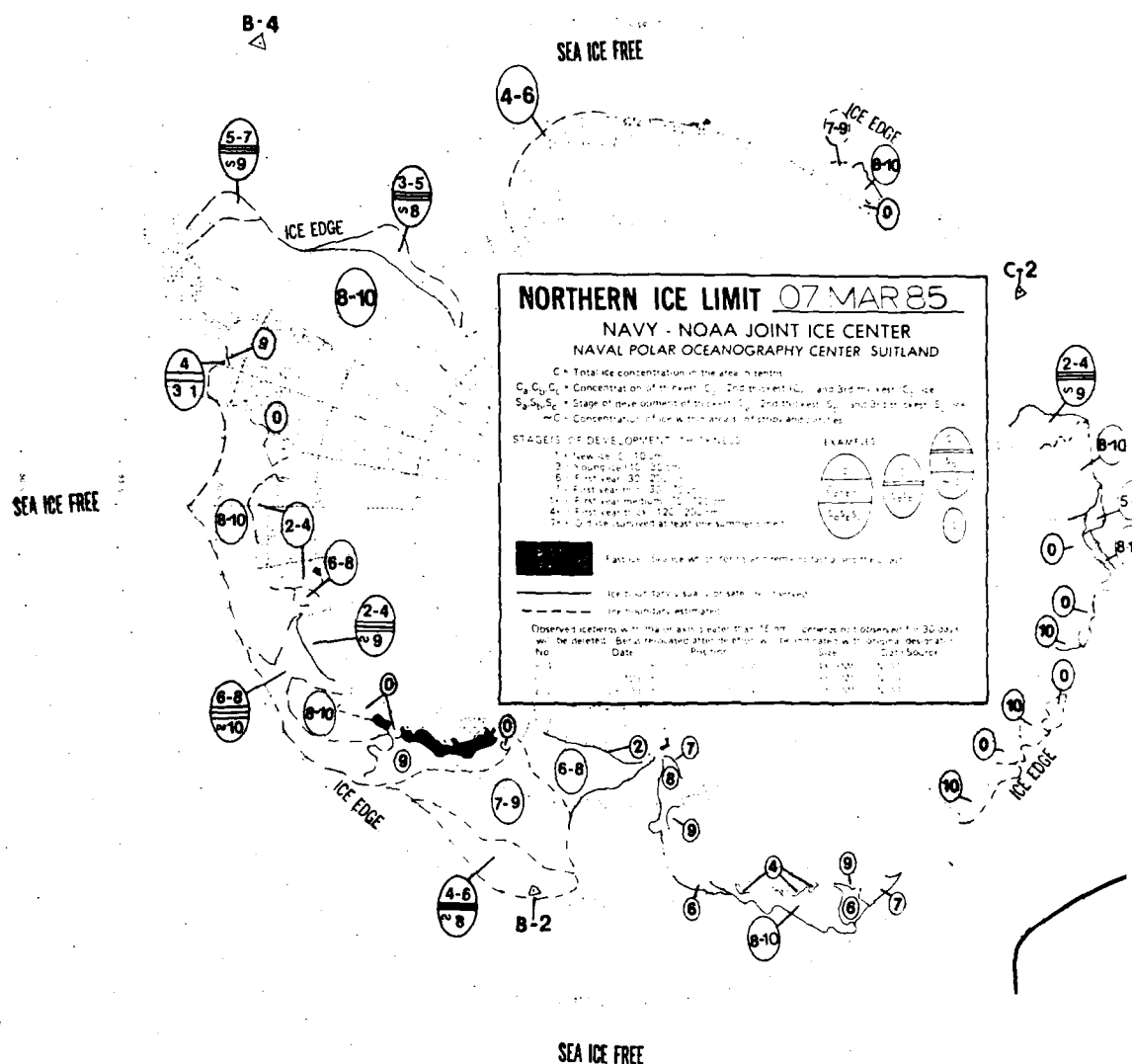
No.	Date	Position	Size	Data Source
B-1	28 JAN 85	60°55N 154°58W	32X11 NM	NMAA
C-2	20 FEB 85	66°55N 106°00W	08X1 NM	NMAA

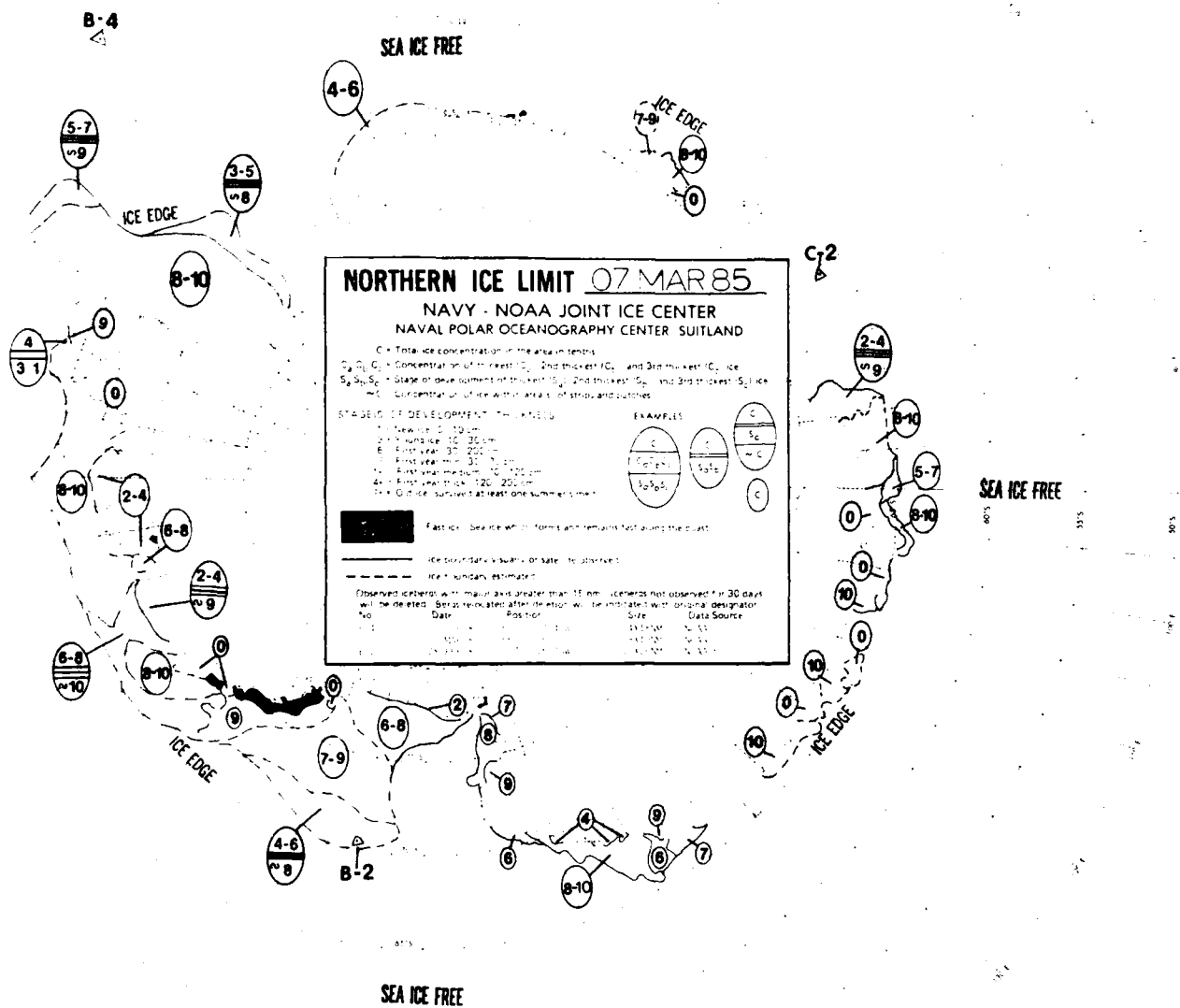
SEA ICE FREE

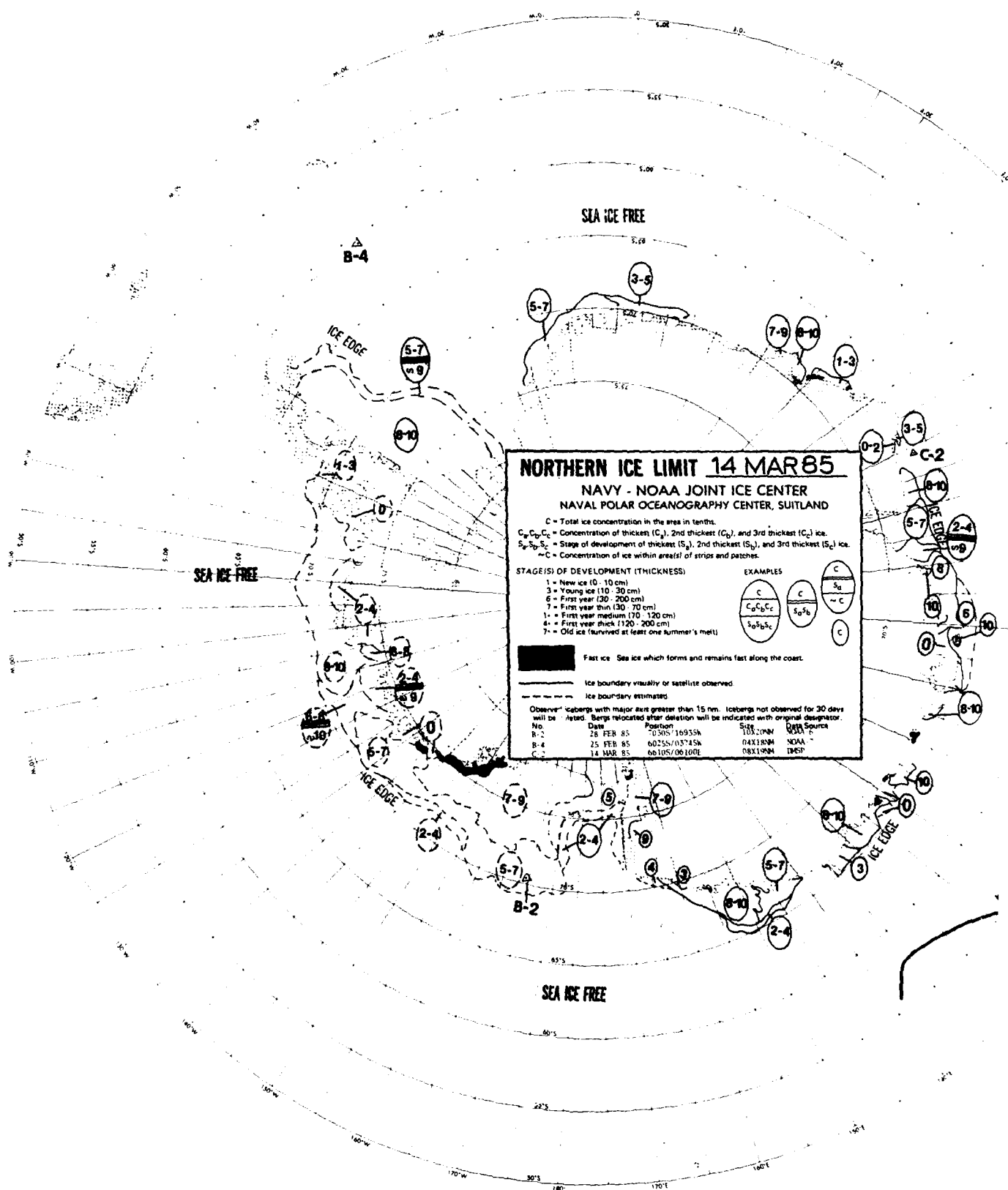
SEA ICE FREE

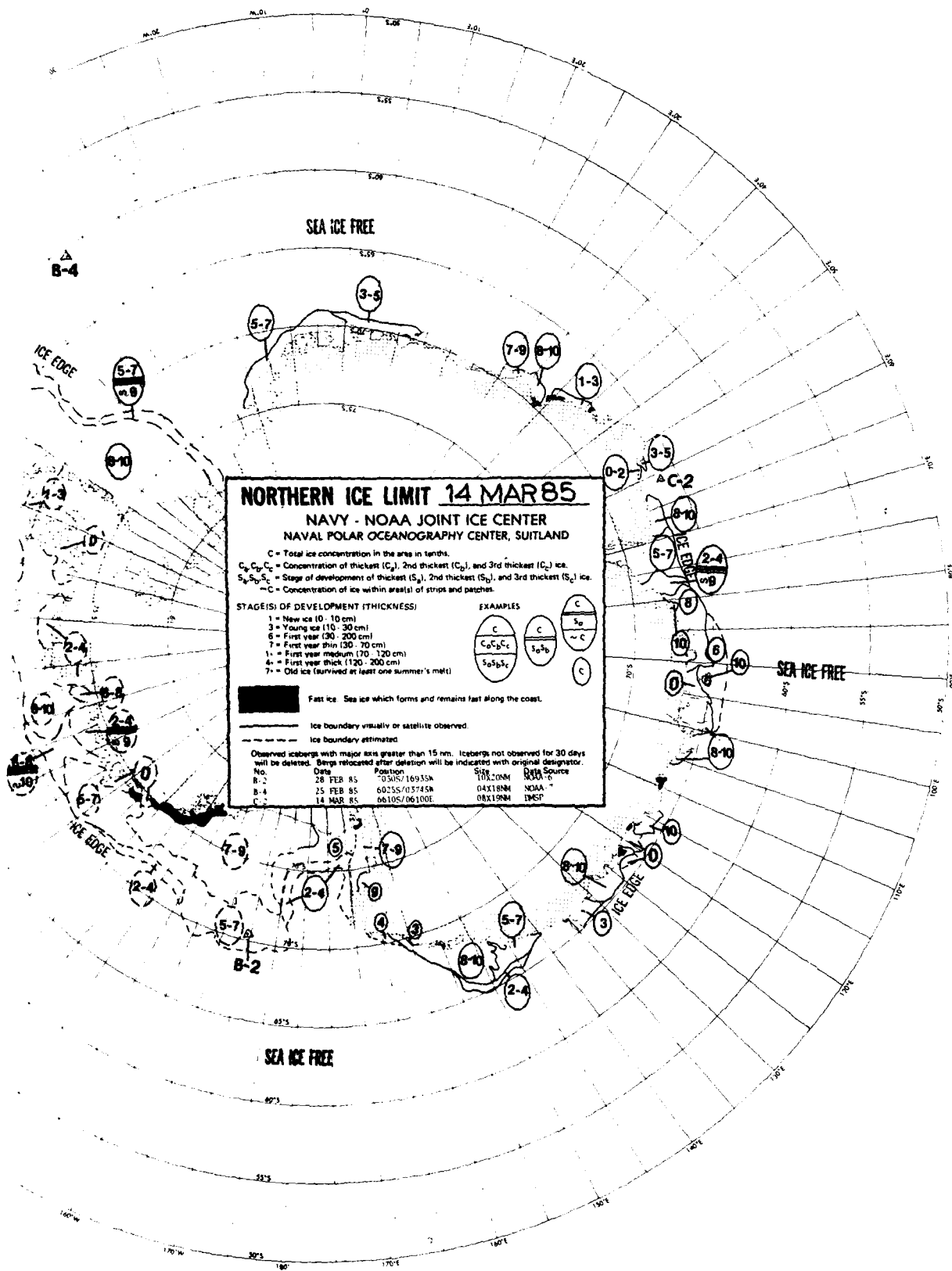


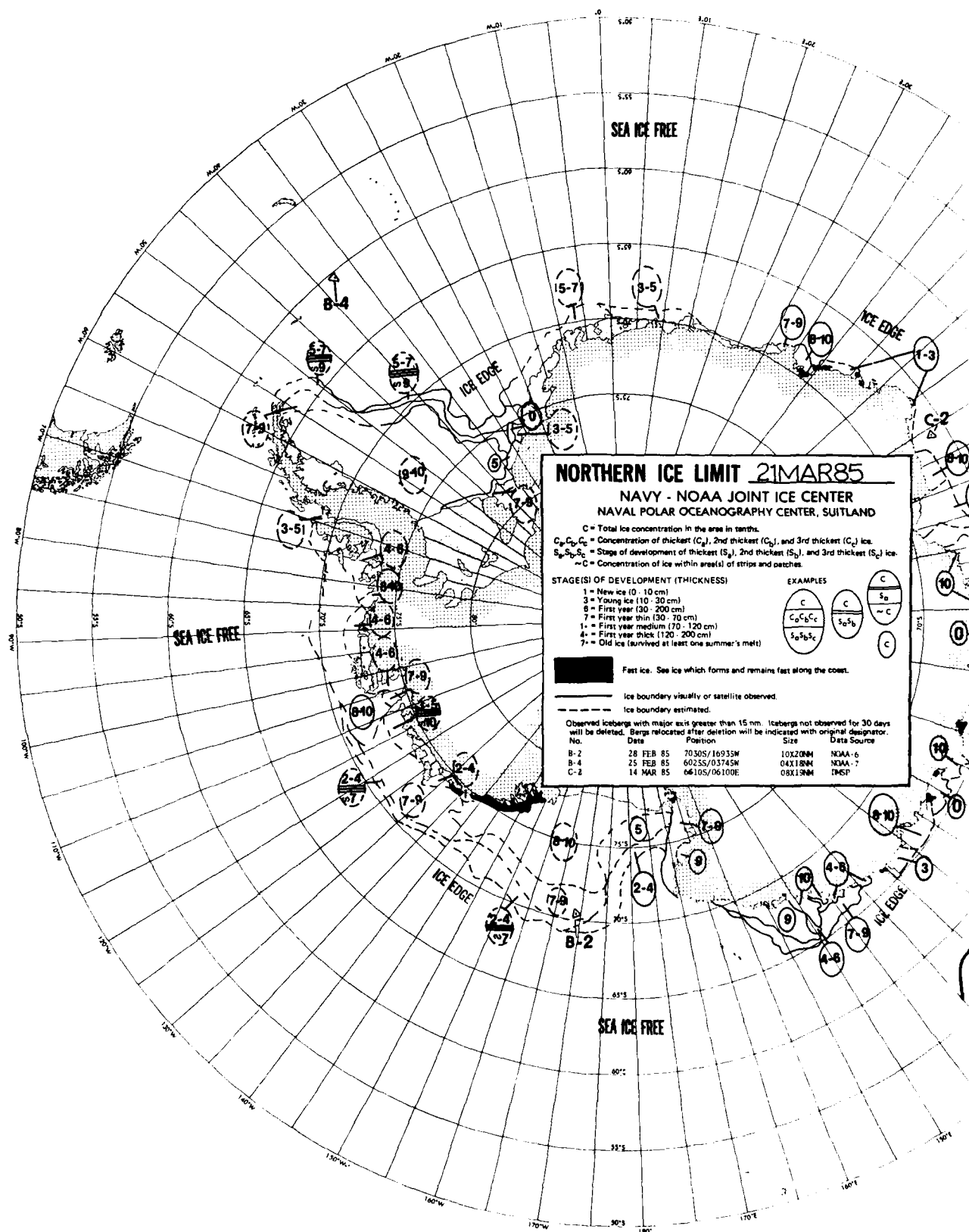


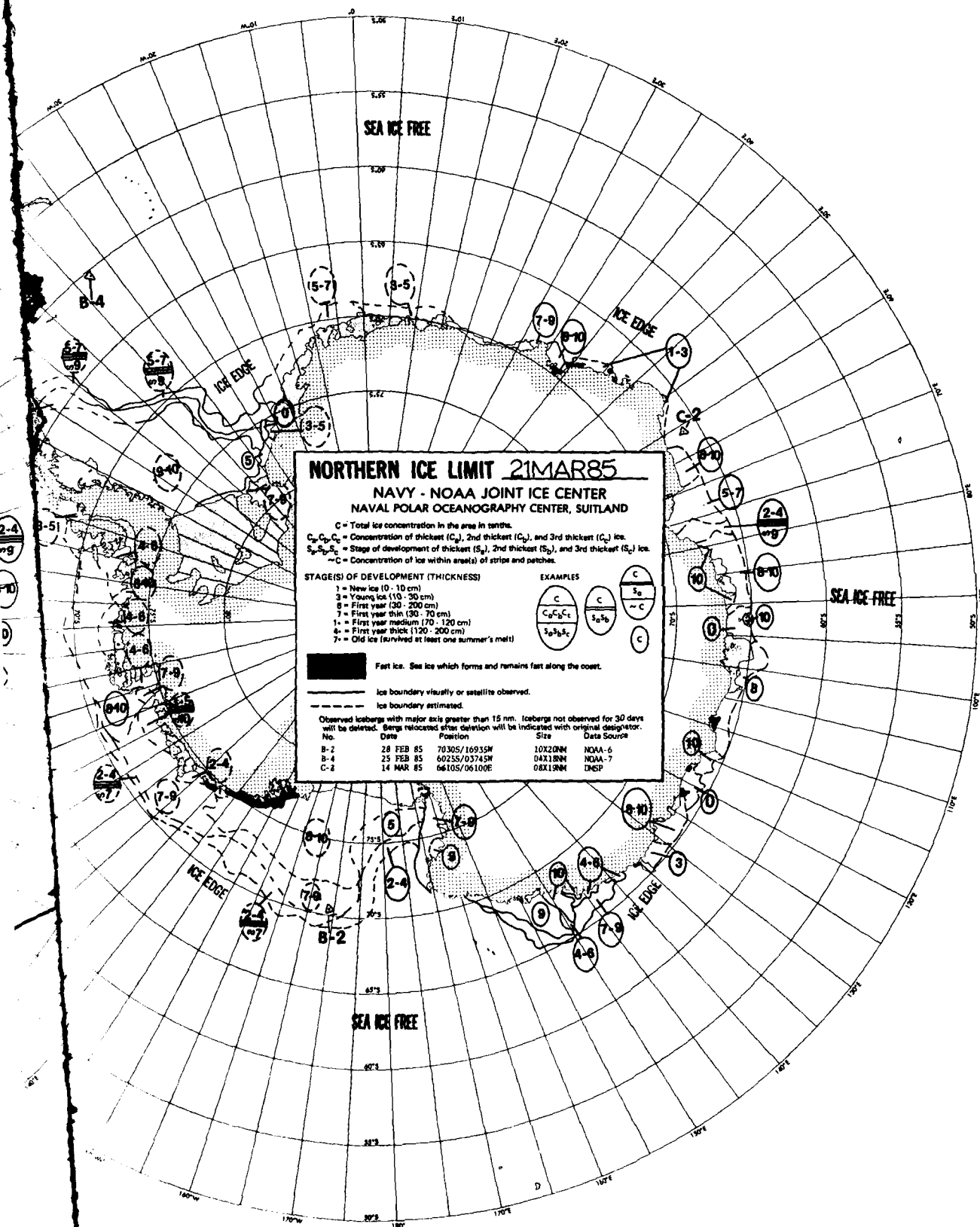


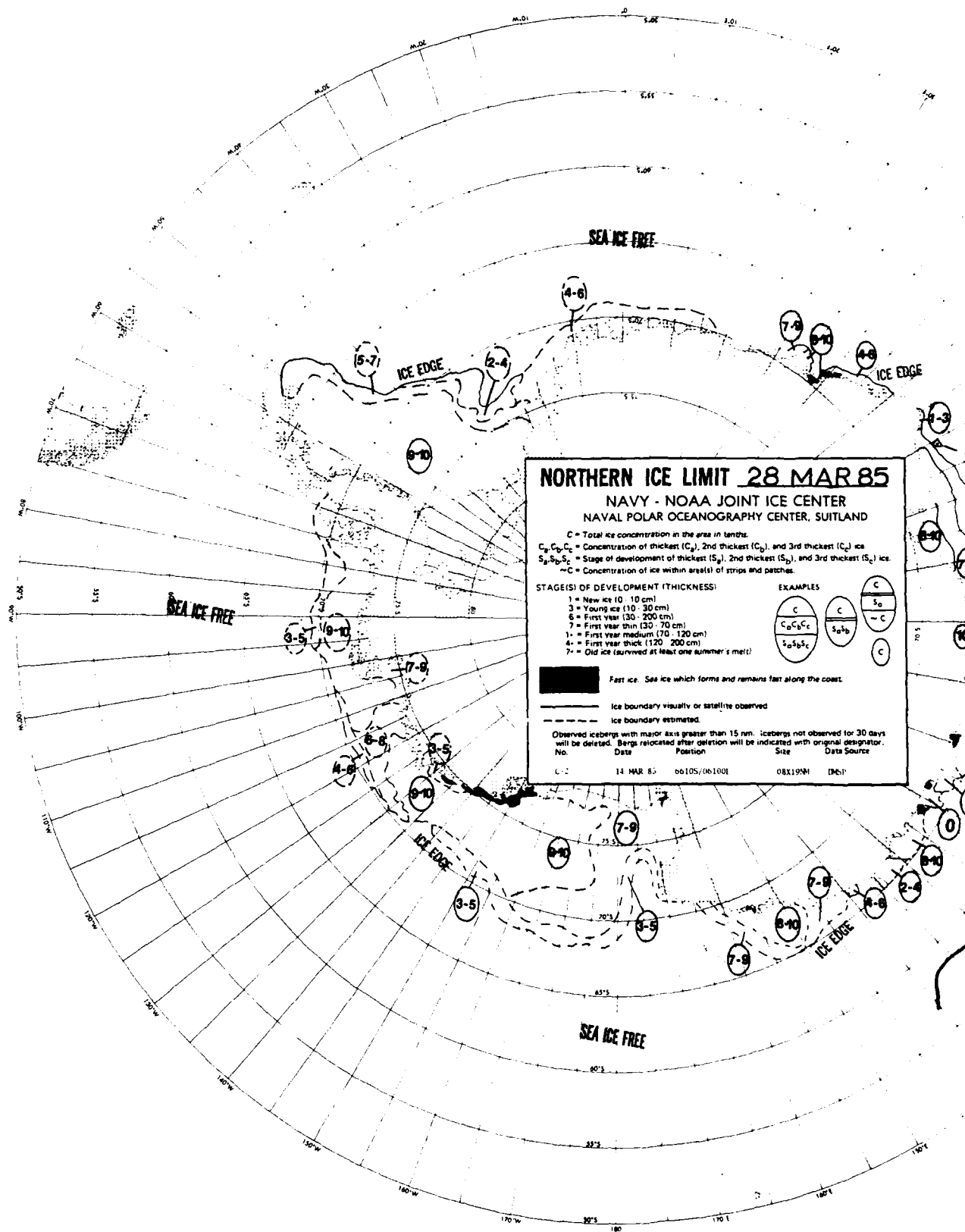












NORTHERN ICE LIMIT 28 MAR 85

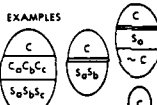
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast 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 original designator.

No.	Date	Position	Size	Data Source
C-2	14 MAR 85	66105/06100E	08X19NM	DMSP

SEA ICE FREE

SEA ICE FREE

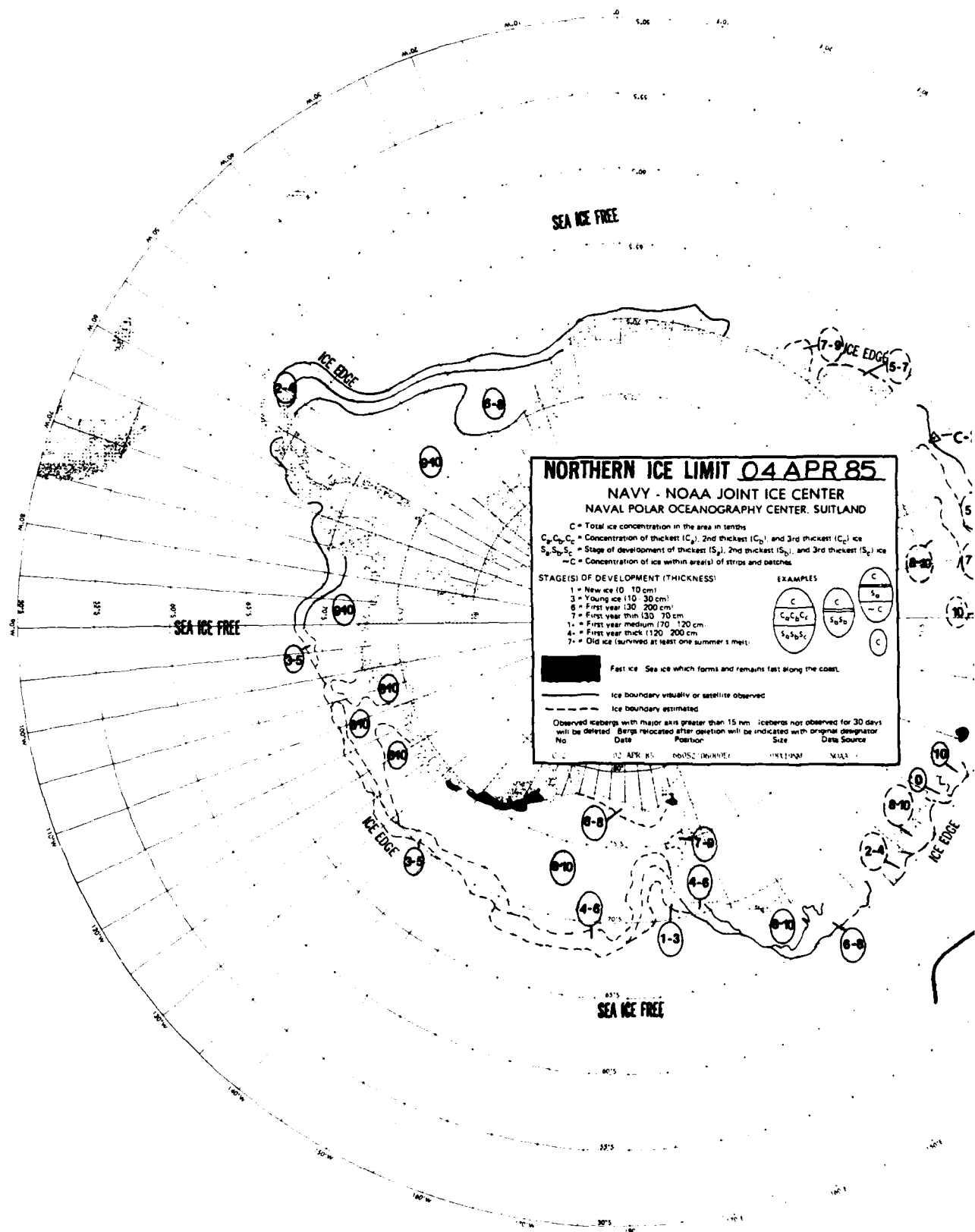
SEA ICE FREE

ICE EDGE

ICE EDGE

ICE EDGE

ICE EDGE



SEA ICE FREE

NORTHERN ICE LIMIT 04 APR 85

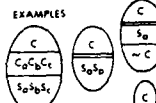
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁ C₂ C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁ S₂ S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
-C = Concentration of ice within areas of strips and patches

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1+ = First year medium (70 - 120 cm)
- 4+ = First year thick (120 - 200 cm)
- 7+ = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice: Sea ice which forms and remains fast along the coast.

Ice boundary visually or satellite observed

Ice boundary estimated

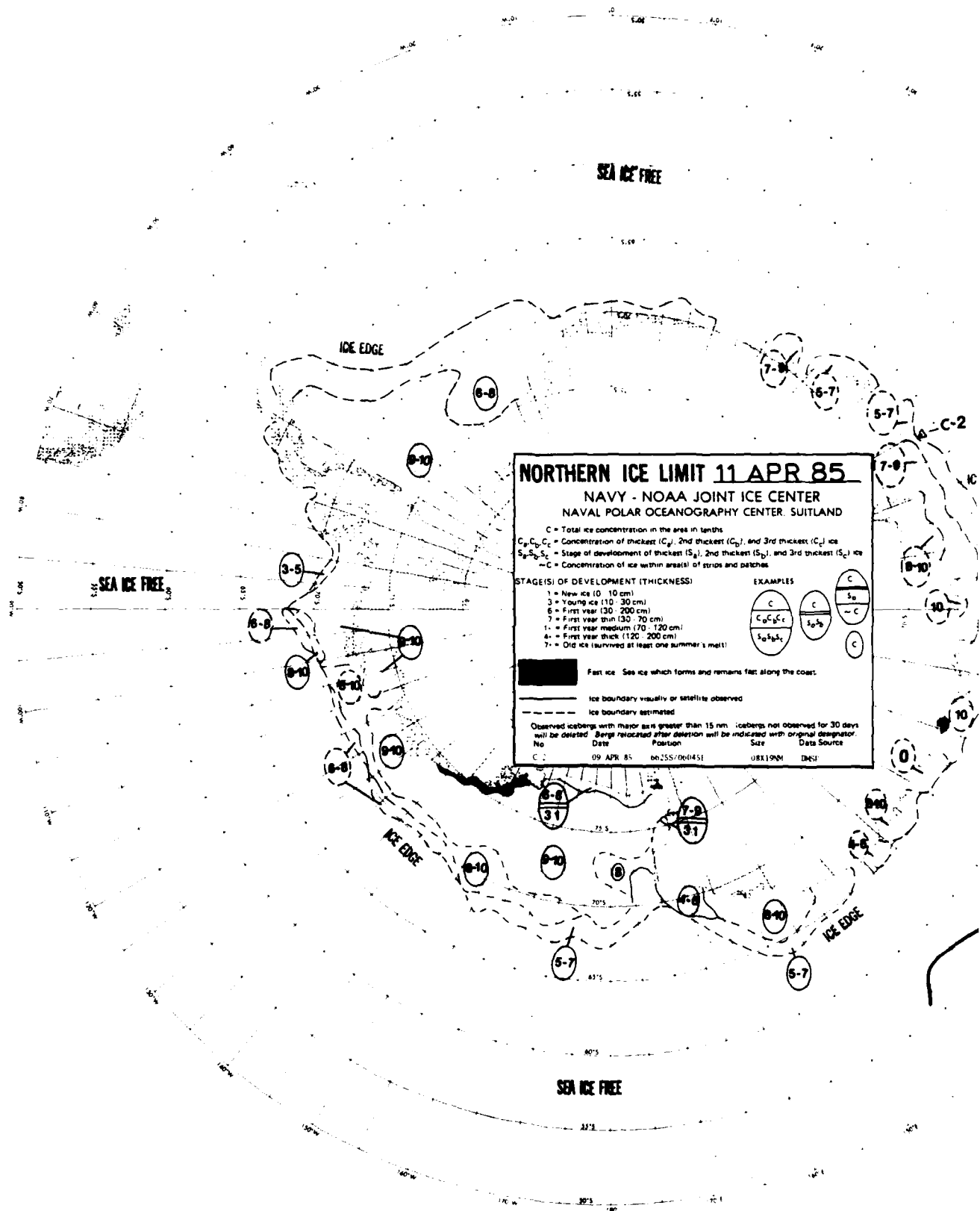
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

No. Date Position Size Data Source

04 APR 85 66052 (00000000) (00000000) (00000000)

SEA ICE FREE

SEA ICE FREE



NORTHERN ICE LIMIT 11 APR 85

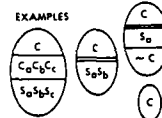
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C_aC_bC_c = Concentration of thickest (C_a), 2nd thickest (C_b), and 3rd thickest (C_c) ice.
S_aS_bS_c = Stage of development of thickest (S_a), 2nd thickest (S_b), and 3rd thickest (S_c) ice.
~C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

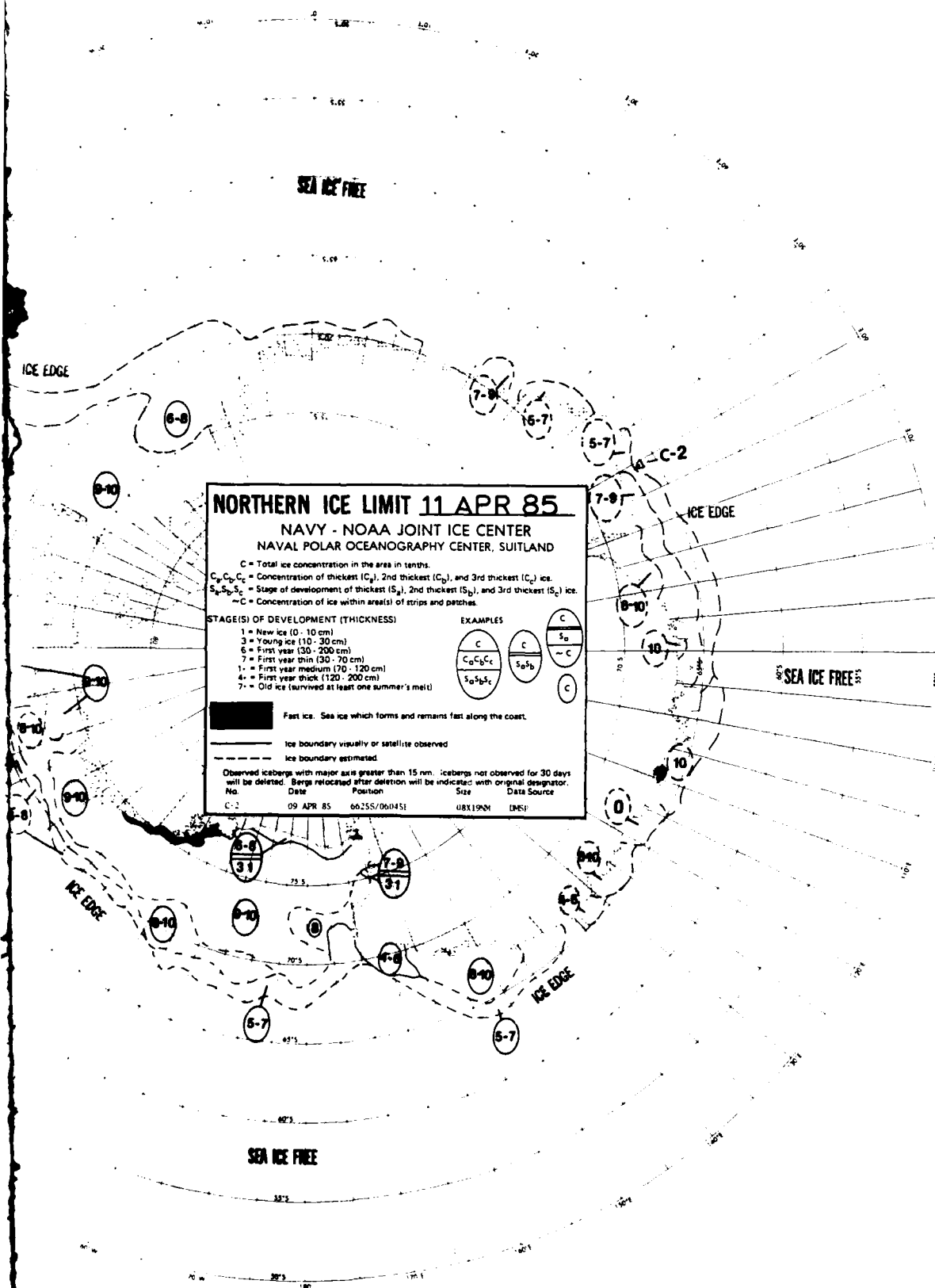


Fast ice. Sea ice which forms and remains fast along the coast.

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 original designator.

No.	Date	Position	Size	Data Source
C-2	09 APR 85	66255/060451	08X19NM	DMSP



SEA ICE FREE

NORTHERN ICE LIMIT 18 APR 85

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER SUITLAND

1. Total gas concentration in the area in tenths
 2. Concentration of thick gas 1, 2nd thick gas, and 3rd thick gas, etc.
 3. Gas movement of thick gas 1, 2nd thick gas, and 3rd thick gas, etc.
 4. Concentration of gas within areas 1, 2 strips and patches

EXAMPLES: 1. FIVE LEVELS OF GAS THICKNESSES

1. Thick gas 1 10 cm
 2. Thick gas 2 30 cm
 3. Thin gas 30 200 cm
 4. Thin gas thin 30 200 cm
 5. First year medium 10 200 cm
 6. First year thick 20 200 cm
 7. 10 cm thin gas 100 cm movement

EXAMPLES:

The diagrams illustrate the distribution of gas in a cross-section. The first diagram shows a thick gas layer (10 cm) at the bottom, a thin gas layer (30 cm) above it, and a first year medium layer (10 cm) above that. The second diagram shows a thick gas layer (10 cm) at the bottom, a thin gas layer (30 cm) above it, and a first year thick layer (20 cm) above that. The third diagram shows a thick gas layer (10 cm) at the bottom, a thin gas layer (30 cm) above it, and a first year thick layer (20 cm) above that, with a 10 cm thin gas layer (100 cm movement) above that.

TABLE 3. DEVELOPMENT THICKNESS

- New ice ≤ 10 cm
- 1st year thin 30-100 cm
- 1st year thin 30-100 cm
- 1st year thin 30-100 cm
- 1st year medium 10-20 cm
- 1st year thick 10-200 cm
- 2nd year medium at least 10 cm

61 APR 19 1955

EXAMPLES

The diagrams show three eggs. The first egg is cracked open horizontally, with the top half labeled 'S₁' and the bottom half labeled 'S₂'. The second egg is whole and labeled 'S₃'. The third egg is broken into two pieces, with the top piece labeled 'S₄' and the bottom piece labeled 'S₅'.

Fast ice is the ice which forms and remains fast along the coast.

ice boundary visually or tactilely distinct

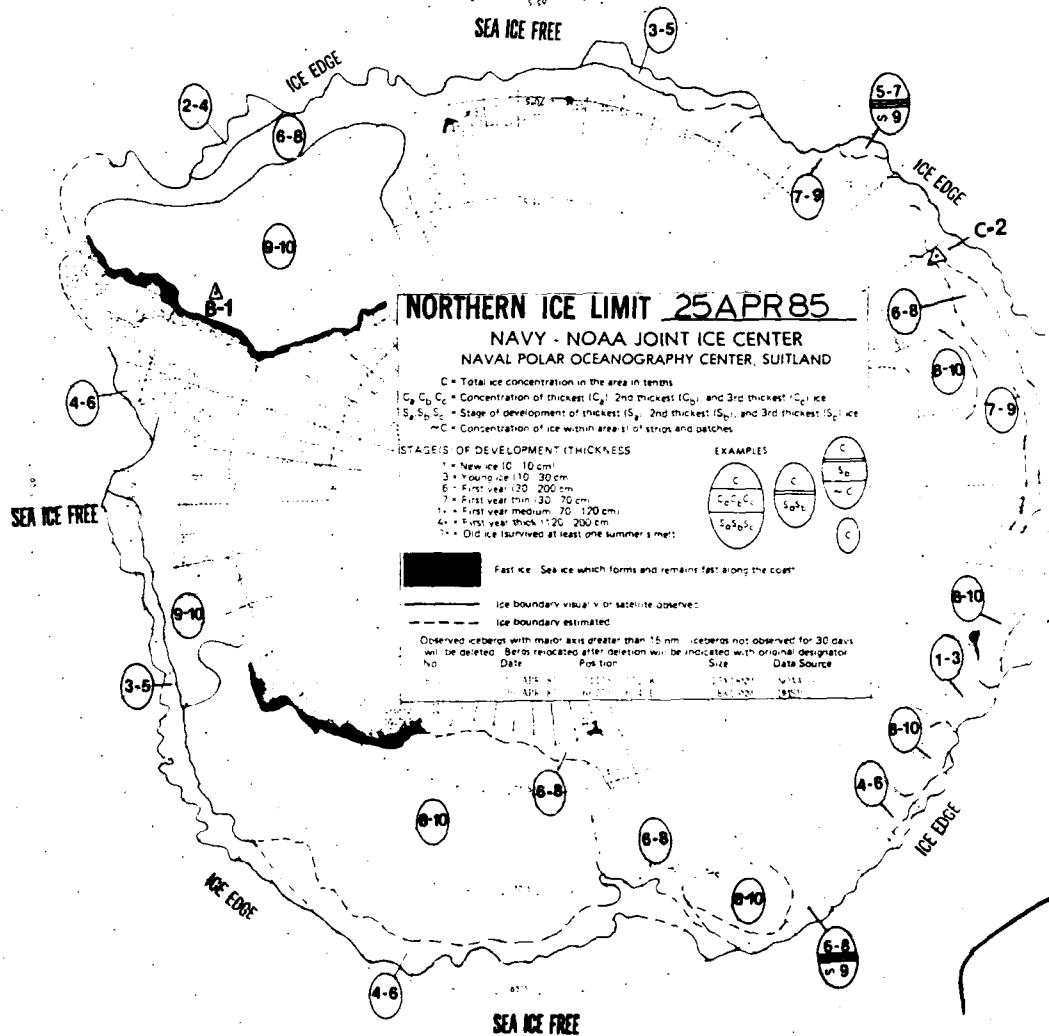
— — — — — (9) Number, estimate.

Observed icebergs with major axis greater than 15 m. Iceberg not observed for 30 days will be deleted. Berge relocated after deletion will be marked with original designation.

Date	Position	Size	Date Source
------	----------	------	-------------

W/	to be deleted	Berger relocated after deletion will be	date with original record
by	Date	Position	Size Date Source
	10/1/74	10/1/74	10/1/74
	10/1/74	10/1/74	10/1/74

SEA ICE FREE



NORTHERN ICE LIMIT 25 APR 85

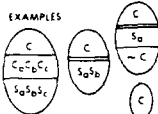
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

- C = Total ice concentration in the area in tenths
- C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
- S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
- C = Concentration of ice within area of strips and patches

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10-10 cm)
- 2 = Young ice (10-30 cm)
- 3 = First year (30-200 cm)
- 4 = First year thin (30-70 cm)
- 5 = First year medium (70-120 cm)
- 6 = First year thick (120-200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

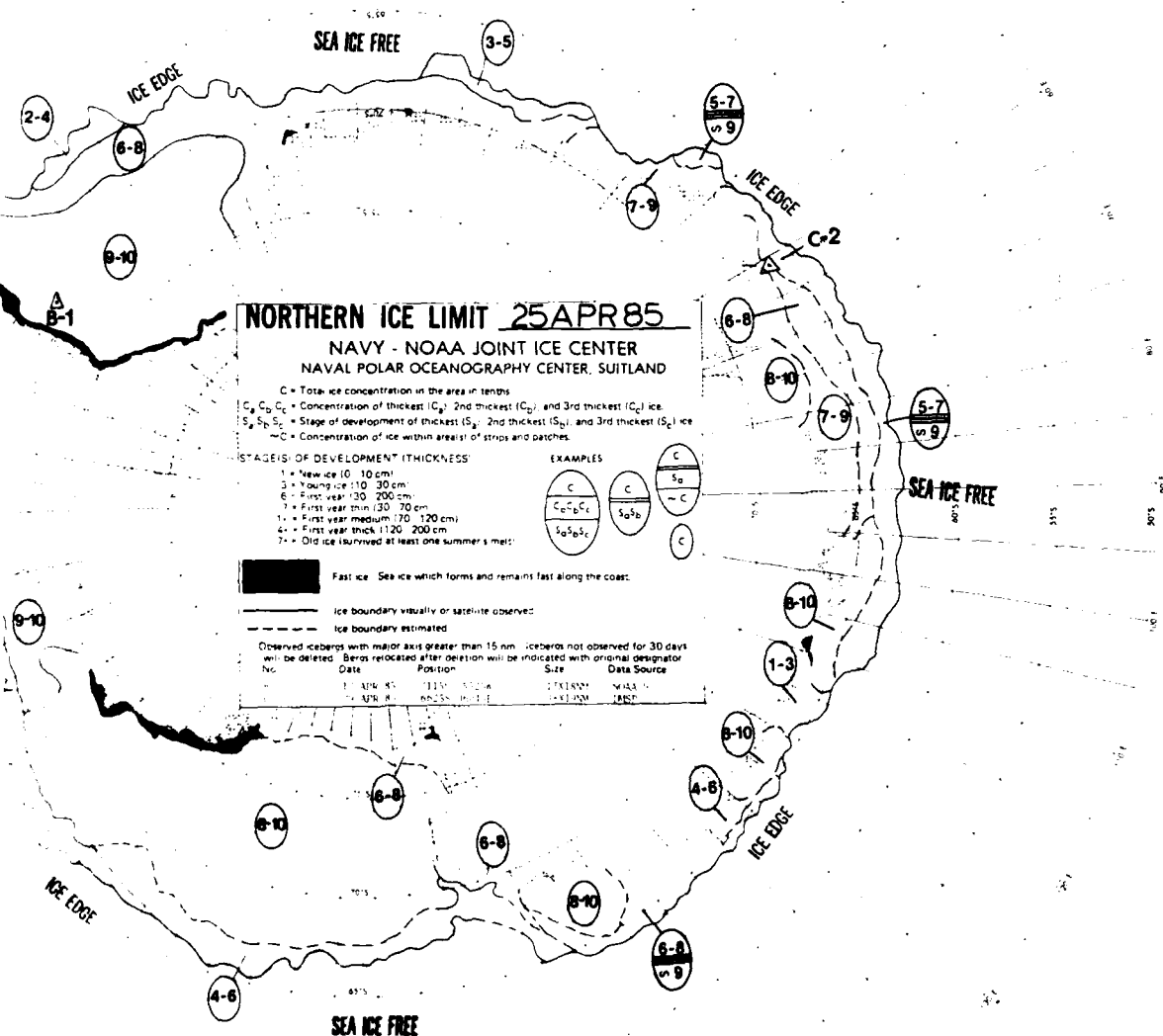


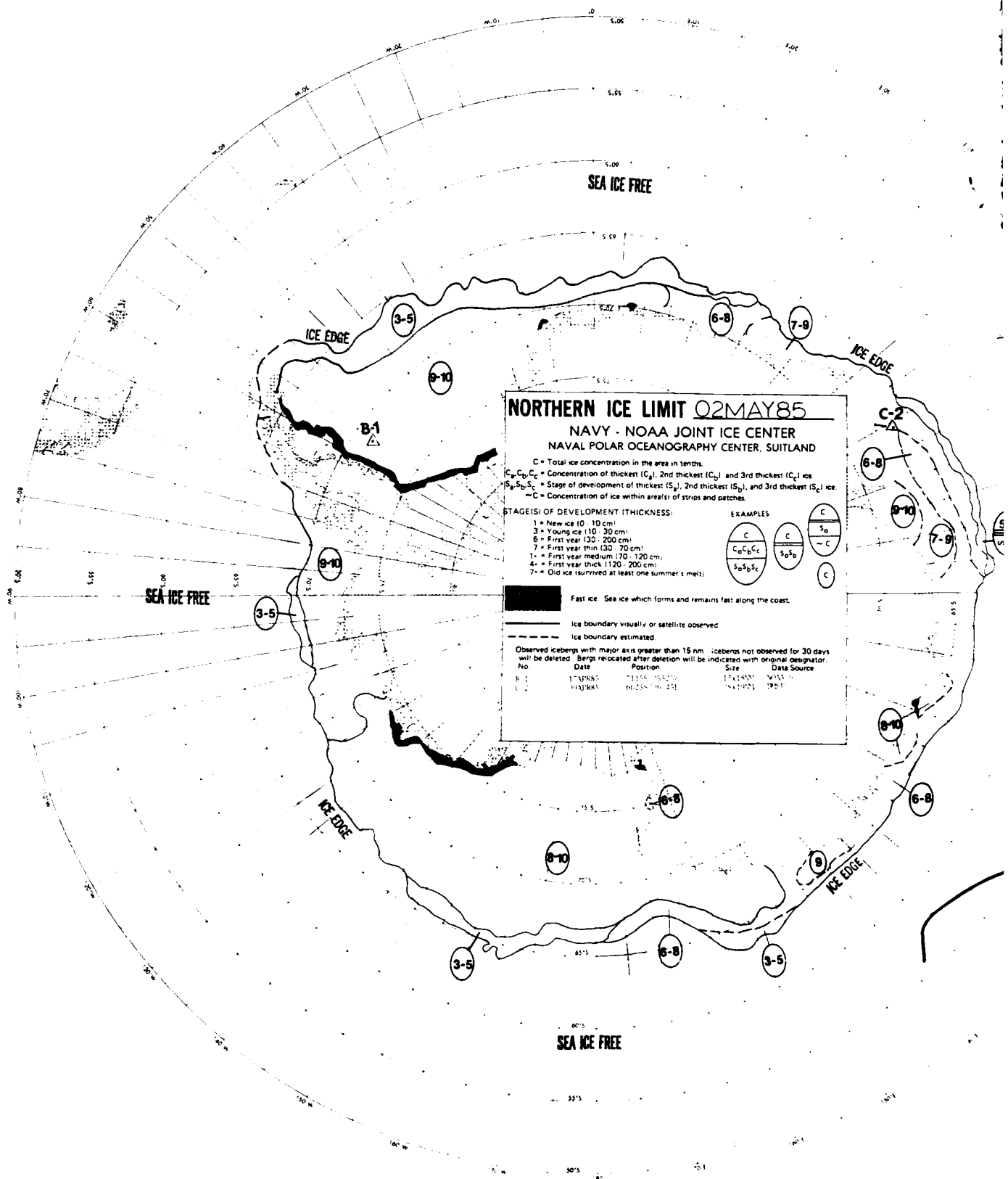
Fast ice: Sea ice which forms and remains fast along the coast.

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. Berms relocated after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
1	APR 85	111° 15' W 72° 15' N	17X18NM	NOAA
2	APR 85	112° 15' W 72° 15' N	14X12NM	NOAA





NORTHERN ICE LIMIT 02MAY85

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

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 -C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS):
 1 = New ice (0 - 10 cm)
 3 = Young ice (10 - 30 cm)
 6 = First year thin (30 - 200 cm)
 7 = First year thin (30 - 70 cm)
 1 = First year medium (70 - 120 cm)
 4 = First year thick (120 - 200 cm)
 7 = Old ice (survived at least one summer's melt)

EXAMPLES



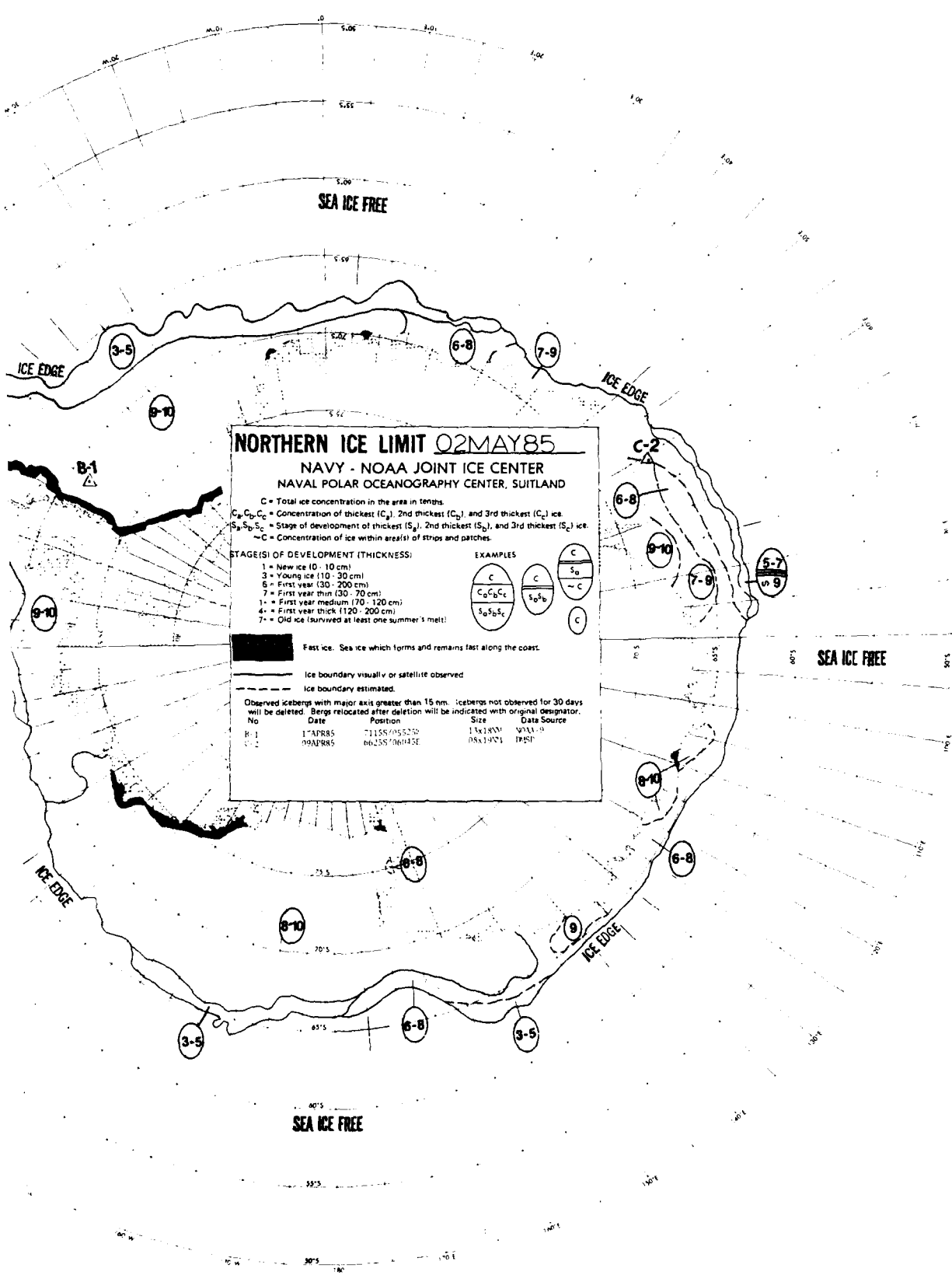
Fast ice. Sea ice which forms and remains fast along the coast.

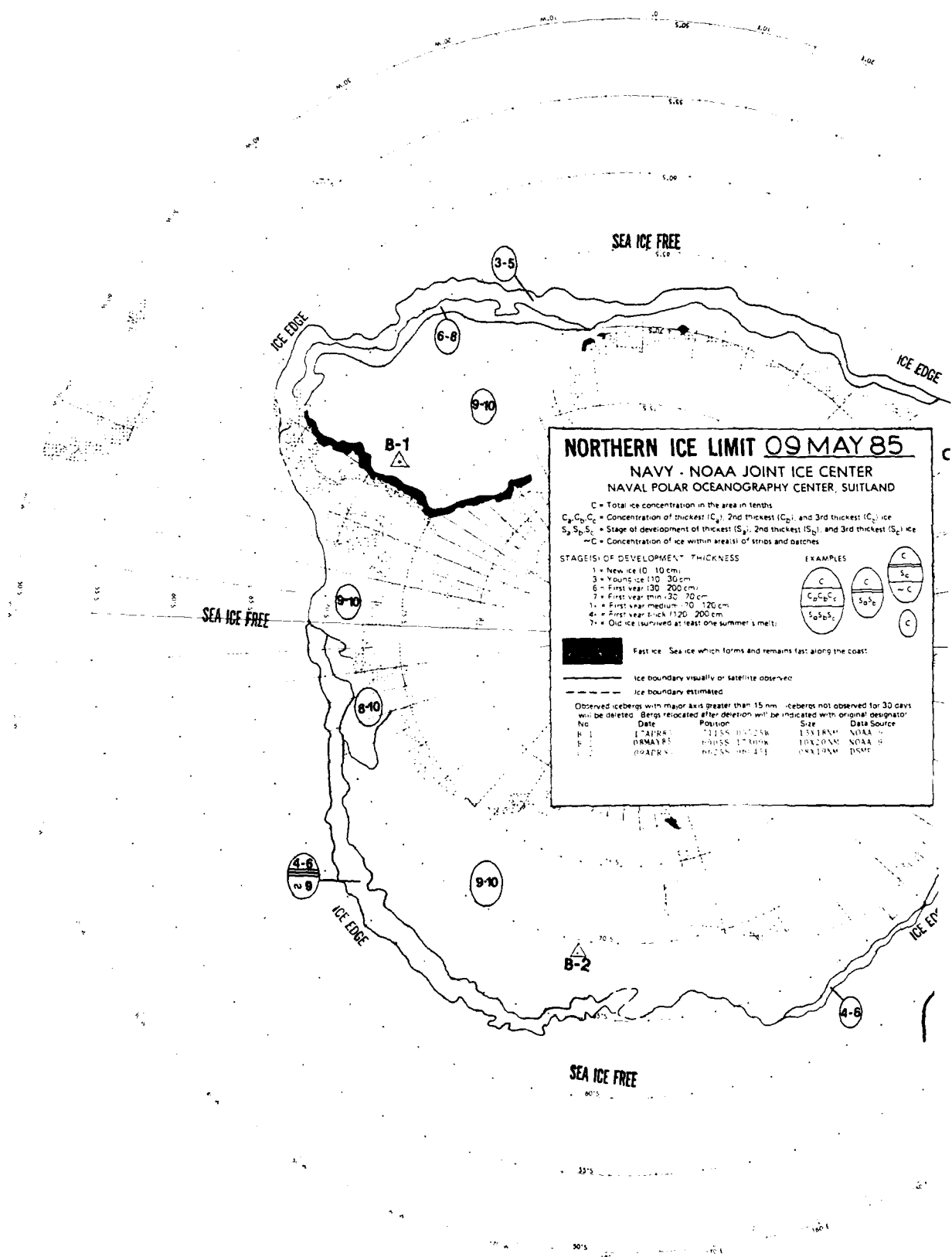
Ice boundary visually or satellite observed

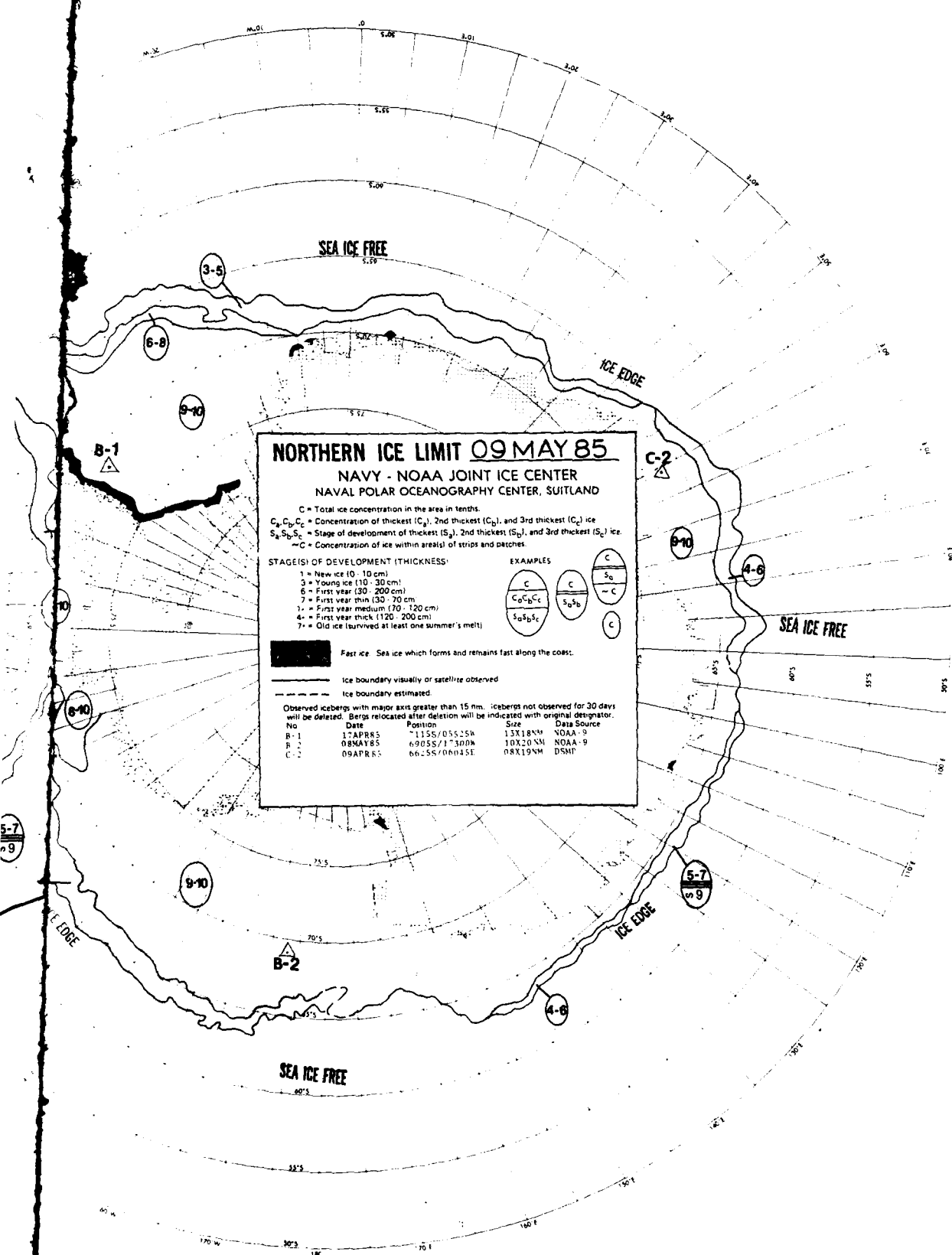
Ice boundary estimated.

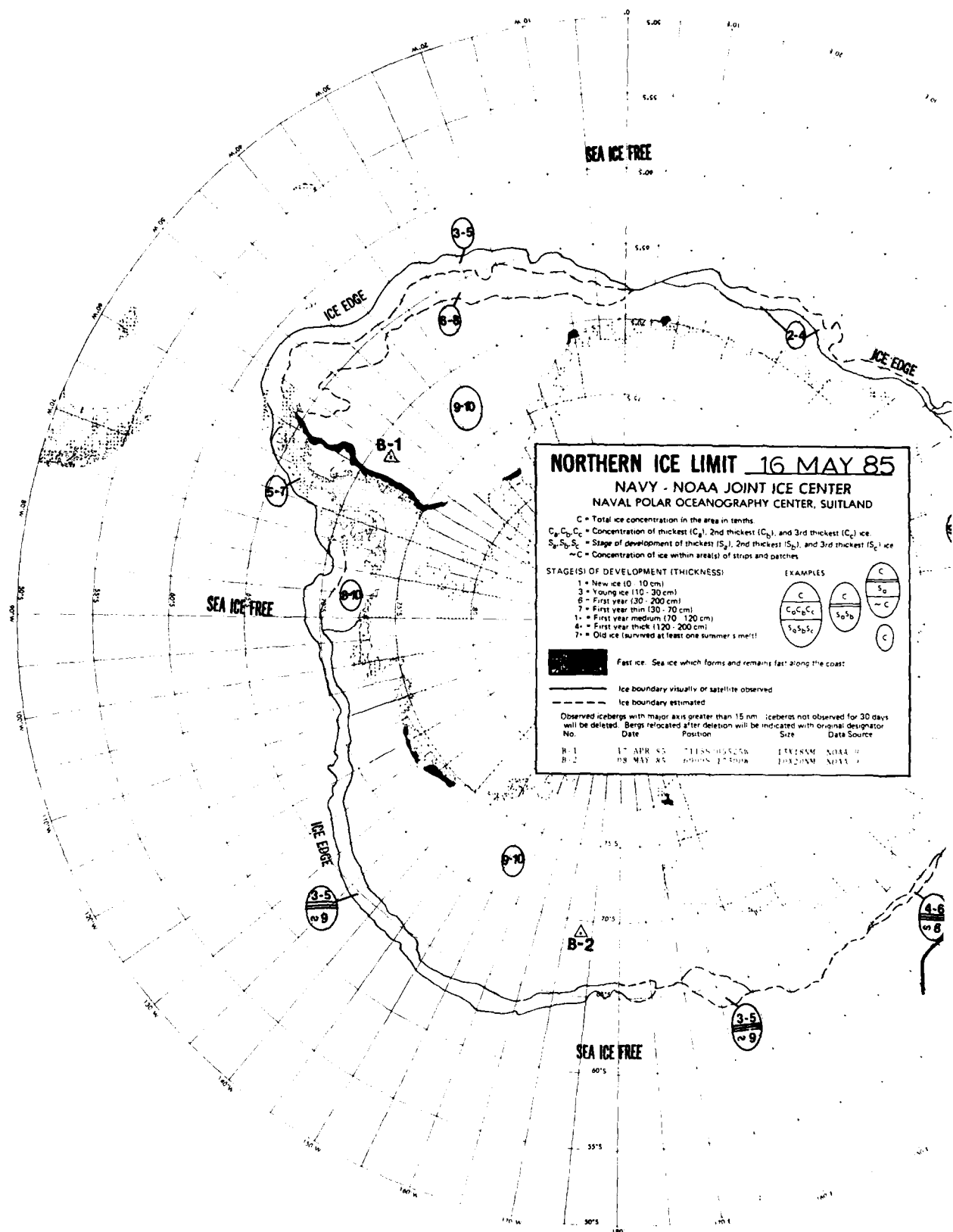
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

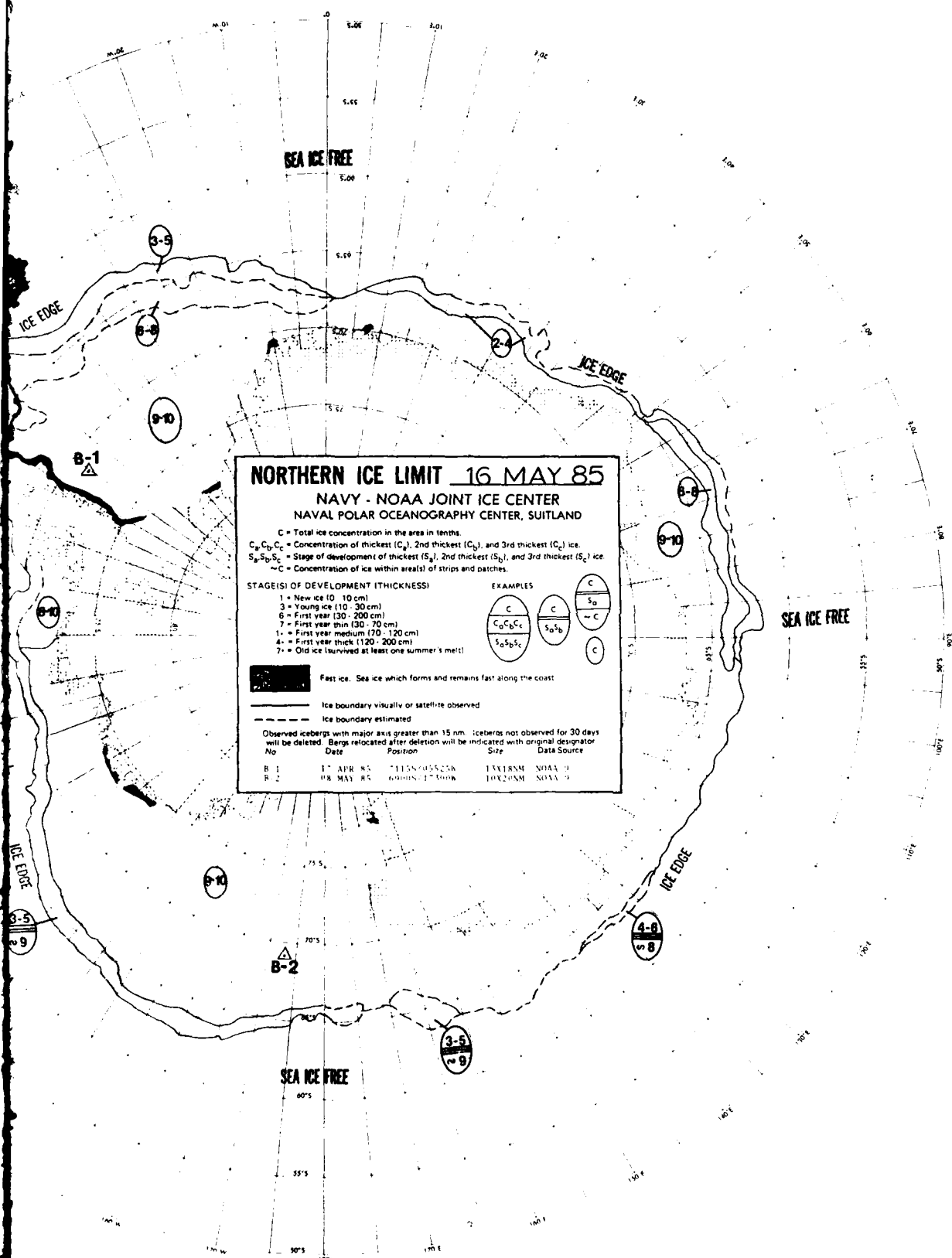
No.	Date	Position	Size	Data Source
B-1	1 APR 85	7115S/0552W	13x18NM	WVX-9
C-2	09 APR 85	6625S/06043E	05x19NM	TRSP

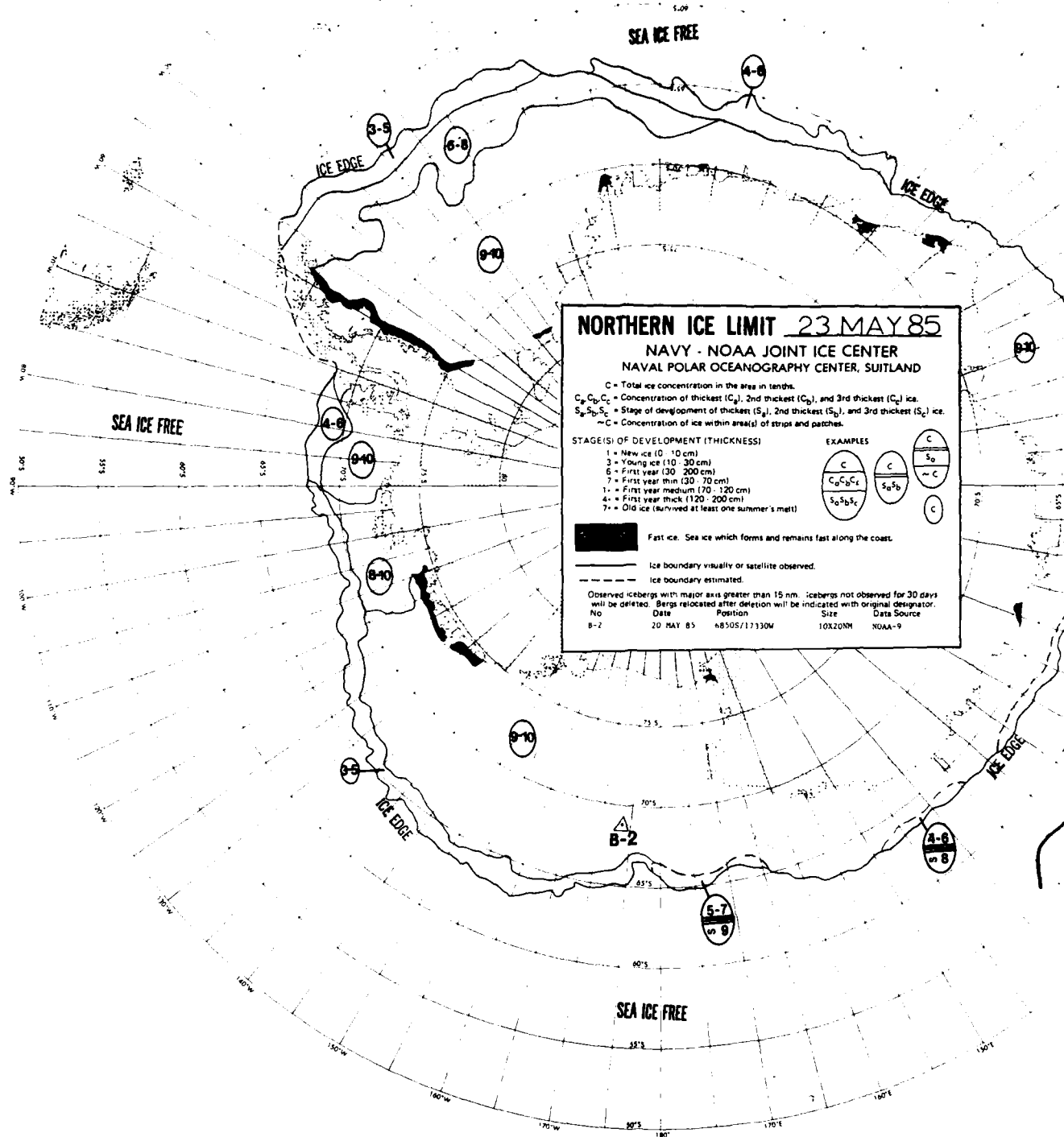


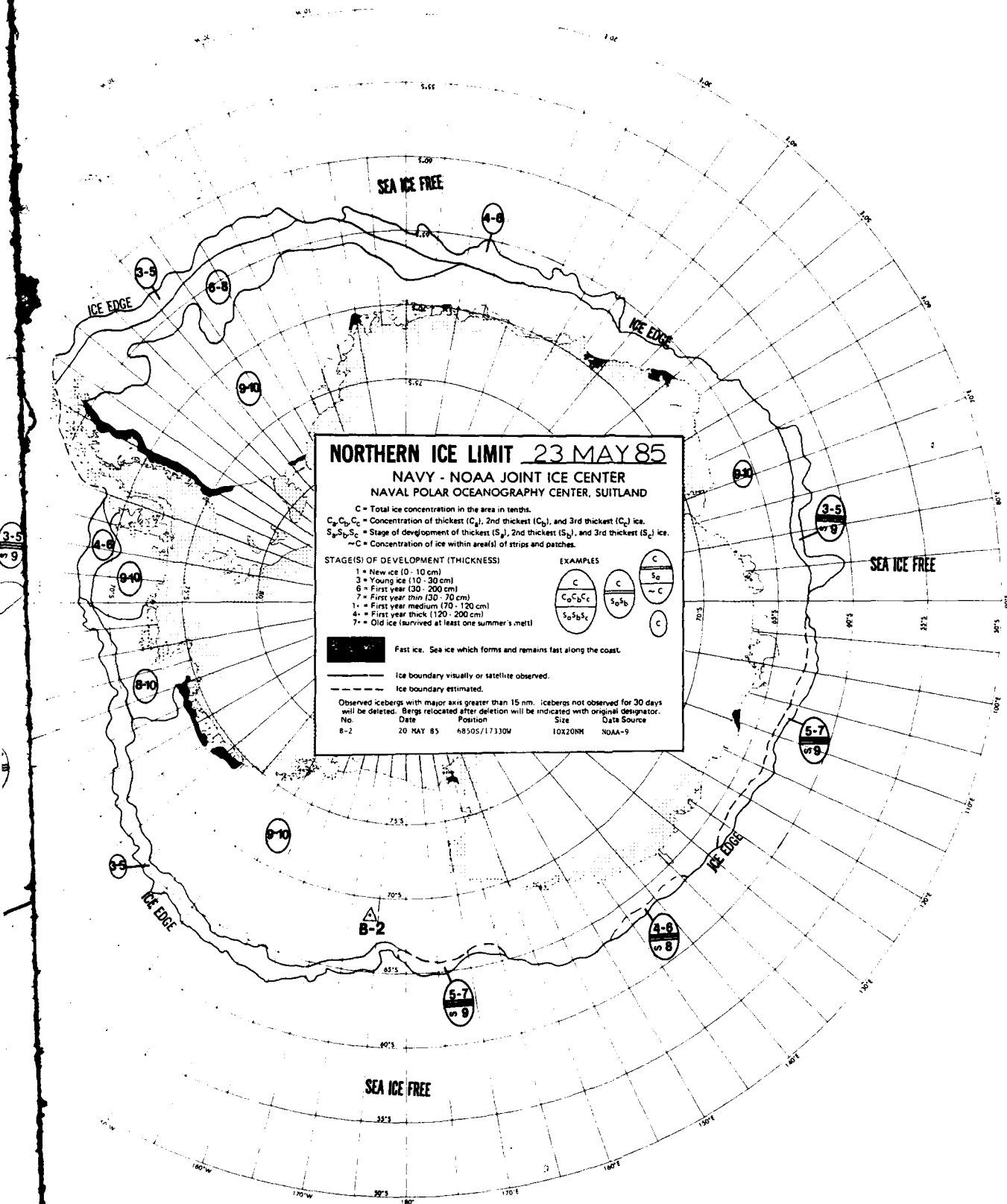


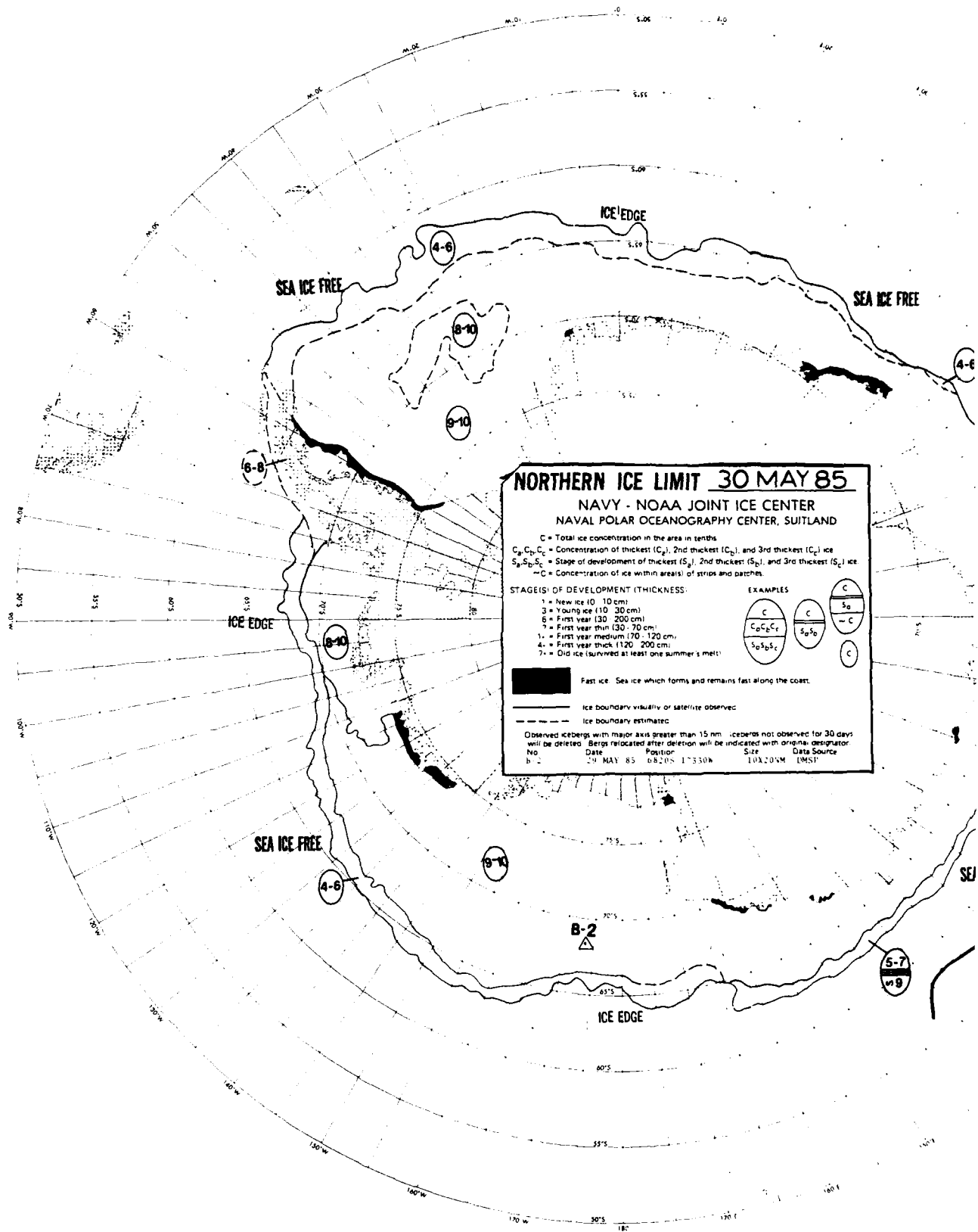


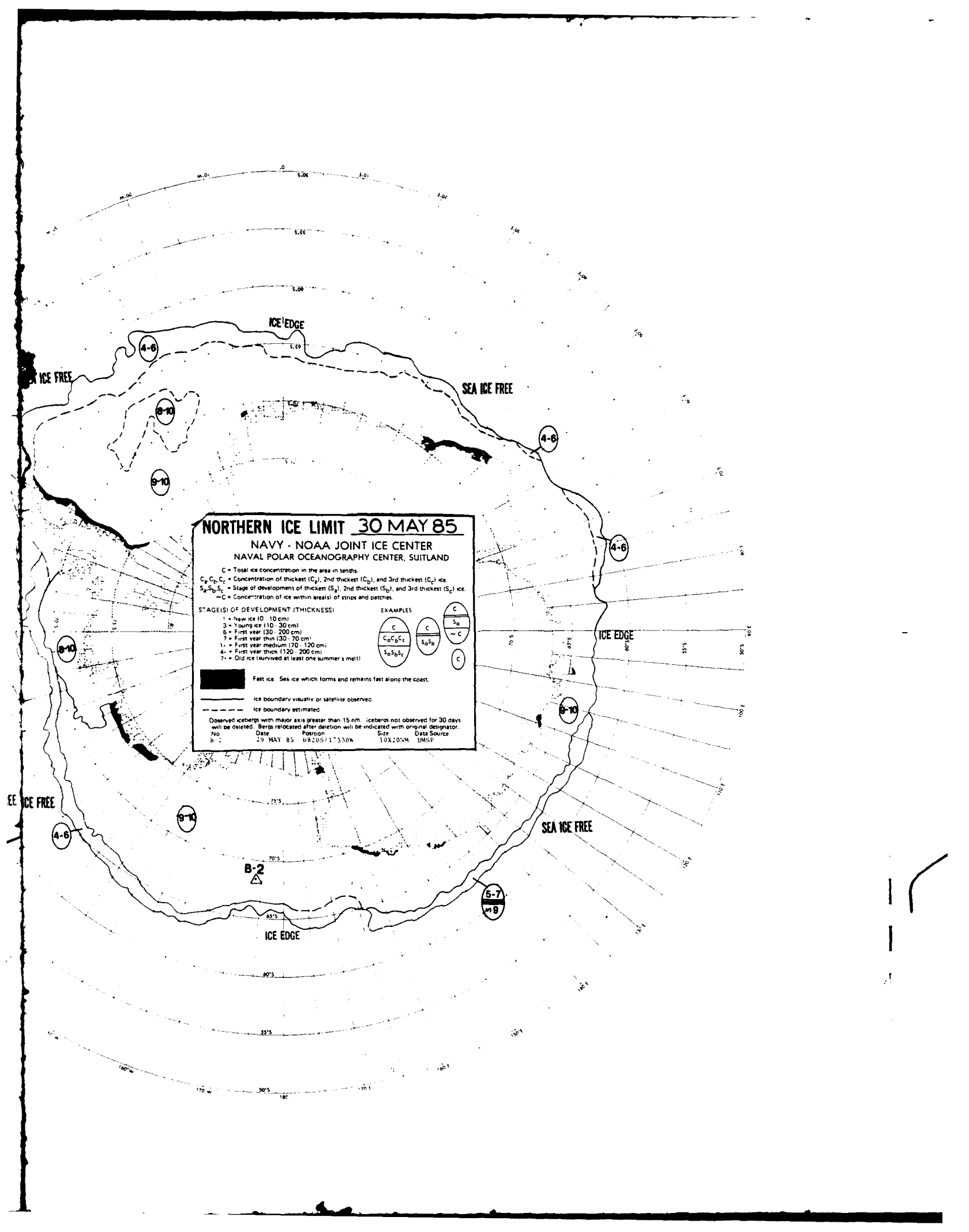


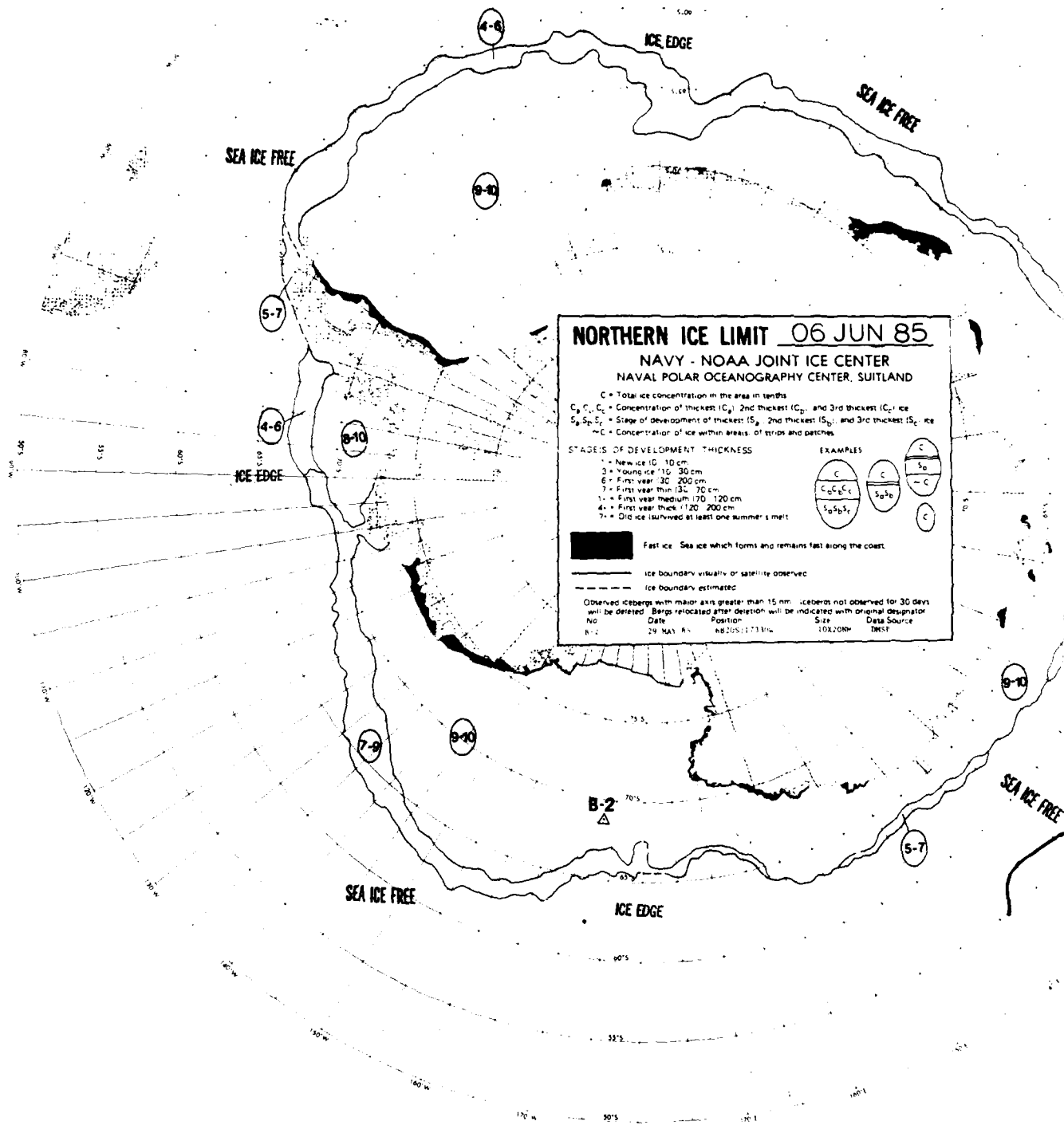












NORTHERN ICE LIMIT 06 JUN 85

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

C = Total ice concentration in the area in tenths
 C_1, C_2, C_3 = Concentration of thickest $1C_1$, 2nd thickest $1C_2$, and 3rd thickest $1C_3$ ice
 S_1, S_2, S_3 = Stage of development of thickest $1S_1$, 2nd thickest $1S_2$, and 3rd thickest $1S_3$ ice
 $\sim C$ = Concentration of ice within areas of strips and patches

STAGES OF DEVELOPMENT - THICKNESS

- 1 = New ice 10-10 cm
- 2 = Young ice 10-30 cm
- 3 = First year 30-200 cm
- 4 = First year thin 30-70 cm
- 5 = First year medium 70-120 cm
- 6 = First year thick 120-200 cm
- 7 = Old ice survived at least one summer's melt

EXAMPLES

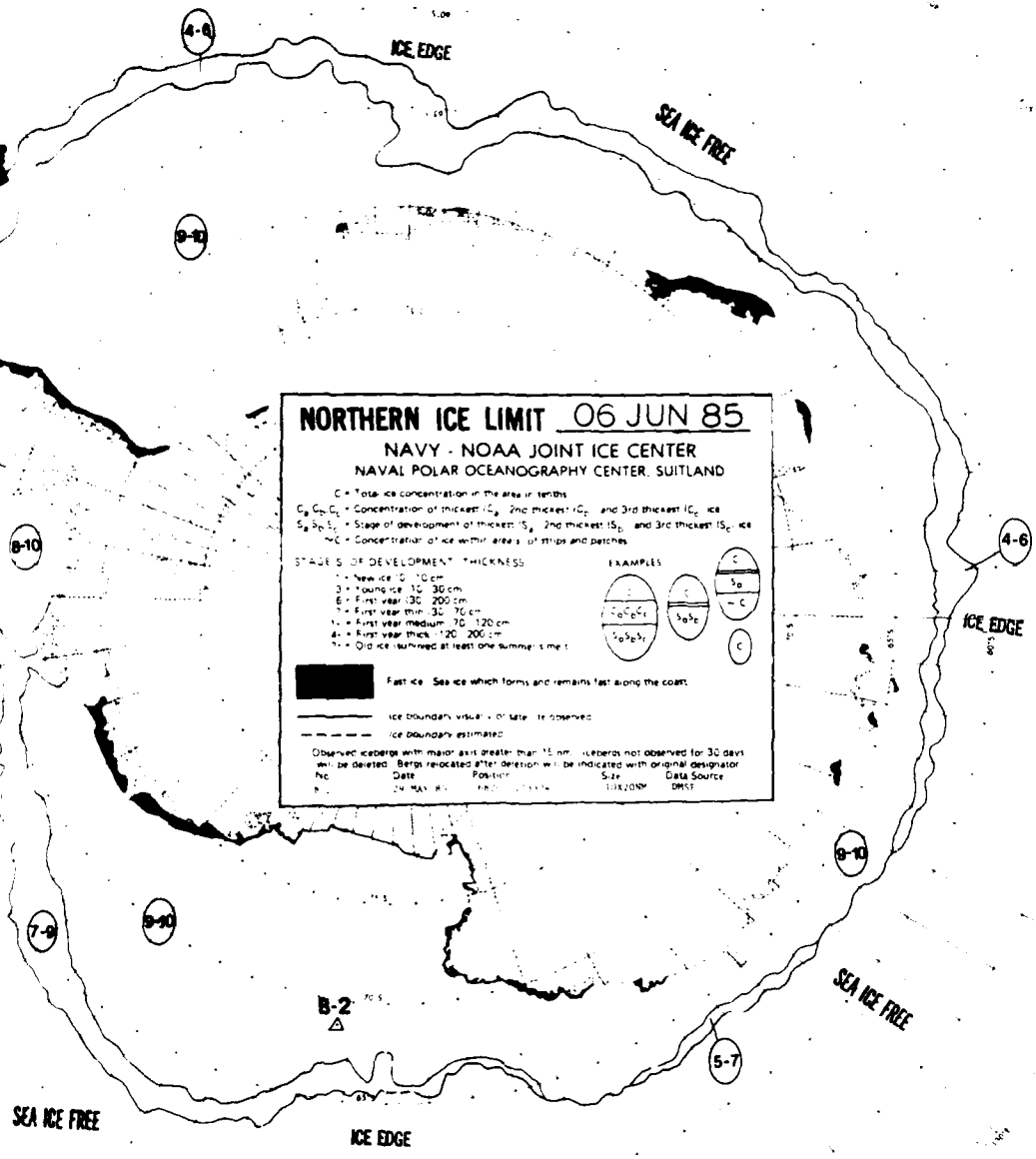
Fast ice - See ice which forms and remains fast along the coast

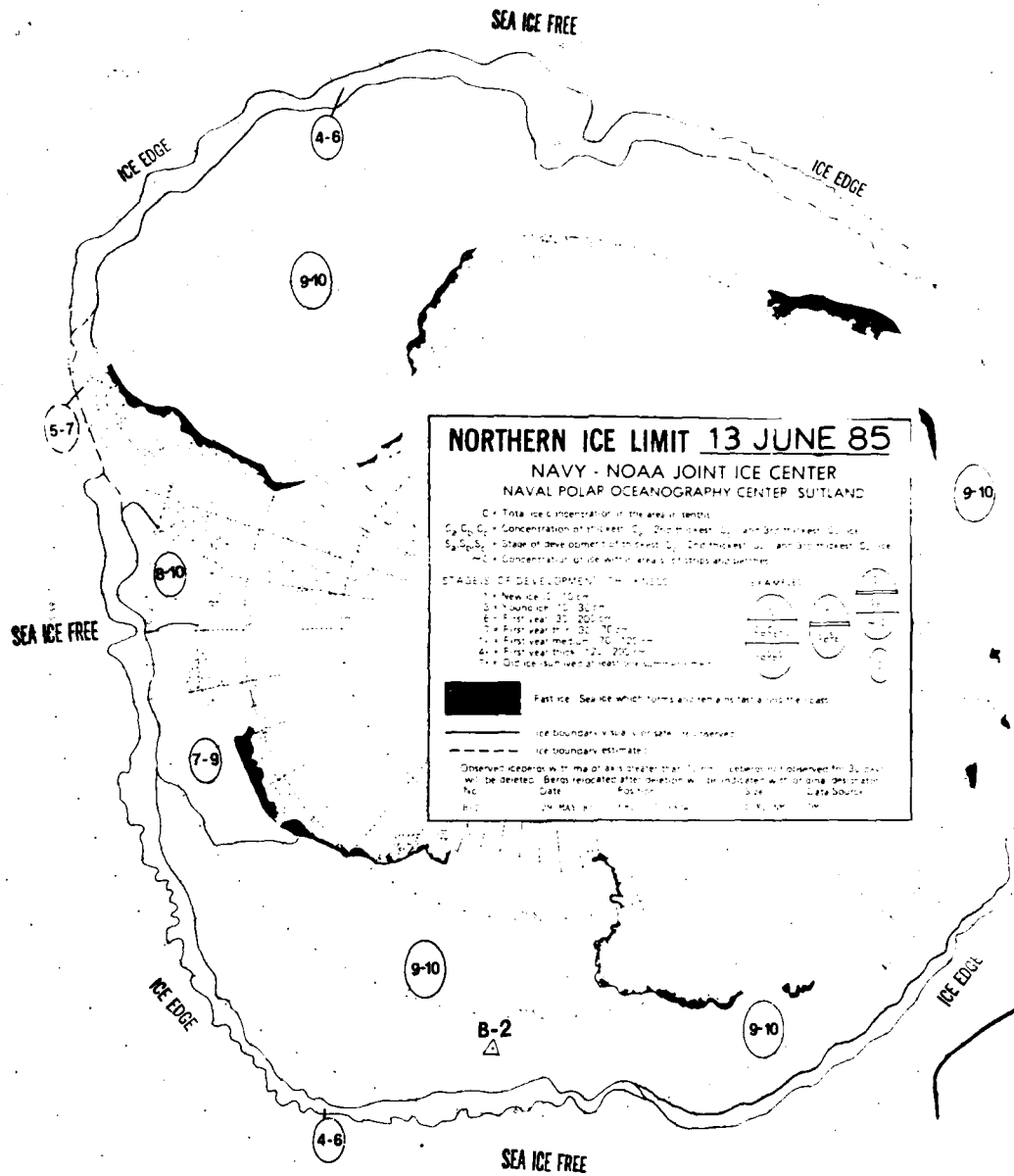
Ice boundary visible - or later - ice observed

Ice boundary estimated

Observed icebergs with major axis greater than 15 m - icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator

Ice	Date	Position	Size	Data Source
B-1	24 MAY 85	68° 10' N 158° 10' W	115/20NM	DMSP





SEA ICE FREE

ICE EDGE

4-6

9-10

ICE EDGE

9-10

SEA ICE FREE

5-7

ICE EDGE

8-2

9-10

SEA ICE FREE

4-8

ICE EDGE

NORTHERN ICE LIMIT 13 JUNE 85

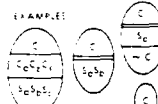
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
M = Concentration of ice within areas of strips and patches

STAGES OF DEVELOPMENT THICKNESS

- 1 = New ice (0-10 cm)
- 2 = First year (10-30 cm)
- 3 = First year (30-200 cm)
- 4 = First year (200-700 cm)
- 5 = First year (700-2000 cm)
- 6 = First year (2000-20000 cm)
- 7 = Old ice (survived at least one summer melt)

EXAMPLES



Fast ice: Sea ice which forms and remains fast along the coast

Ice boundary visible or satellite observed

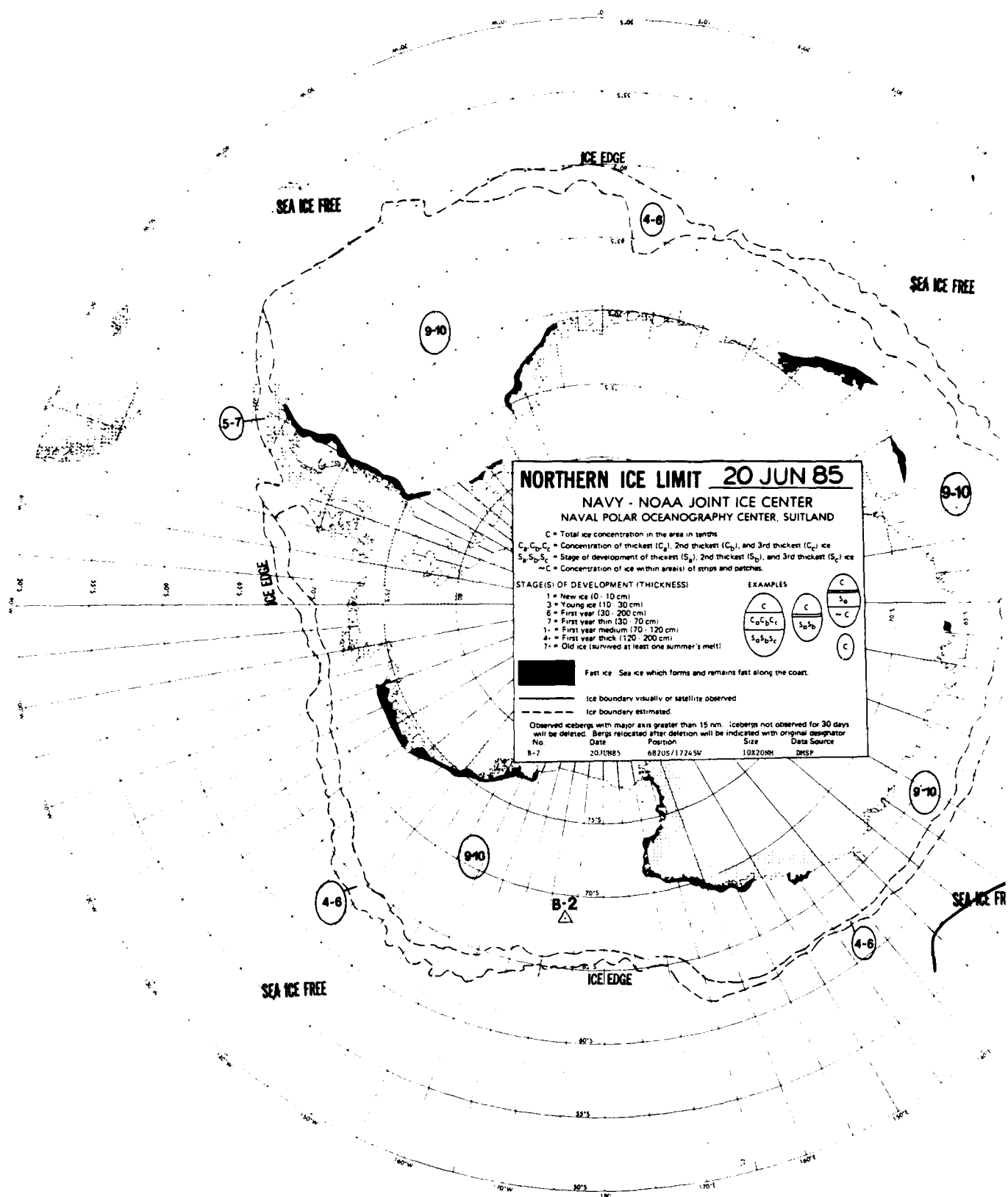
Ice boundary estimated

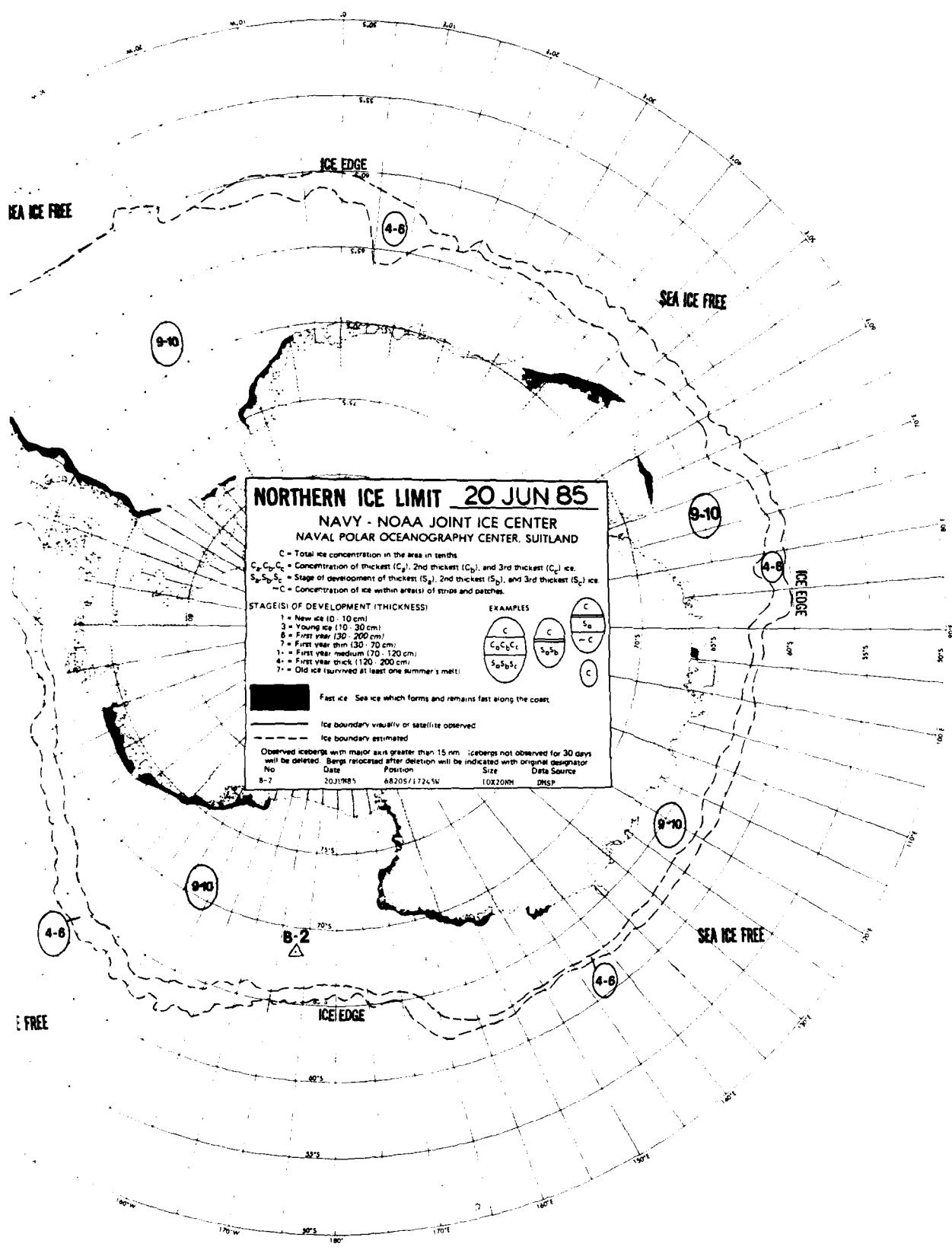
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days

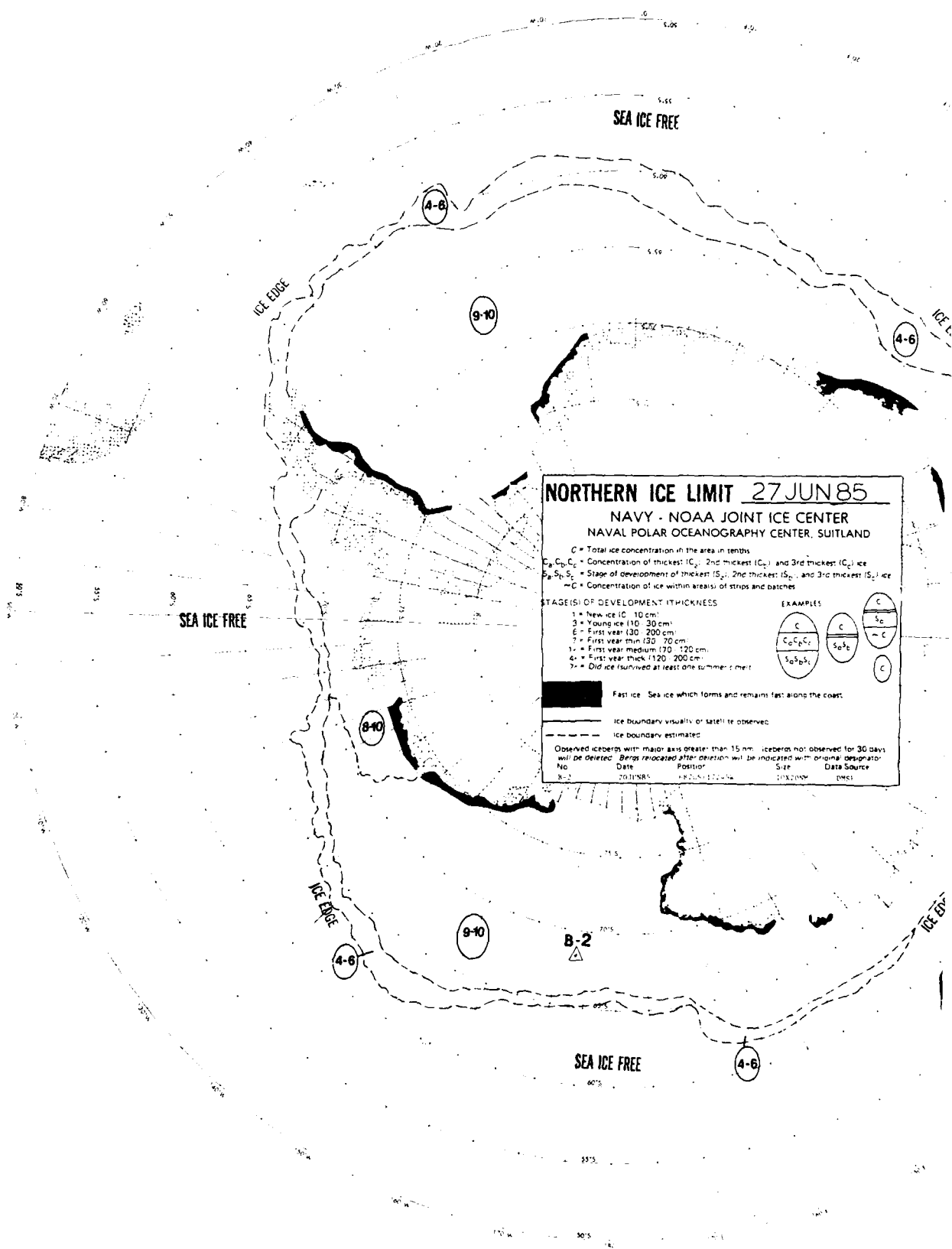
w. be deleted. Bergh relocated after deletion will be indicated with original designator

Date Position Size Date Source

13 JUN 85 142 112 111N 142 211W 1000







SEA ICE FREE

ICE EDGE

SEA ICE FREE

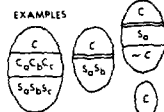
ICE EDGE

NORTHERN ICE LIMIT 27 JUN 85 NAVY - NOAA JOINT ICE CENTER NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within areas of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)
1 = New ice (0 - 10 cm)
3 = Young ice (10 - 30 cm)
6 = First year (30 - 200 cm)
7 = First year thin (30 - 70 cm)
1 = First year medium (70 - 120 cm)
4 = First year thick (120 - 200 cm)
7 = Old ice (survived at least one summer's melt)

EXAMPLES



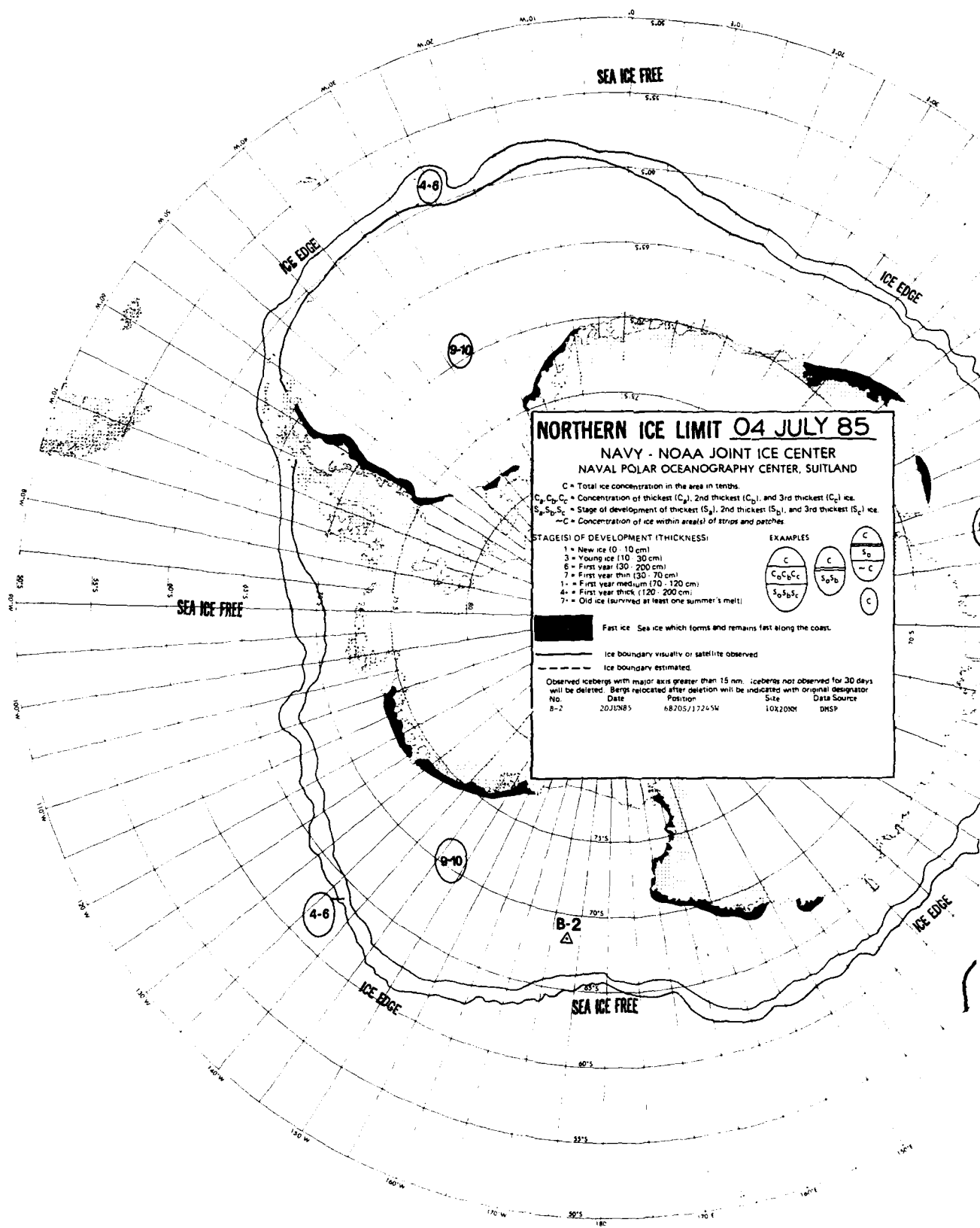
Fast ice Sea ice which forms and remains fast along the coast.
Ice boundary visually or satellite observed
Ice boundary estimated
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
B-2	20 JUN 85	68205/17245W	10X20NM	DMSP

B-2

SEA ICE FREE

ICE EDGE



NORTHERN ICE LIMIT 04 JULY 85
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 -C = Concentration of ice within areals of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year (30 - 200 cm)
- 4 = First year thin (30 - 70 cm)
- 5 = First year medium (70 - 120 cm)
- 6 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

$\frac{C}{C_1 C_2 C_3}$
 $\frac{S_1 S_2 S_3}{-C}$

$\frac{C}{S_1 S_2 S_3}$
 $\frac{C}{-C}$

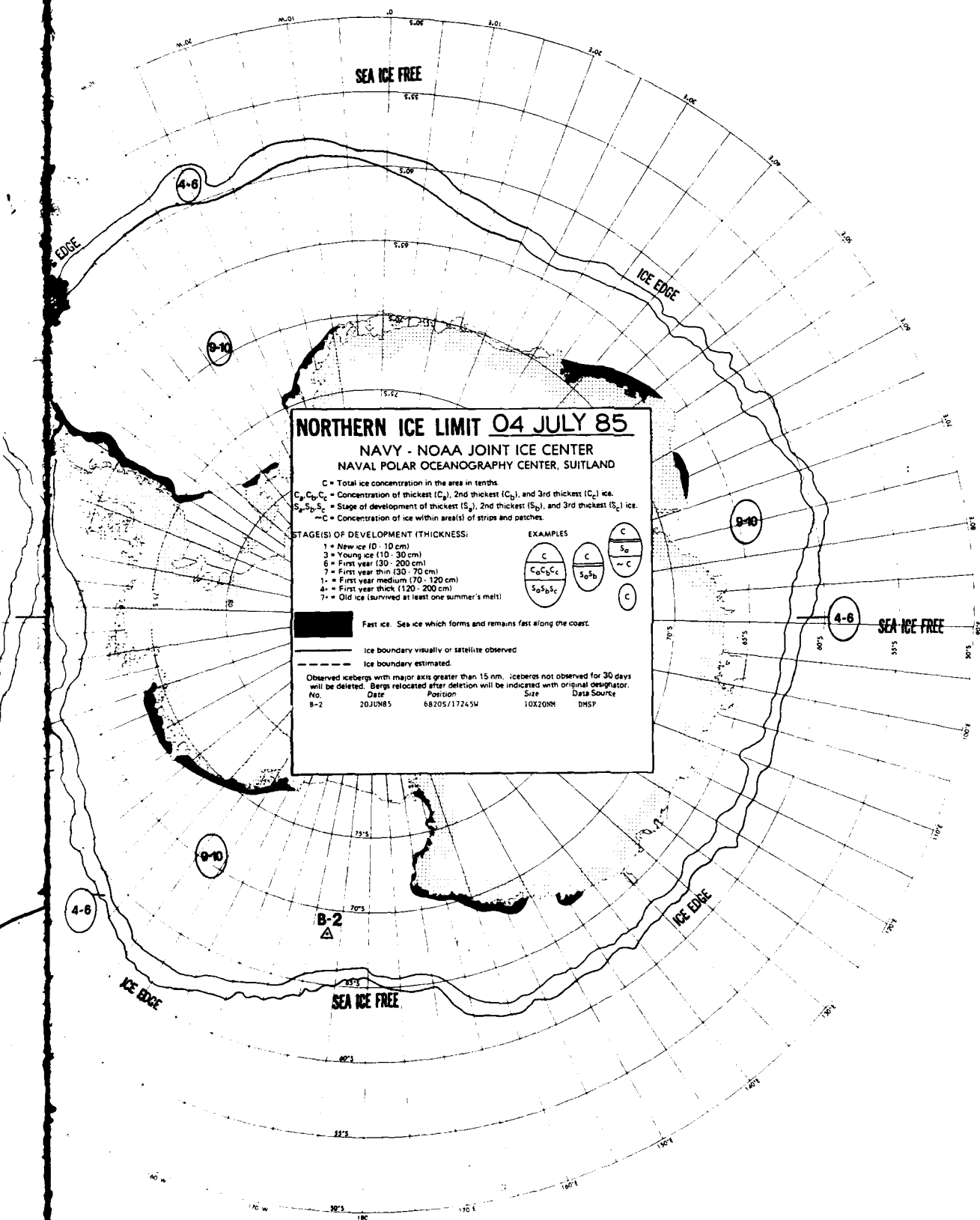
$\frac{C}{C}$

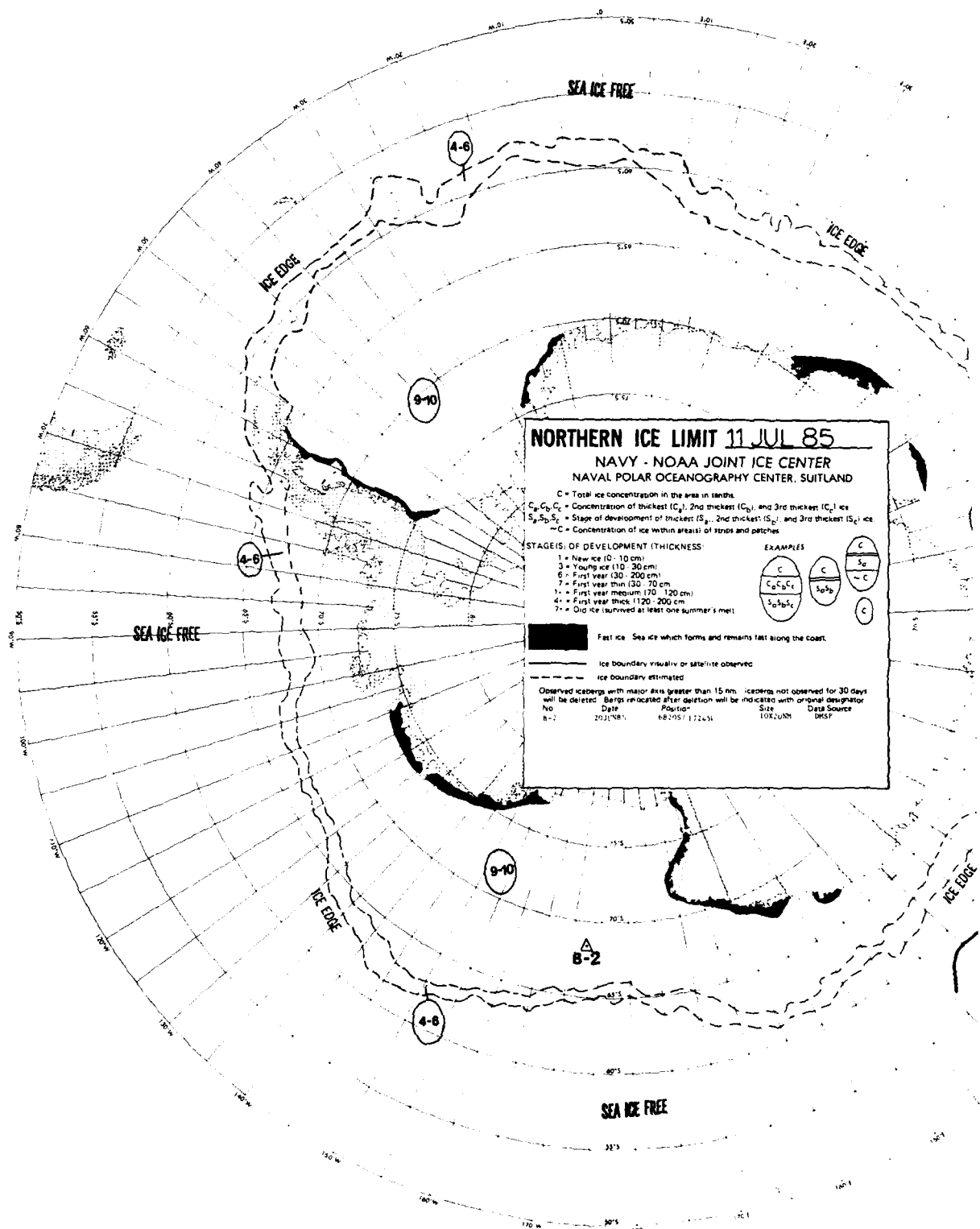
Fast ice = Sea ice which forms and remains fast along the coast.

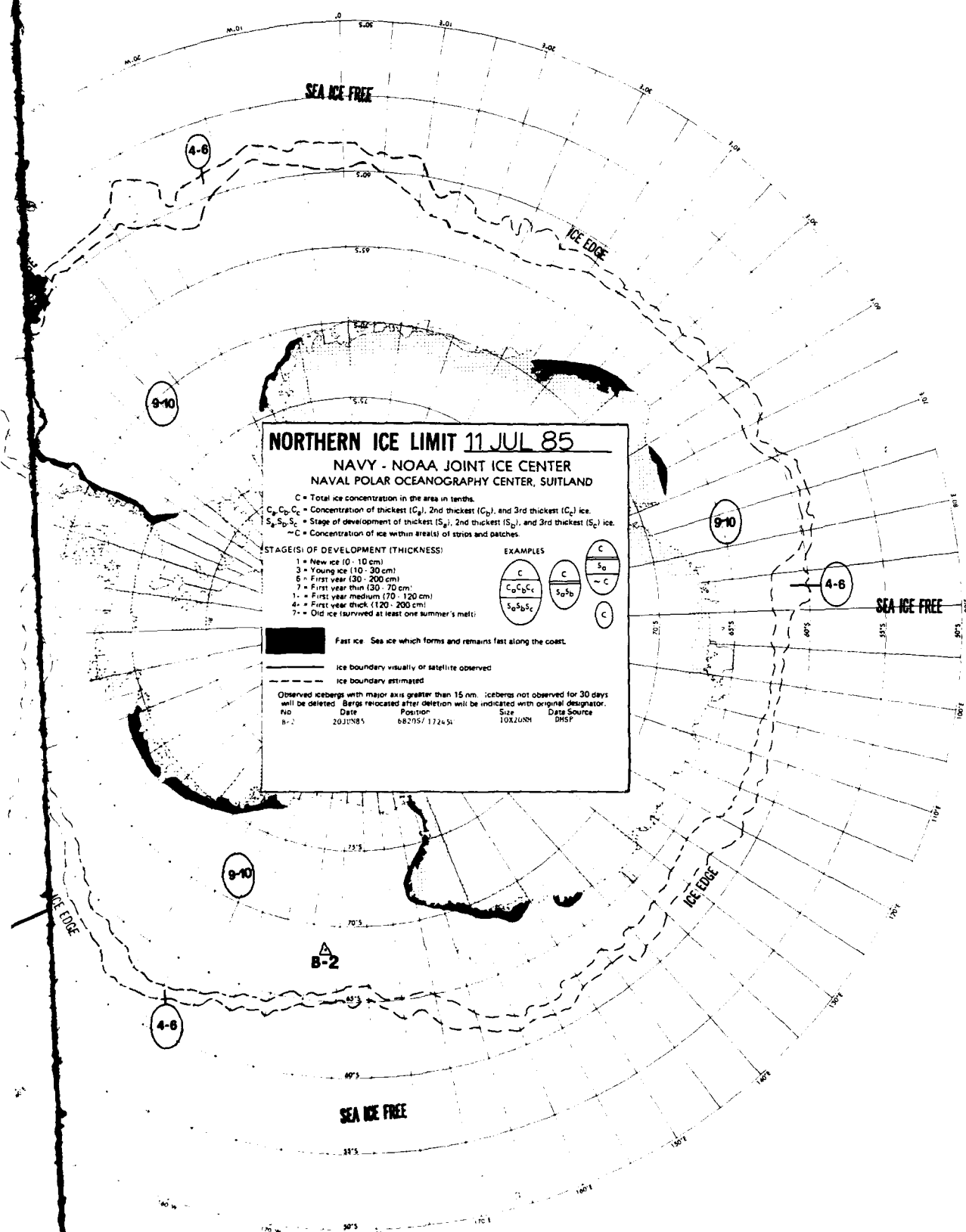
— Ice boundary visually or satellite observed
 --- Ice boundary estimated.

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 original designator.

No.	Date	Position	Size	Data Source
B-2	20 JUN 85	68.705/172.45W	10x20NM	DMSP







NORTHERN ICE LIMIT 11 JUL 85
 NAVY - NOAA JOINT ICE CENTER
 NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 ~C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (20 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

$\frac{C}{C_1 C_2 C_3}$
 $\frac{S_1 S_2 S_3}{S_1 S_2 S_3}$

$\frac{C}{S_1 S_2}$
 $\frac{C}{S_1 S_2}$

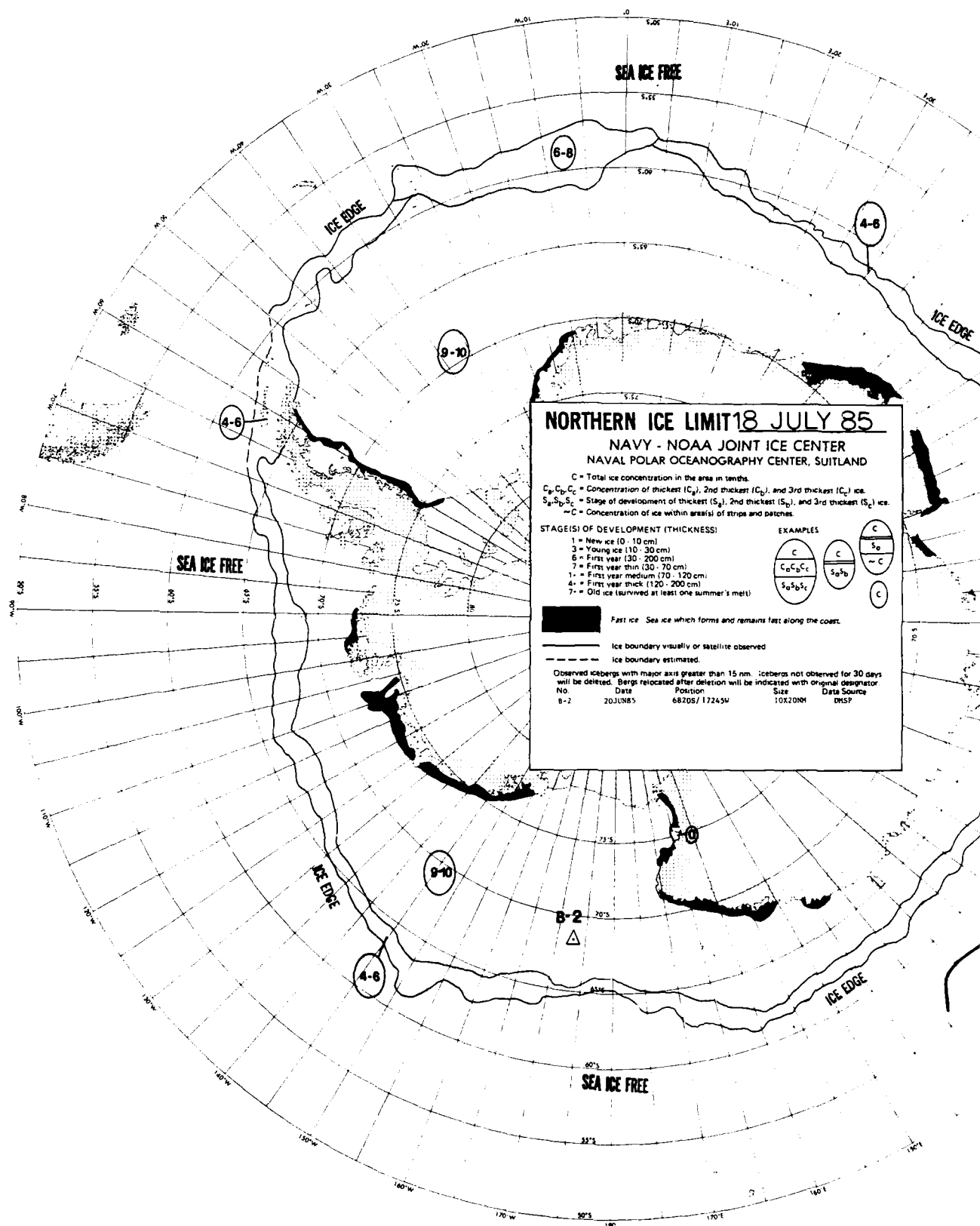
$\frac{C}{S_1}$
 $\frac{C}{S_1}$

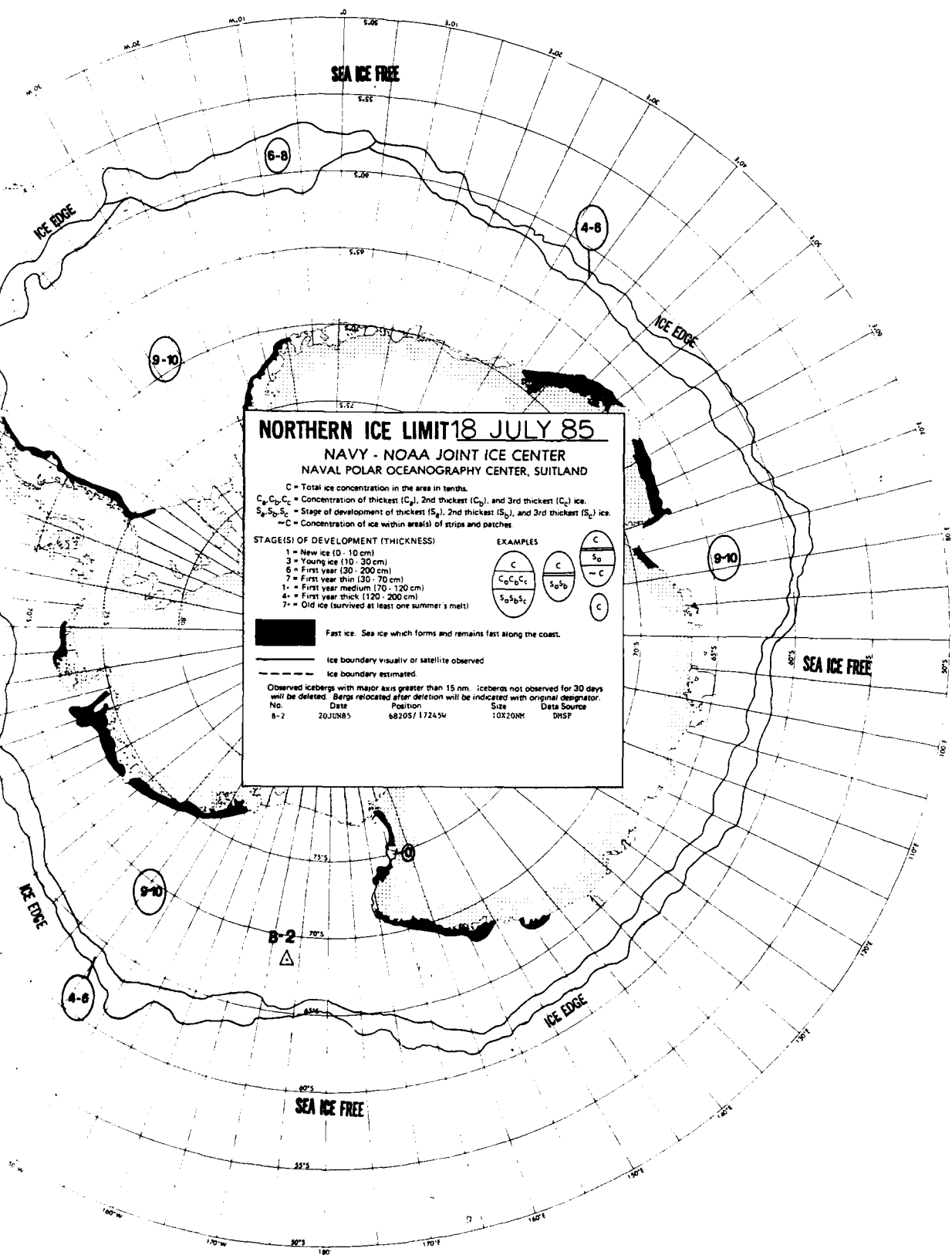
Fast ice Sea ice which forms and remains fast along the coast.

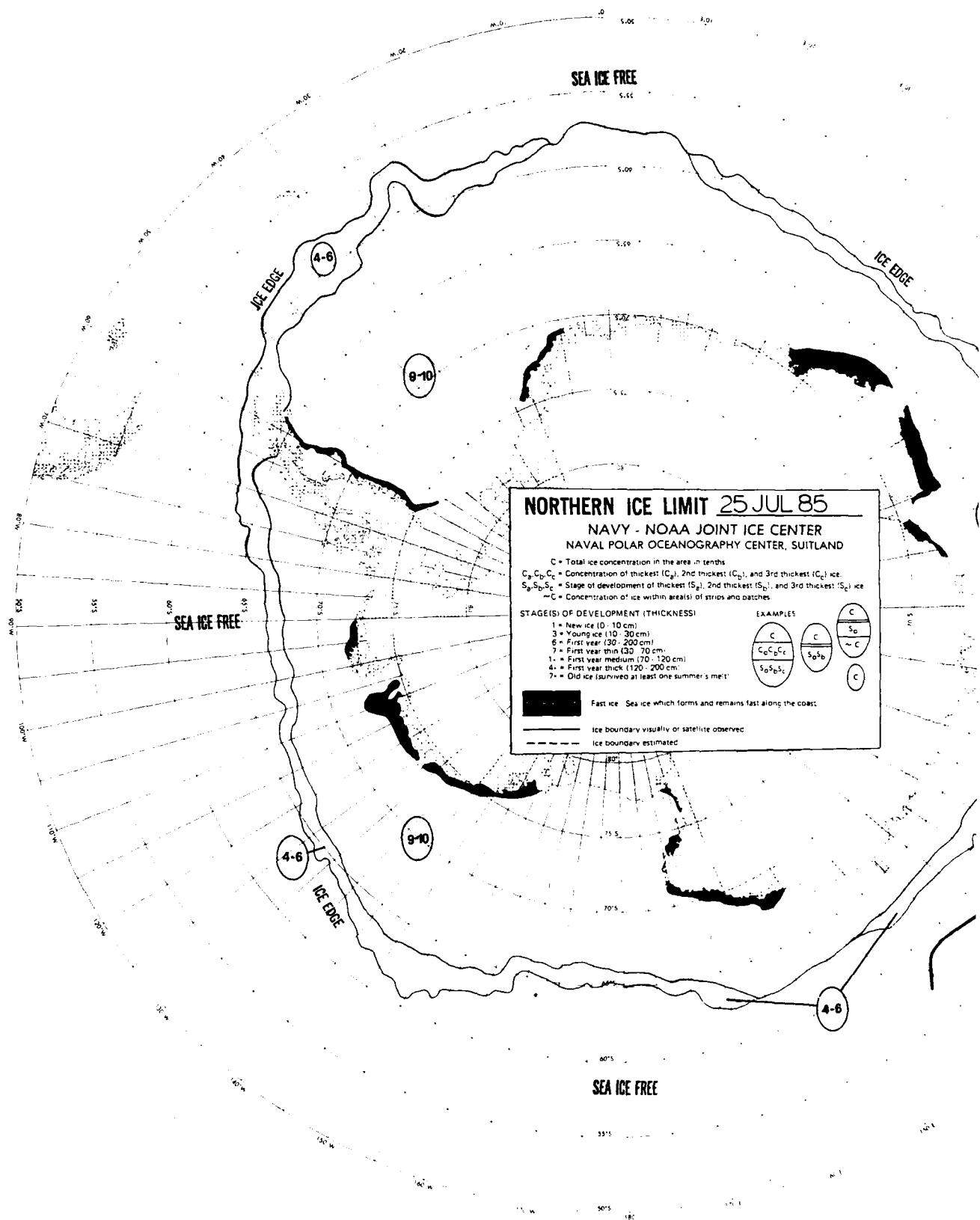
— Ice boundary visually or satellite observed
 --- Ice boundary estimated

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 original designator.

No.	Date	Position	Size	Data Source
87-2	20 JUN 85	68°05'N 172°45'W	108200m	DMSP







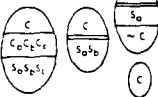
SEA ICE FREE

NORTHERN ICE LIMIT 25 JUL 85

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

- C = Total ice concentration in the area in tenths
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice
 C_1, S_1 = Concentration of ice within areals of strips and patches
- STAGE OF DEVELOPMENT (THICKNESS):
- 1 = New ice (10 - 10 cm)
 - 3 = Young ice (10 - 30 cm)
 - 6 = First year (30 - 200 cm)
 - 7 = First year thin (30 - 70 cm)
 - 1 = First year medium (70 - 120 cm)
 - 4 = First year thick (120 - 200 cm)
 - 7 = Old ice (survived at least one summer's melt)

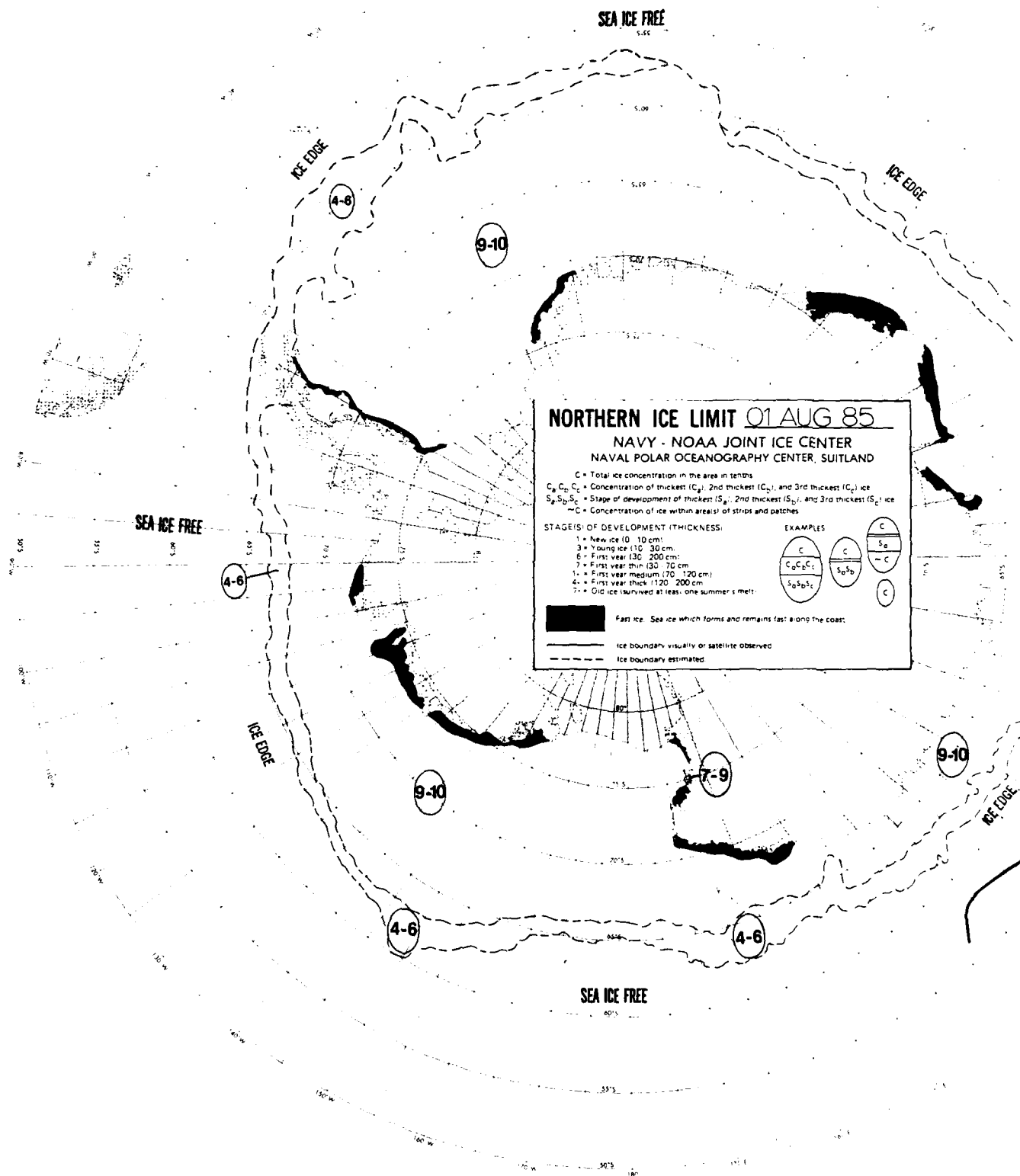
EXAMPLES



- Fast ice: Sea ice which forms and remains fast along the coast.
- Ice boundary visually or satellite observed
- Ice boundary estimated

SEA ICE FREE

SEA ICE FREE



SEA ICE FREE

ICE EDGE

ICE EDGE

SEA ICE FREE

NORTHERN ICE LIMIT 01 AUG 85

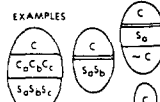
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
~C = Concentration of ice within areas of strips and patches

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7+ = Old ice (survived at least one summer's melt)

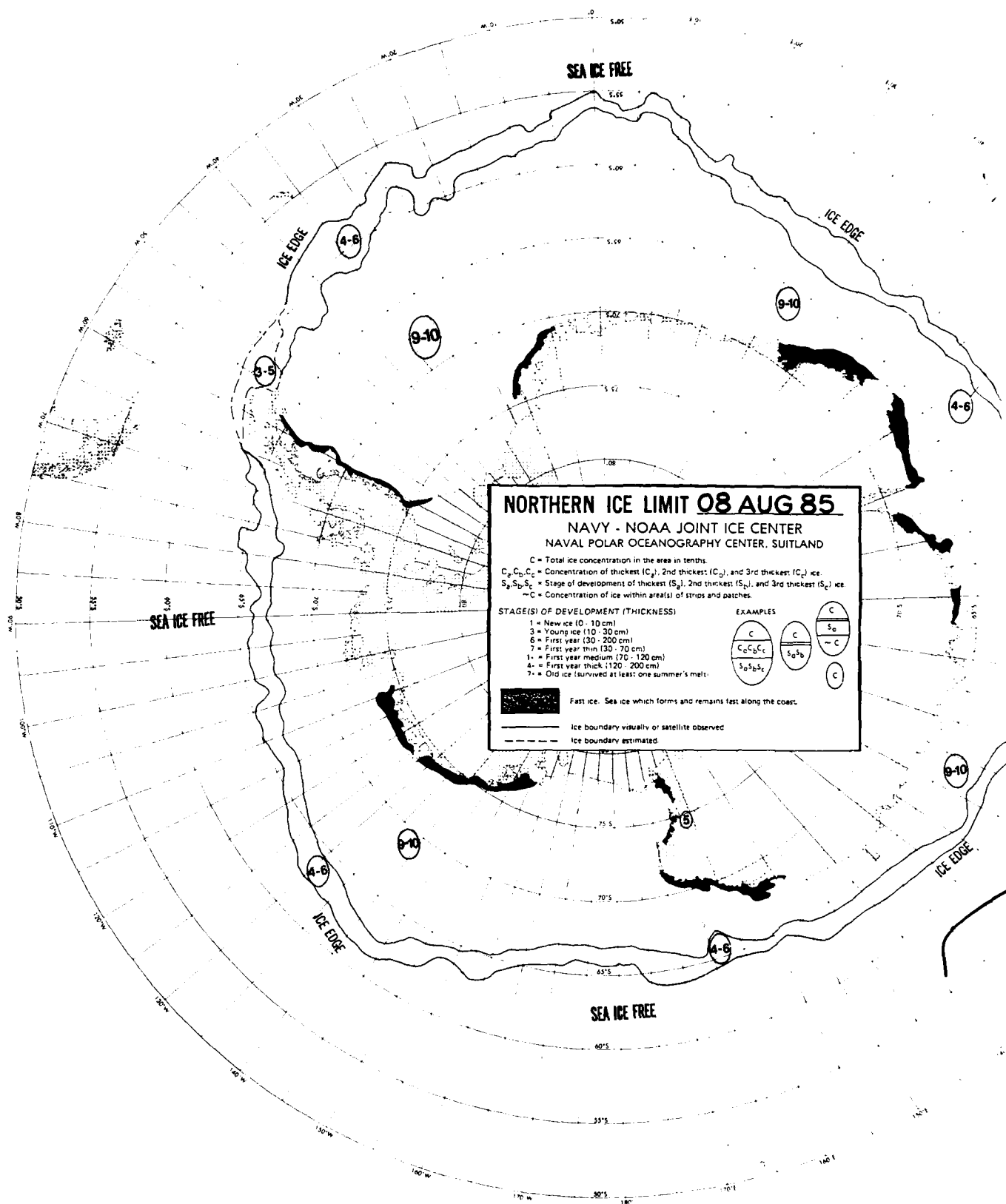
EXAMPLES

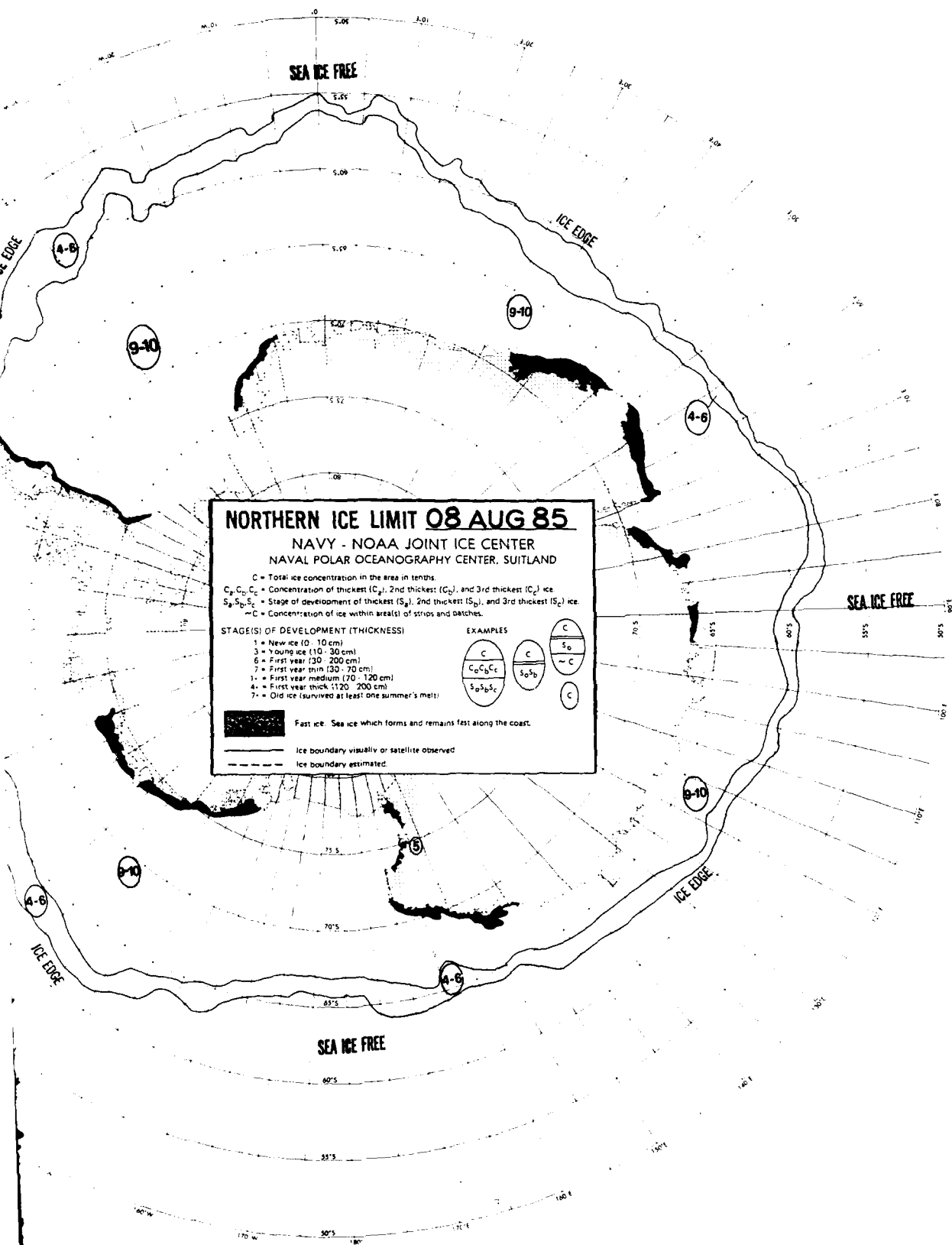


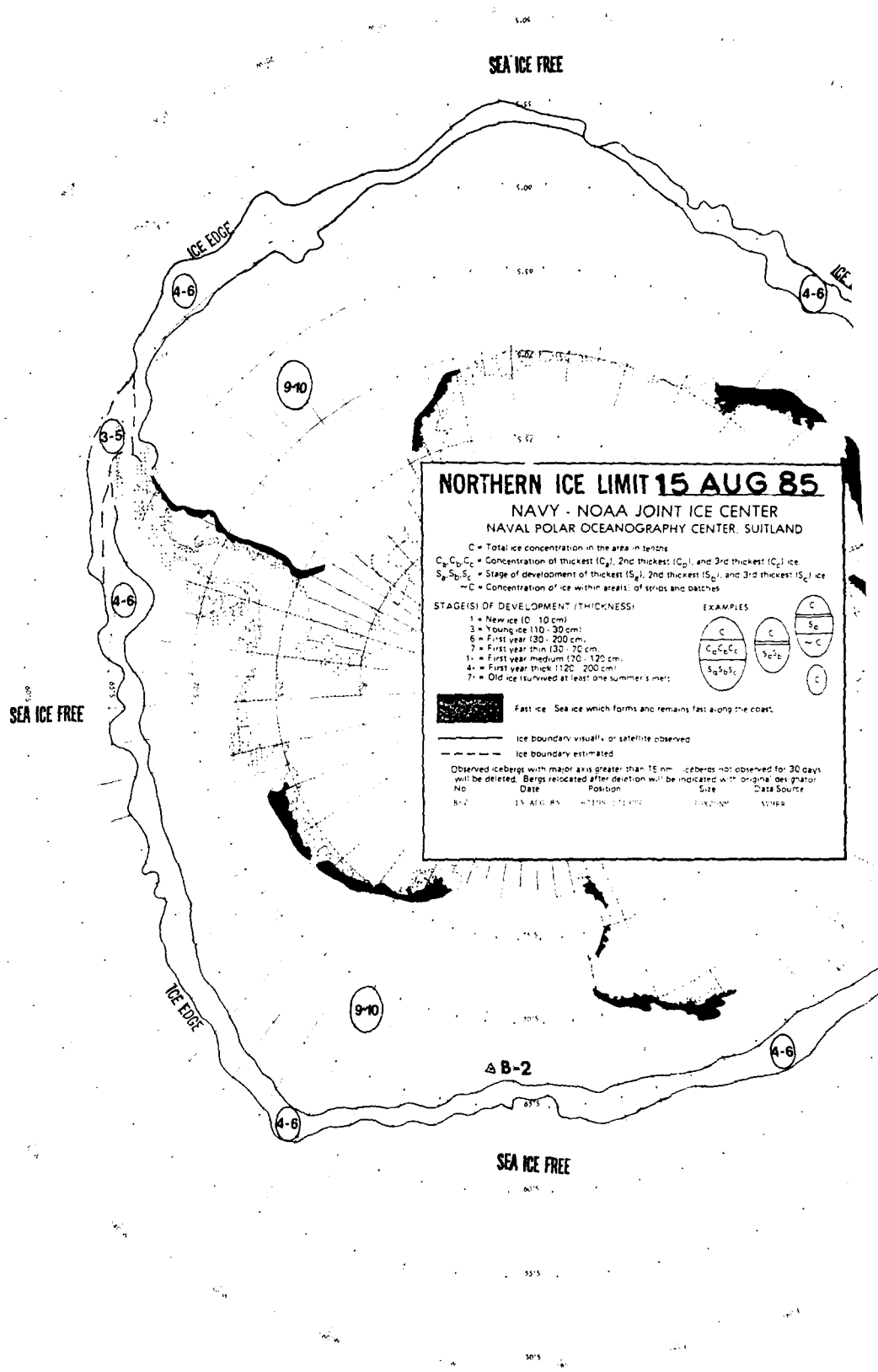
- Fast ice - Sea ice which forms and remains fast along the coast.
- Ice boundary visually or satellite observed
- Ice boundary estimated

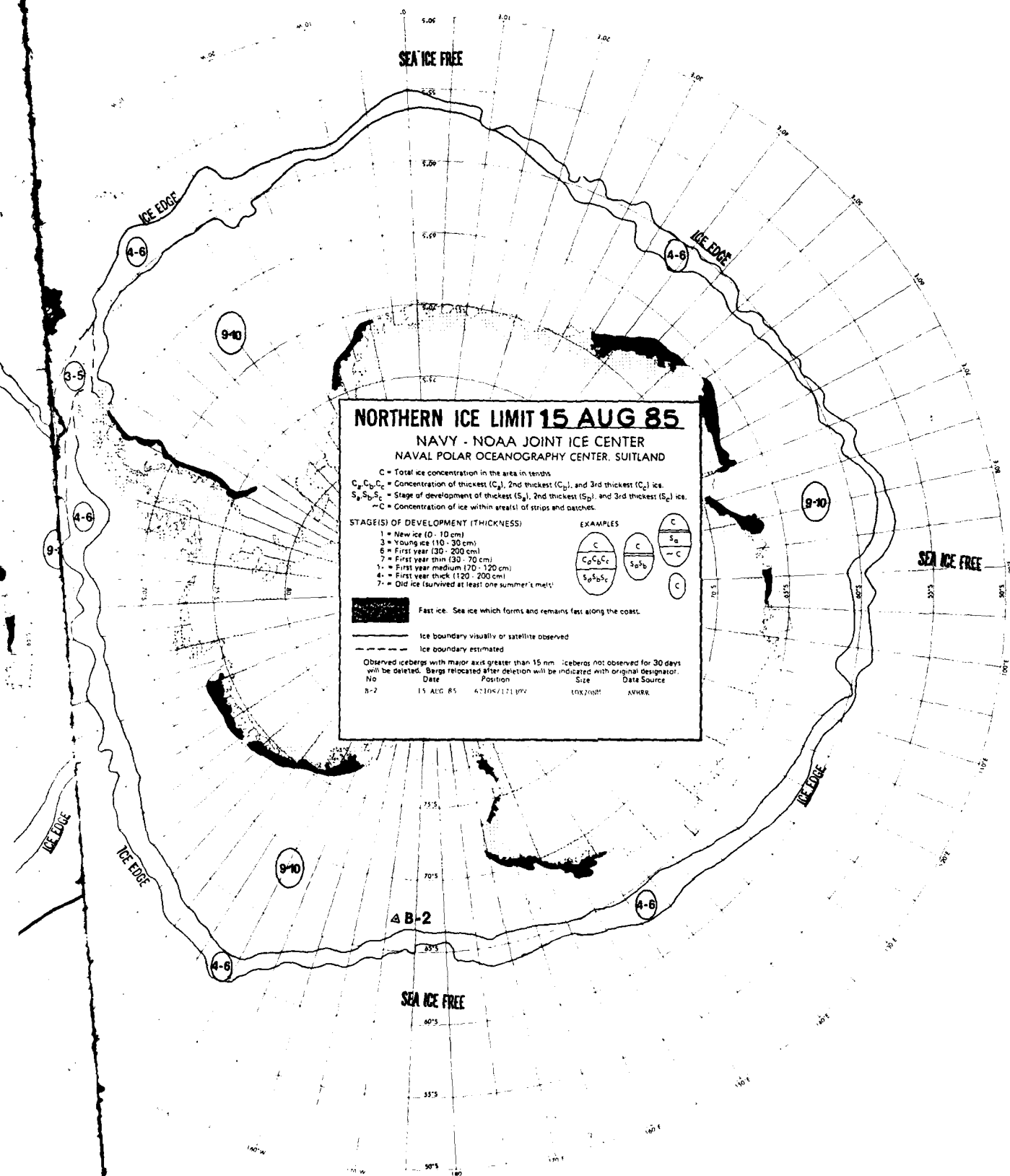
SEA ICE FREE

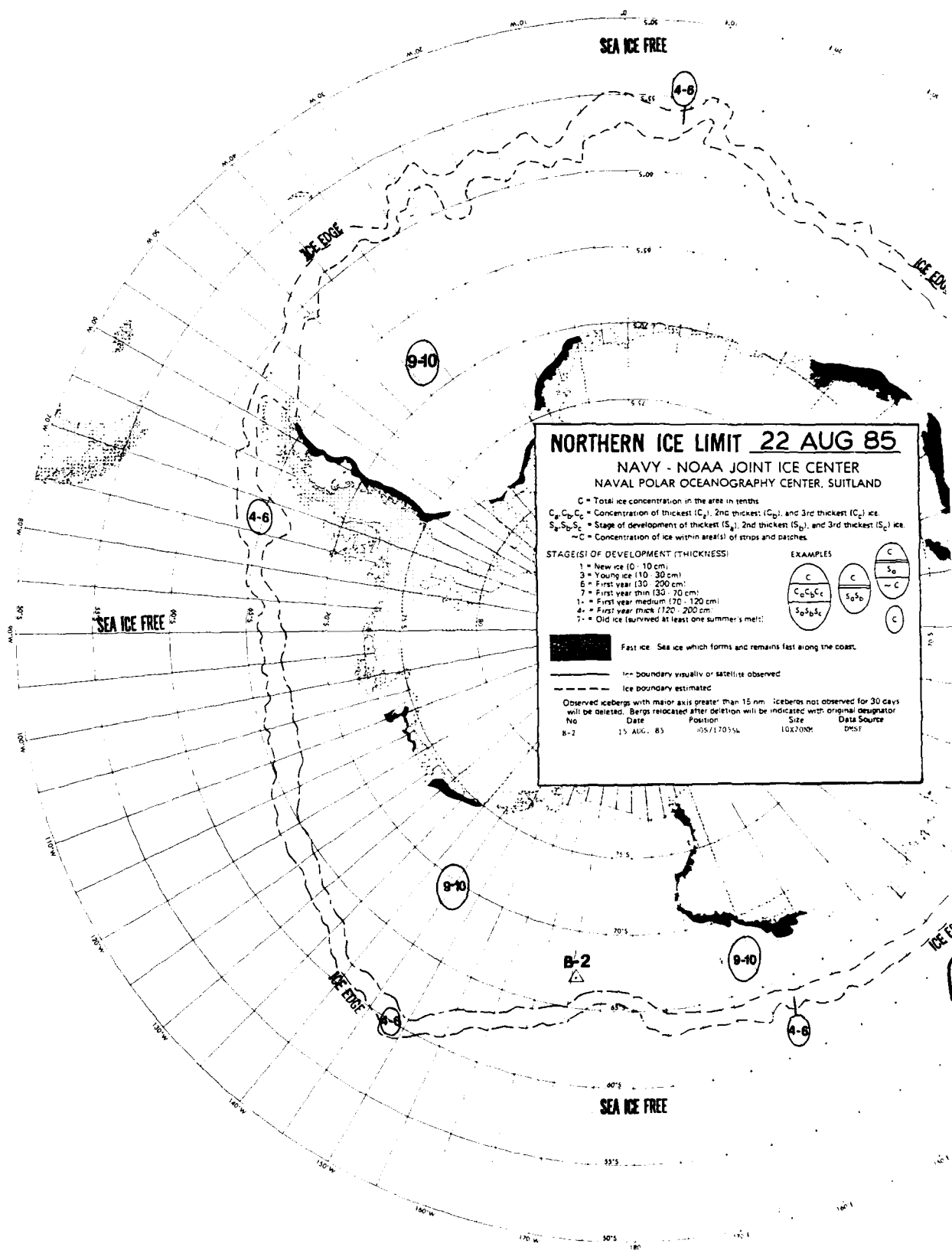
ICE EDGE











SEA ICE FREE

4-6

ICE EDGE

9-10

ICE EDGE

4-6

9-10

SEA ICE FREE

NORTHERN ICE LIMIT 22 AUG 85

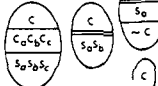
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
~C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice: See 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 original designator.

No.	Date	Position	Size	Data Source
B-2	15 AUG. 85	67005/17055N	10X70NM	DMSP

9-10

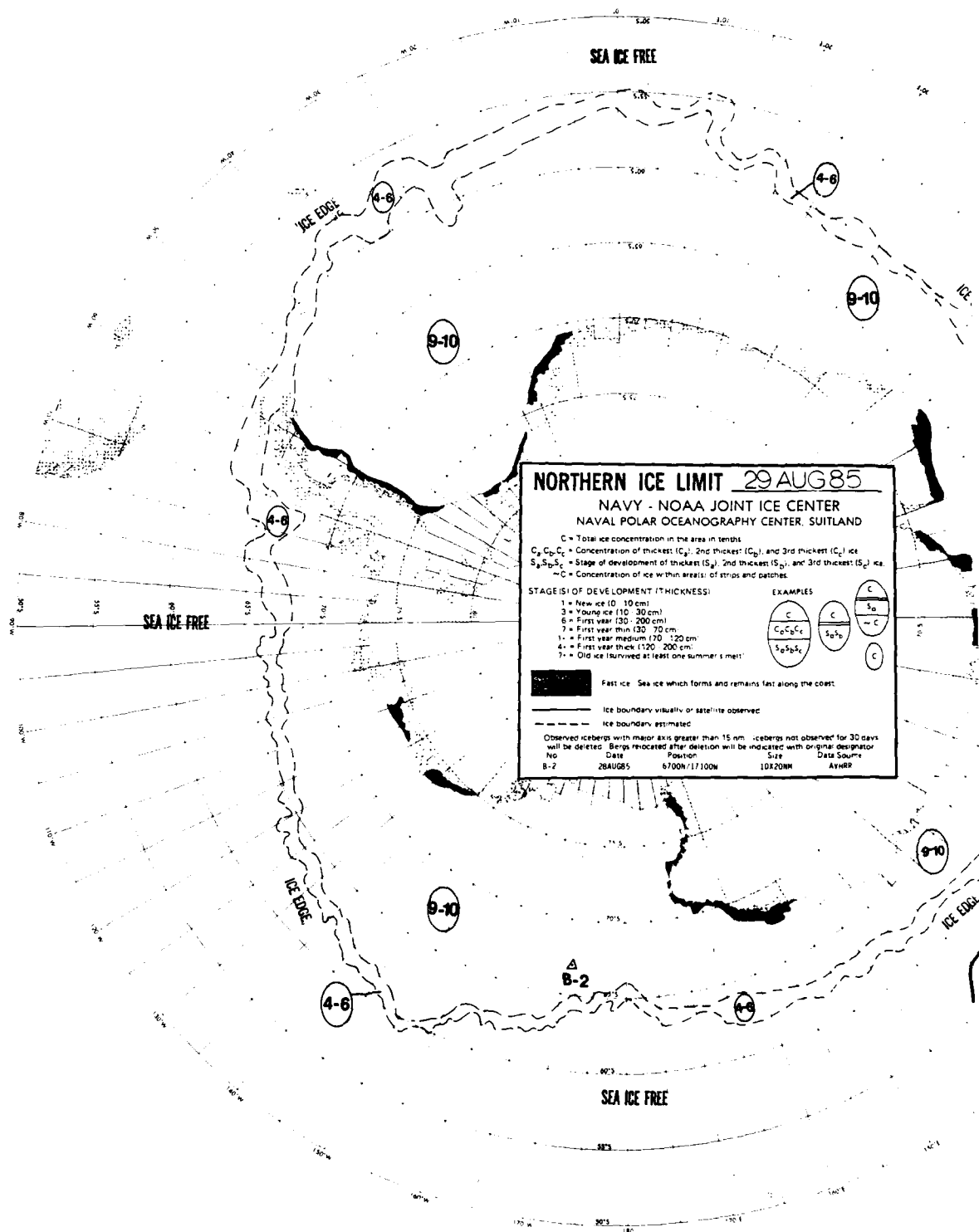
B-2

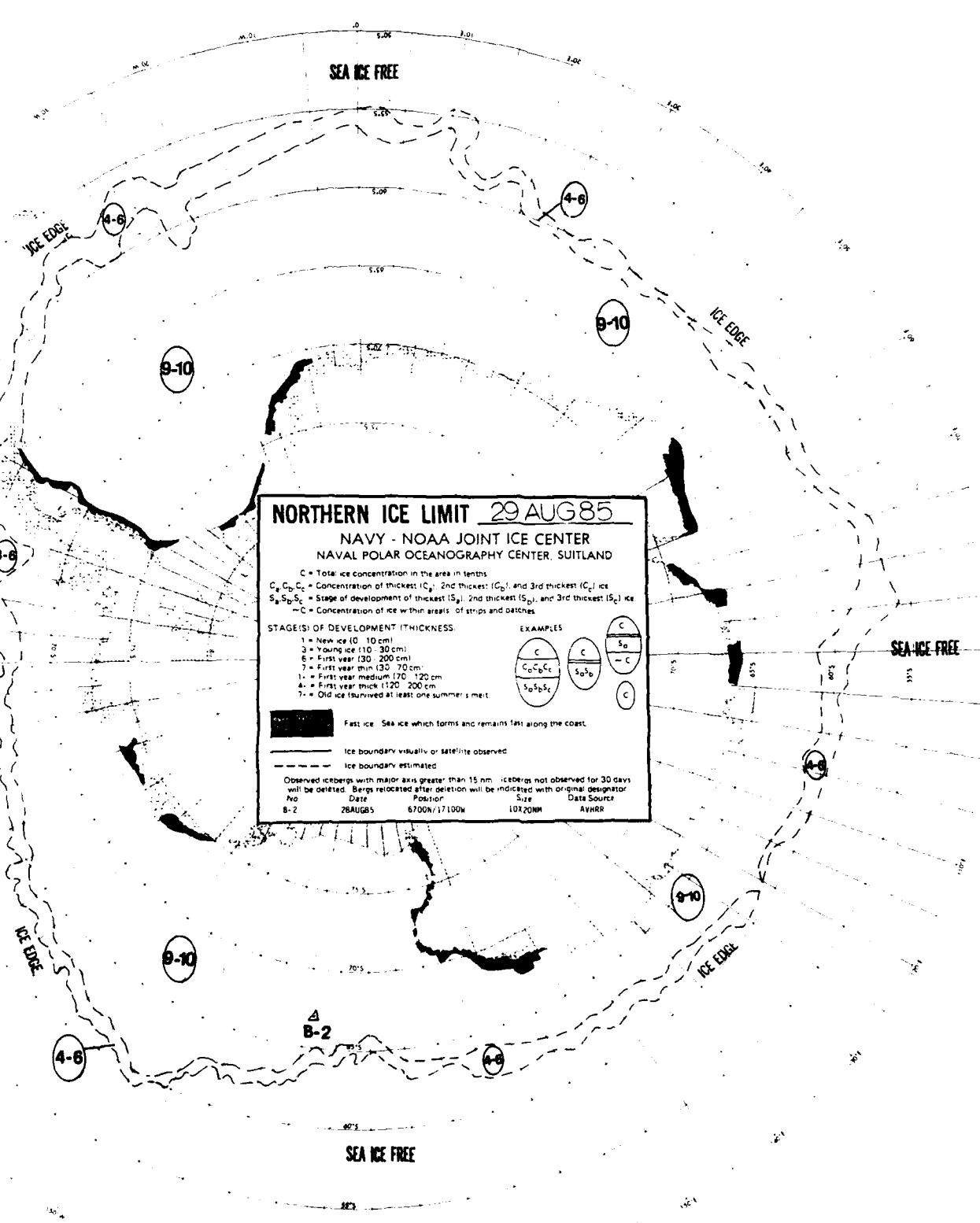
9-10

4-6

ICE EDGE

SEA ICE FREE





NORTHERN ICE LIMIT 29 AUG 85
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice
 $-C$ = Concentration of ice within areas of strips and patches

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year thin (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

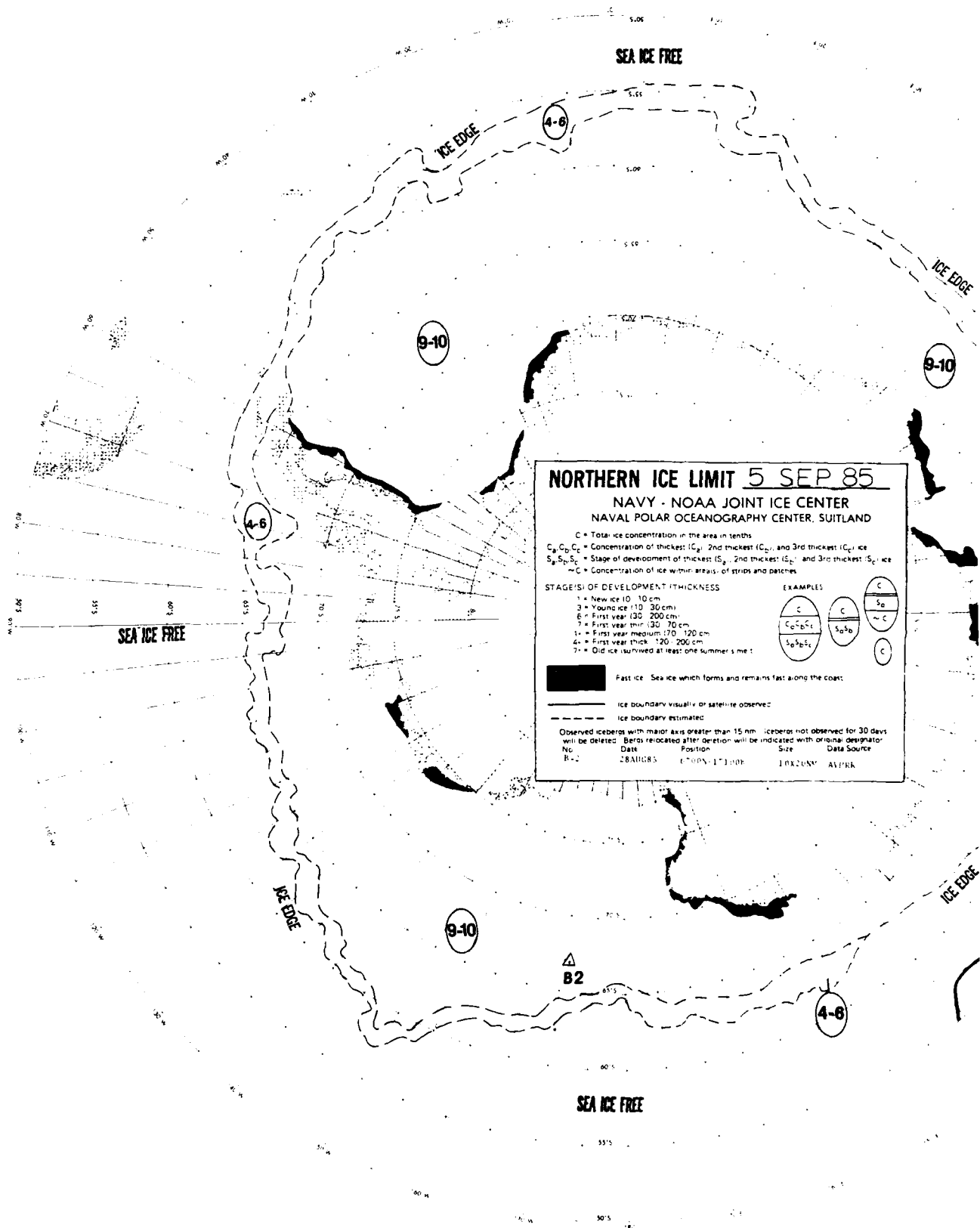
EXAMPLES

$\frac{C}{C_1 C_2 C_3}$	$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{-C}$
-------------------------	-------------------------	----------------

Fast 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 original designator.

No.	Date	Position	Size	Data Source
B-2	28 AUG 85	6700N/17100W	10X20NM	AVHRR



NORTHERN ICE LIMIT 5 SEP 85

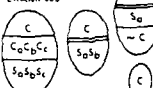
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
-C = Concentration of ice within areas of strips and patches

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Did ice survive at least one summer's melt

EXAMPLES



Fast 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 original designator.

No. Date Position Size Data Source

B-2 28 AUG 85 67°00N/171°00W 10X20NM AVT/RK

B2

SEA ICE FREE

SEA ICE FREE

ICE EDGE

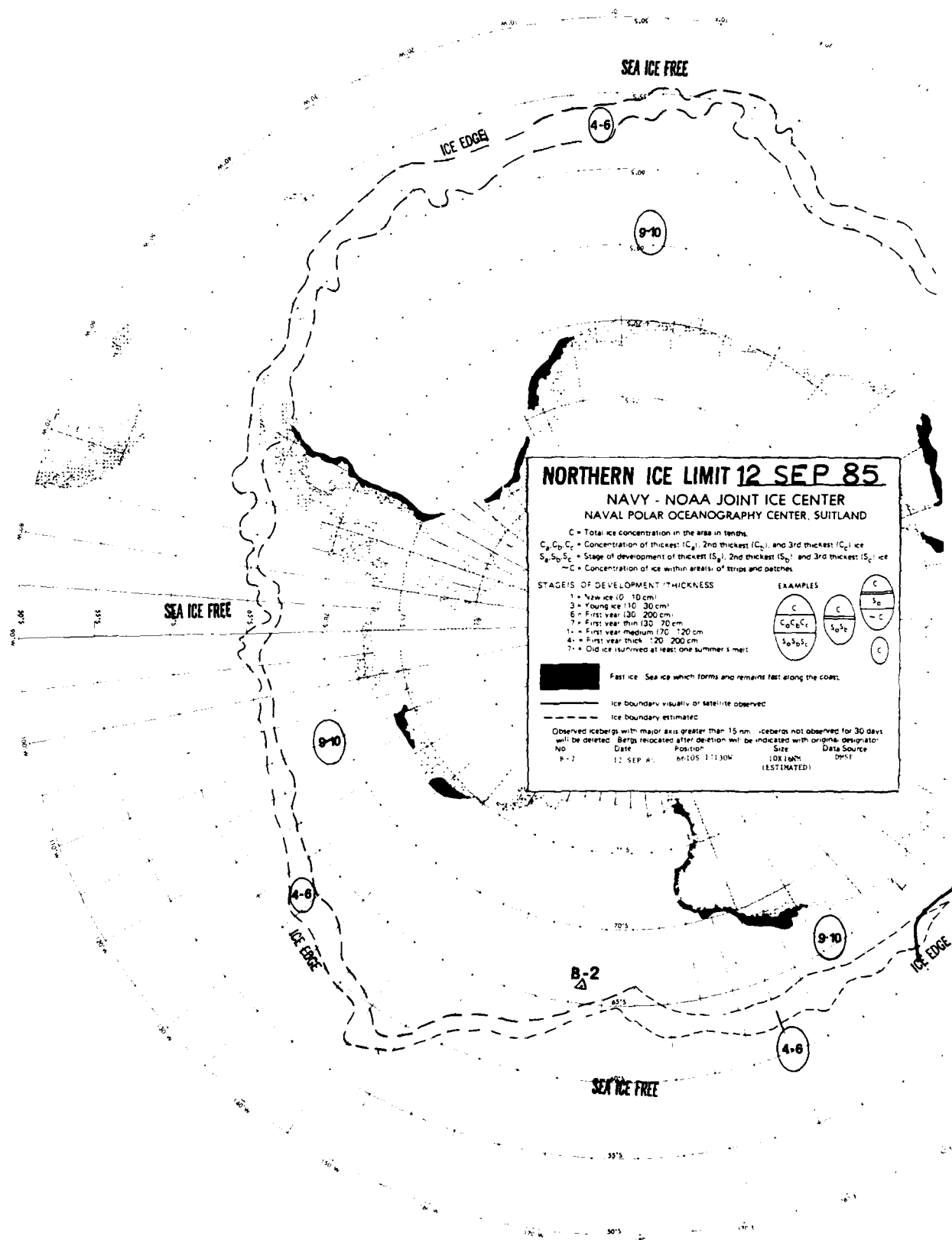
9-10

9-10

4-6

4-6

ICE EDGE



SEA ICE FREE

ICE EDGE

4-6

9-10

ICE EDGE

9-10

SEA ICE FREE

NORTHERN ICE LIMIT 12 SEP 85

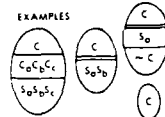
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂) and 3rd thickest (C₃) ice
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂) and 3rd thickest (S₃) ice
-C = Concentration of ice within areas of strips and patches

STAGES OF DEVELOPMENT - THICKNESS

- 1 = New ice 10 - 30 cm
- 3 = Young ice 30 - 70 cm
- 6 = First year thin (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 9 = First year medium (70 - 200 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice survived at least one summer's melt

EXAMPLES



Fast 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 original designator.

No.	Date	Position	Size	Data Source
B-2	12 SEP 85	60°05' 171°30'	10X16NM (ESTIMATED)	DMSP

B-2

4-6

SEA ICE FREE

ICE EDGE

4-6

ICE EDGE

9-10

4-6

SEA ICE FREE

SEA ICE FREE

ICE EDGE

ICE EDGE

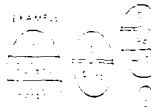
NORTHERN ICE LIMIT 19 SEPT 85

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

1. Total ice concentration in the area is zero.
2. 0-49% Concentration of thickness 0-100 cm (0-100 cm) (0-100 cm) (0-100 cm)
3. 50-99% Stage of development of thickness 0-100 cm (0-100 cm) (0-100 cm) (0-100 cm)
4. 100% Concentration of thickness 0-100 cm (0-100 cm) (0-100 cm) (0-100 cm)

STAGE OF DEVELOPMENT THICKNESS

- 1. New ice 0-10 cm
- 2. Young ice 10-30 cm
- 3. First year 30-100 cm
- 4. First year 100-150 cm
- 5. First year 150-200 cm
- 6. First year 200-250 cm
- 7. Old ice 250 cm and over (summer melt)



NOTES:
Fast ice: Sea ice which forms and remains in the same place.
Ice boundaries: Area of ice in contact with open water.
Ice boundaries: estimated.
Concentrations with the prefix "estimated" will be shown in parentheses () and will be printed. Percentages after the prefix will be shown with original data.
No. Date Position Date Date Source
No. Date Position Date Date Source

ICE EDGE

ICE ET

B-2

SEA ICE FREE

2-4

9-10

4-6

9-10

9-10

4-6

4-6

9-10

SEA ICE FREE

4-6

ICE EDGE

9-10

9-10

ICE EDGE

NORTHERN ICE LIMIT 19 SEPT 85

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

- C = Total ice concentration in the area in tenths
 - C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
 - S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
 - ~C = Concentration of ice within areas of strips and patches
- STAGES OF DEVELOPMENT BY THICKNESS
- 1 = New ice (0-10 cm)
 - 2 = Young ice (10-30 cm)
 - 3 = First year (30-200 cm)
 - 4 = First year thin (30-90 cm)
 - 5 = First year medium (90-120 cm)
 - 6 = First year thick (120-200 cm)
 - 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast 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 km (dependent on observation for 30 days) will be deleted. Bergs relocated after deletion will be indicated with original designation.

No.	Date	Position	Size	Data Source
100	10/1/85	66°15'N 150°15'W	1000m	NOAA
101	10/2/85	66°15'N 150°15'W	1000m	NOAA
102	10/3/85	66°15'N 150°15'W	1000m	NOAA
103	10/4/85	66°15'N 150°15'W	1000m	NOAA
104	10/5/85	66°15'N 150°15'W	1000m	NOAA
105	10/6/85	66°15'N 150°15'W	1000m	NOAA
106	10/7/85	66°15'N 150°15'W	1000m	NOAA
107	10/8/85	66°15'N 150°15'W	1000m	NOAA
108	10/9/85	66°15'N 150°15'W	1000m	NOAA
109	10/10/85	66°15'N 150°15'W	1000m	NOAA
110	10/11/85	66°15'N 150°15'W	1000m	NOAA
111	10/12/85	66°15'N 150°15'W	1000m	NOAA
112	10/13/85	66°15'N 150°15'W	1000m	NOAA
113	10/14/85	66°15'N 150°15'W	1000m	NOAA
114	10/15/85	66°15'N 150°15'W	1000m	NOAA
115	10/16/85	66°15'N 150°15'W	1000m	NOAA
116	10/17/85	66°15'N 150°15'W	1000m	NOAA
117	10/18/85	66°15'N 150°15'W	1000m	NOAA
118	10/19/85	66°15'N 150°15'W	1000m	NOAA
119	10/20/85	66°15'N 150°15'W	1000m	NOAA
120	10/21/85	66°15'N 150°15'W	1000m	NOAA
121	10/22/85	66°15'N 150°15'W	1000m	NOAA
122	10/23/85	66°15'N 150°15'W	1000m	NOAA
123	10/24/85	66°15'N 150°15'W	1000m	NOAA
124	10/25/85	66°15'N 150°15'W	1000m	NOAA
125	10/26/85	66°15'N 150°15'W	1000m	NOAA
126	10/27/85	66°15'N 150°15'W	1000m	NOAA
127	10/28/85	66°15'N 150°15'W	1000m	NOAA
128	10/29/85	66°15'N 150°15'W	1000m	NOAA
129	10/30/85	66°15'N 150°15'W	1000m	NOAA
130	10/31/85	66°15'N 150°15'W	1000m	NOAA

SEA ICE FREE

4-6

9-10

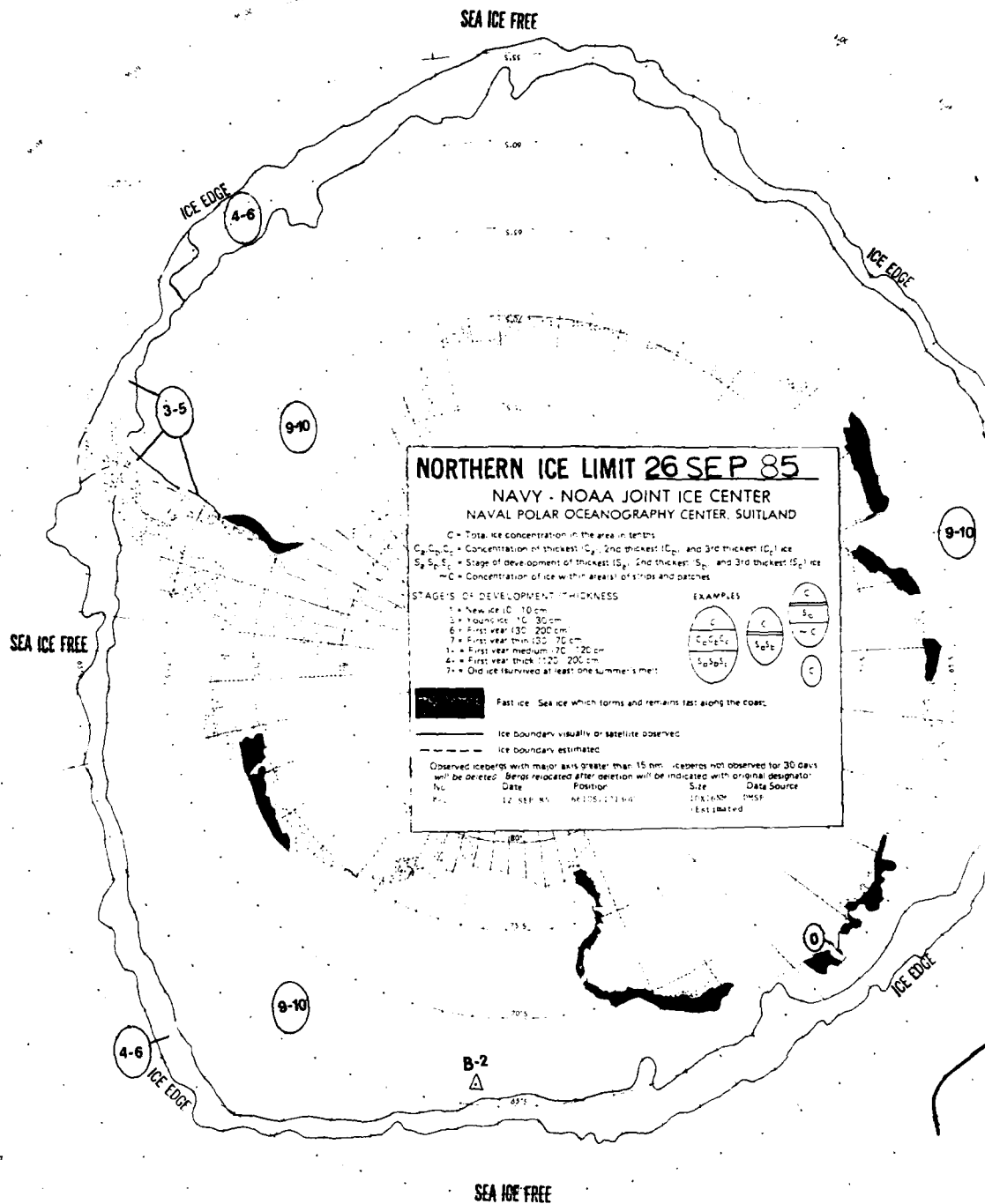
ICE EDGE

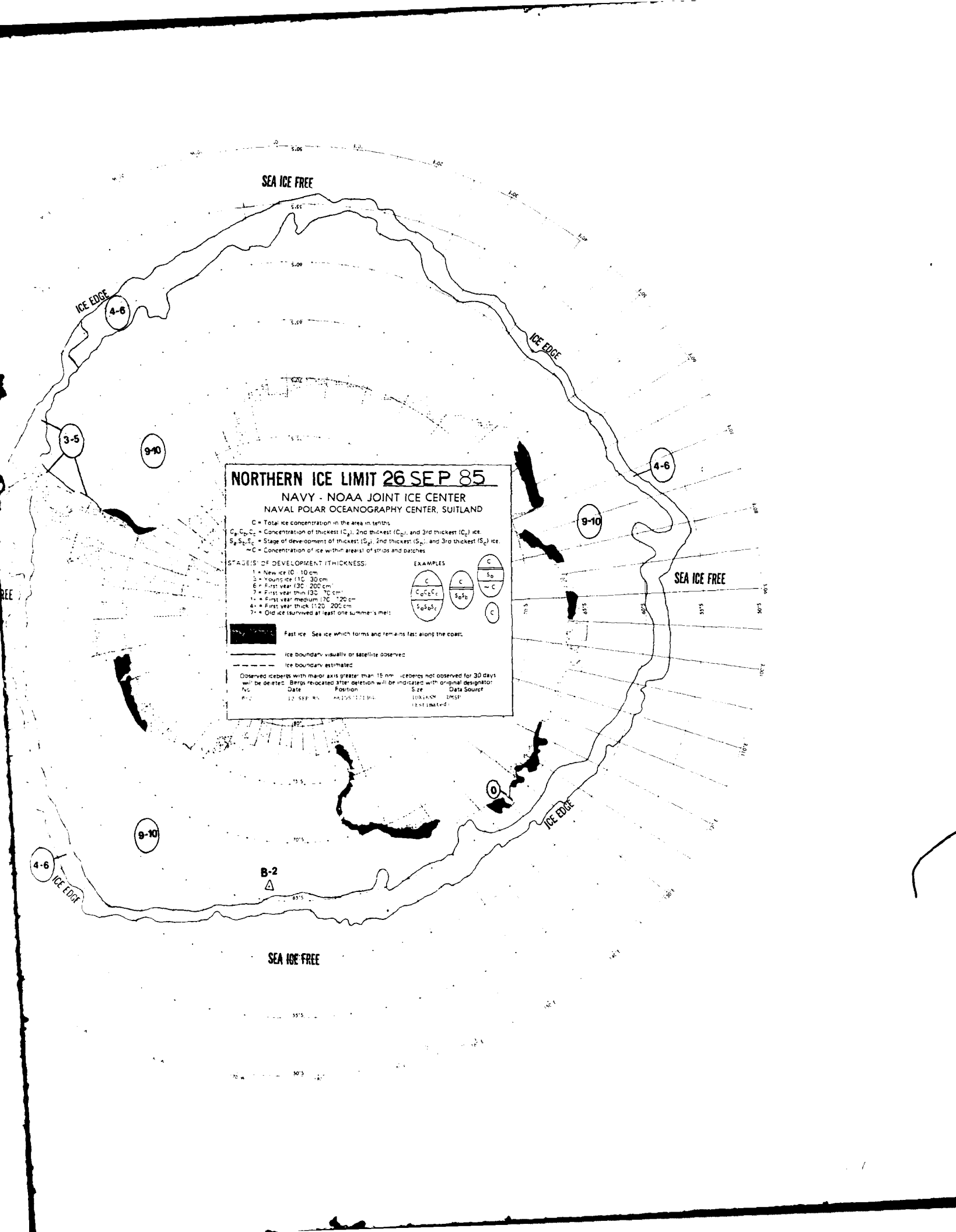
9-10

4-6

B-2

SEA ICE FREE





NORTHERN ICE LIMIT 03 OCT 85

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

C = Total ice concentration in the area in tenths
 C_1, C_2, C_3 = Concentration of thickest ice, 2nd thickest (C_2), and 3rd thickest C_3 ice
 S_1, S_2, S_3 = State of development of thickest ice, 2nd thickest ice, and 3rd thickest C_3 ice
M = Concentration of ice within areas of straits and channels

STAGE 5 OF DEVELOPMENT THICKNESS

- 1 = New ice 10-16 cm
- 2 = Young ice 17-30 cm
- 3 = First year 31-35 cm
- 4 = First year thin 36-75 cm
- 5 = First year medium 76-120 cm
- 6 = First year thick 121-205 cm
- 7 = Old ice survived at least one summer's melt

EXAMPLES

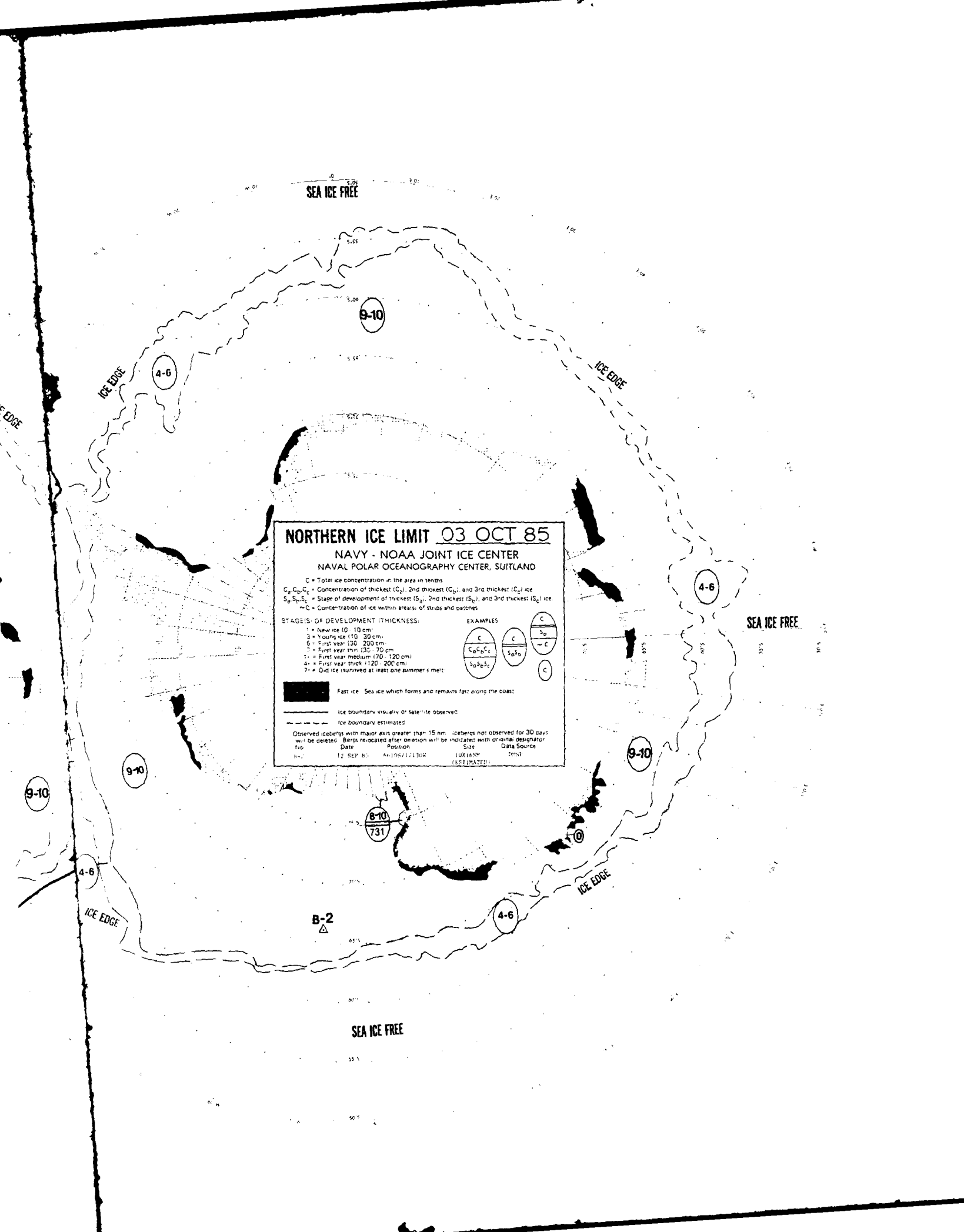
Fast ice: Sea ice which forms and remains fast along the coast:
--- ice boundary visually or satellite observed
--- ice boundary estimated

Observed icebergs with main axis greater than 15 nm. Icebergs not observed for 30 nm will be deleted. Berms relocated after deletion will be indicated with original descriptor.

no. Date Position Date Source

(2) SEE 1 10/01/85 1000000 1000000 1000000

SEA ICE FREE



NORTHERN ICE LIMIT 03 OCT 85

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

- C = Total ice concentration in the area in tenths
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
~C = Concentration of ice within areas of strips and patches
- STAGES OF DEVELOPMENT (THICKNESS):
- 1 = New ice (0 - 10 cm)
 - 2 = Young ice (10 - 30 cm)
 - 3 = First year (30 - 200 cm)
 - 4 = First year thin (30 - 70 cm)
 - 5 = First year medium (70 - 120 cm)
 - 6 = First year thick (120 - 200 cm)
 - 7 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice - Sea ice which forms and remains fast along the coast

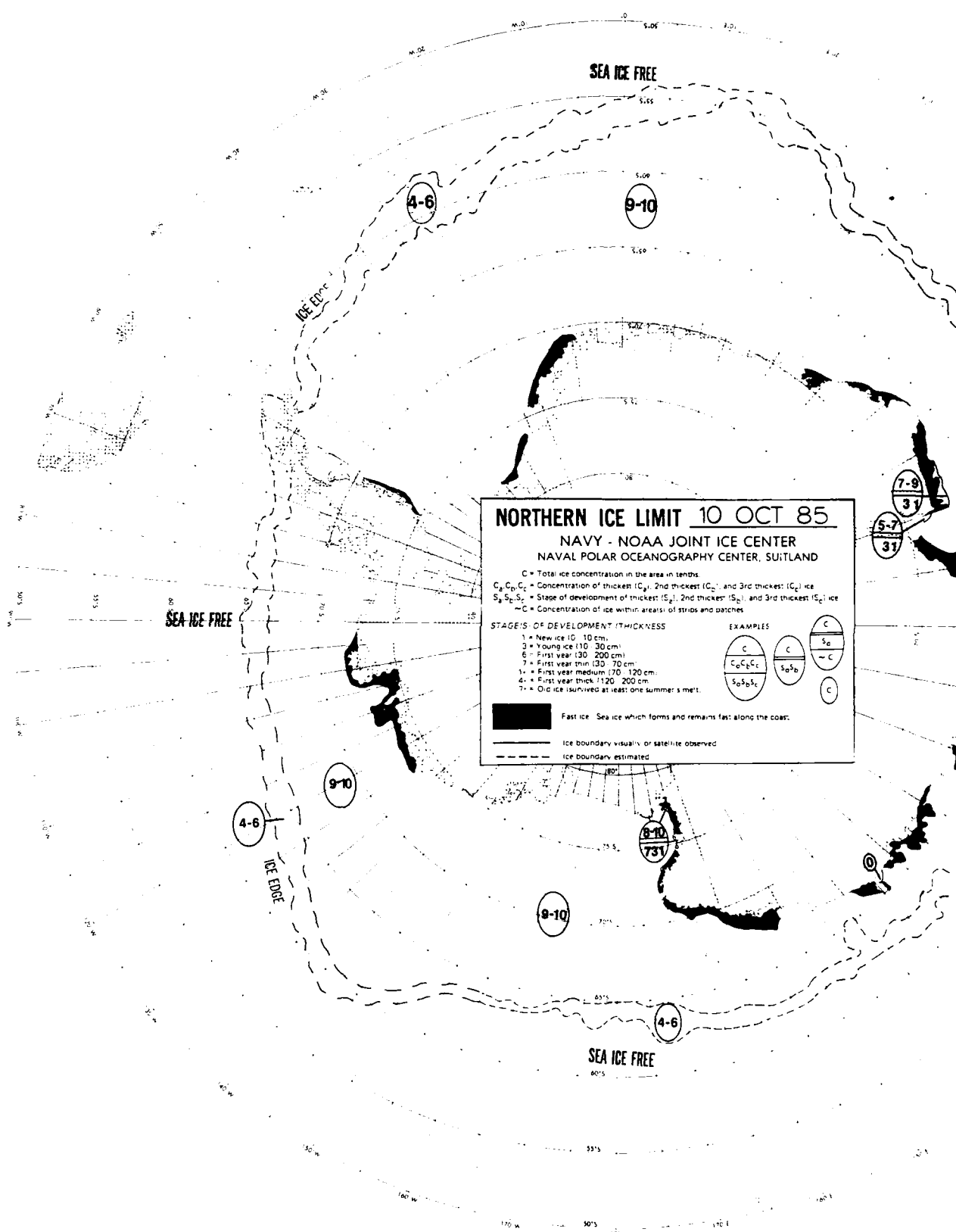
Ice boundary visually or satellite observed

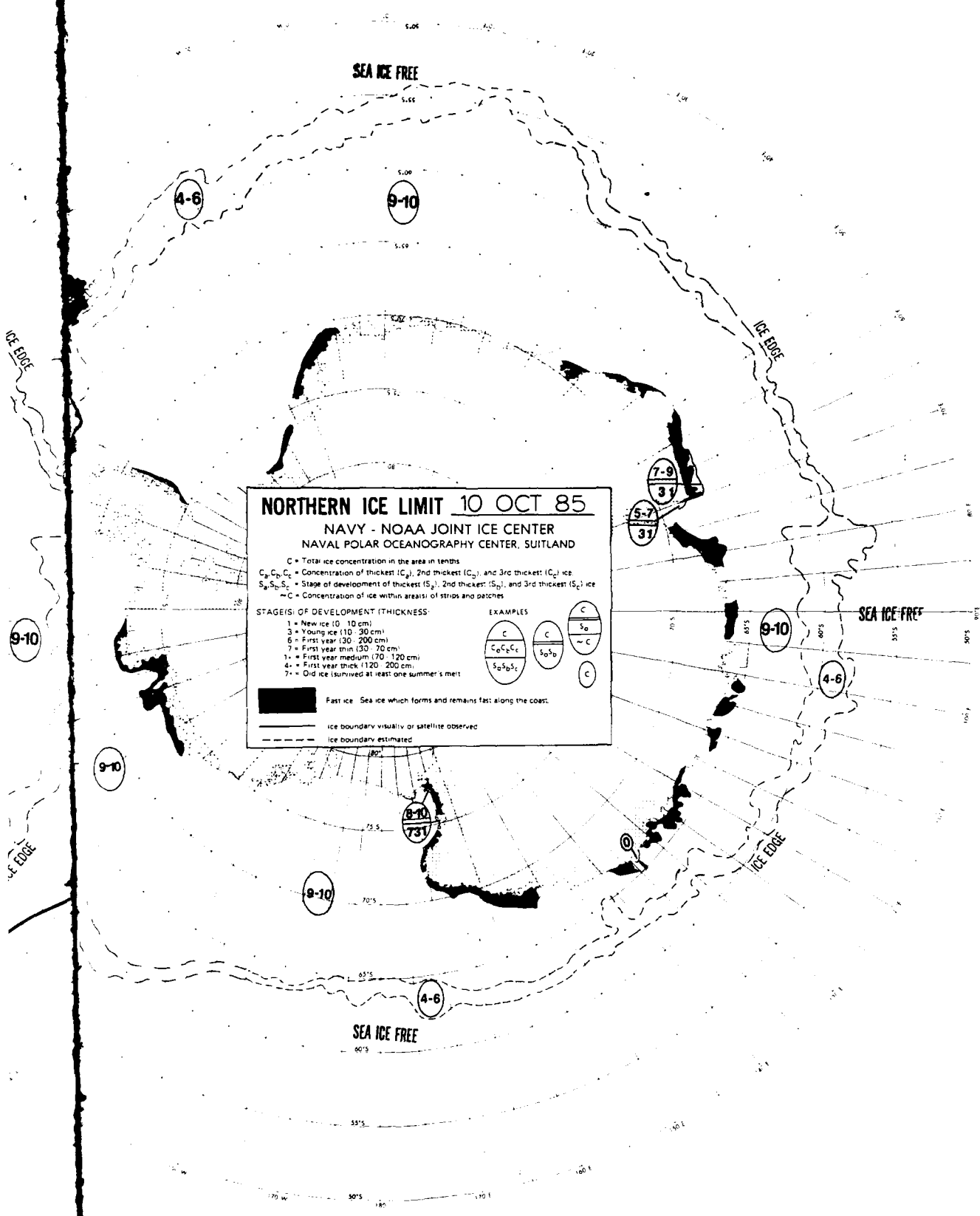
Ice boundary estimated

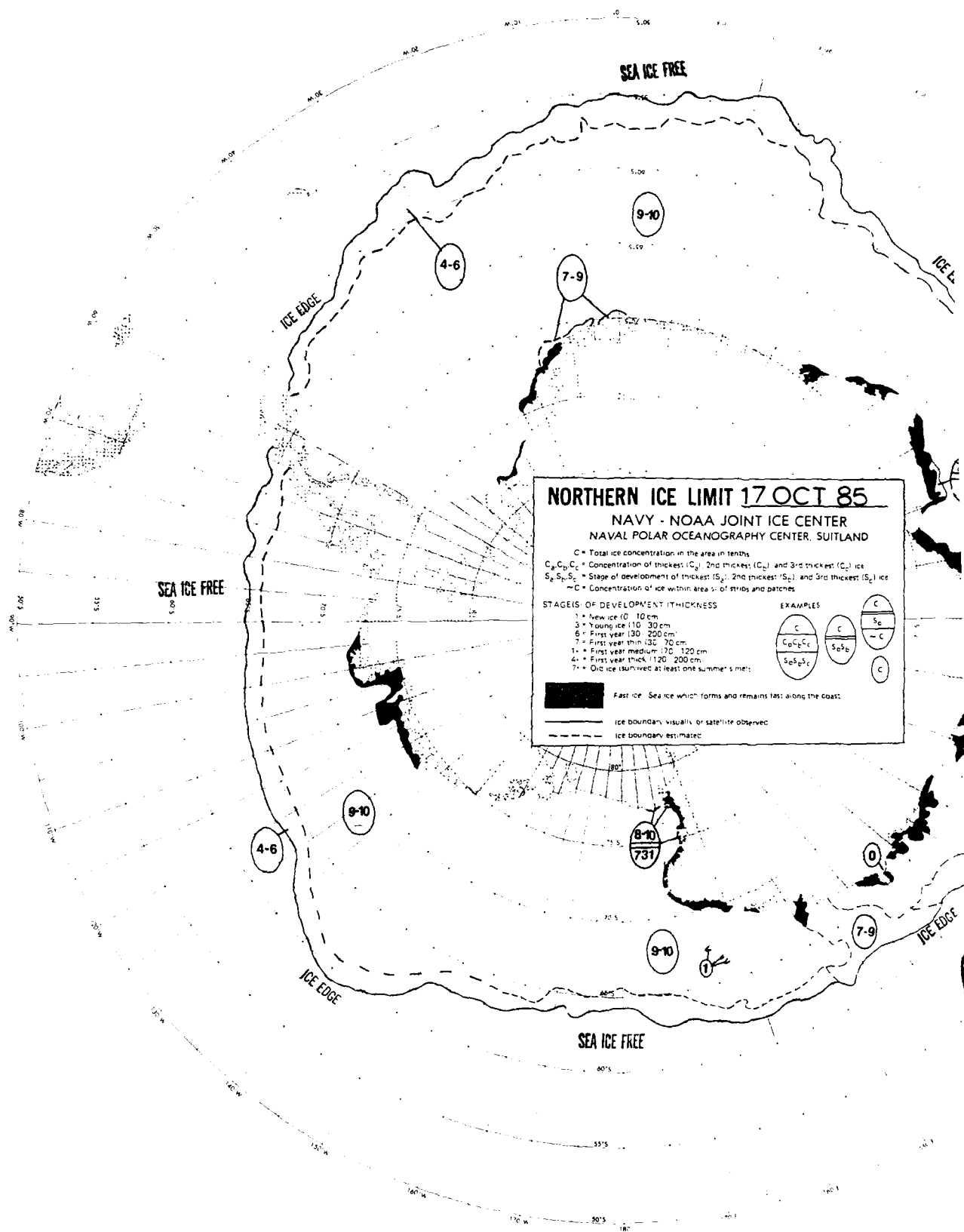
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

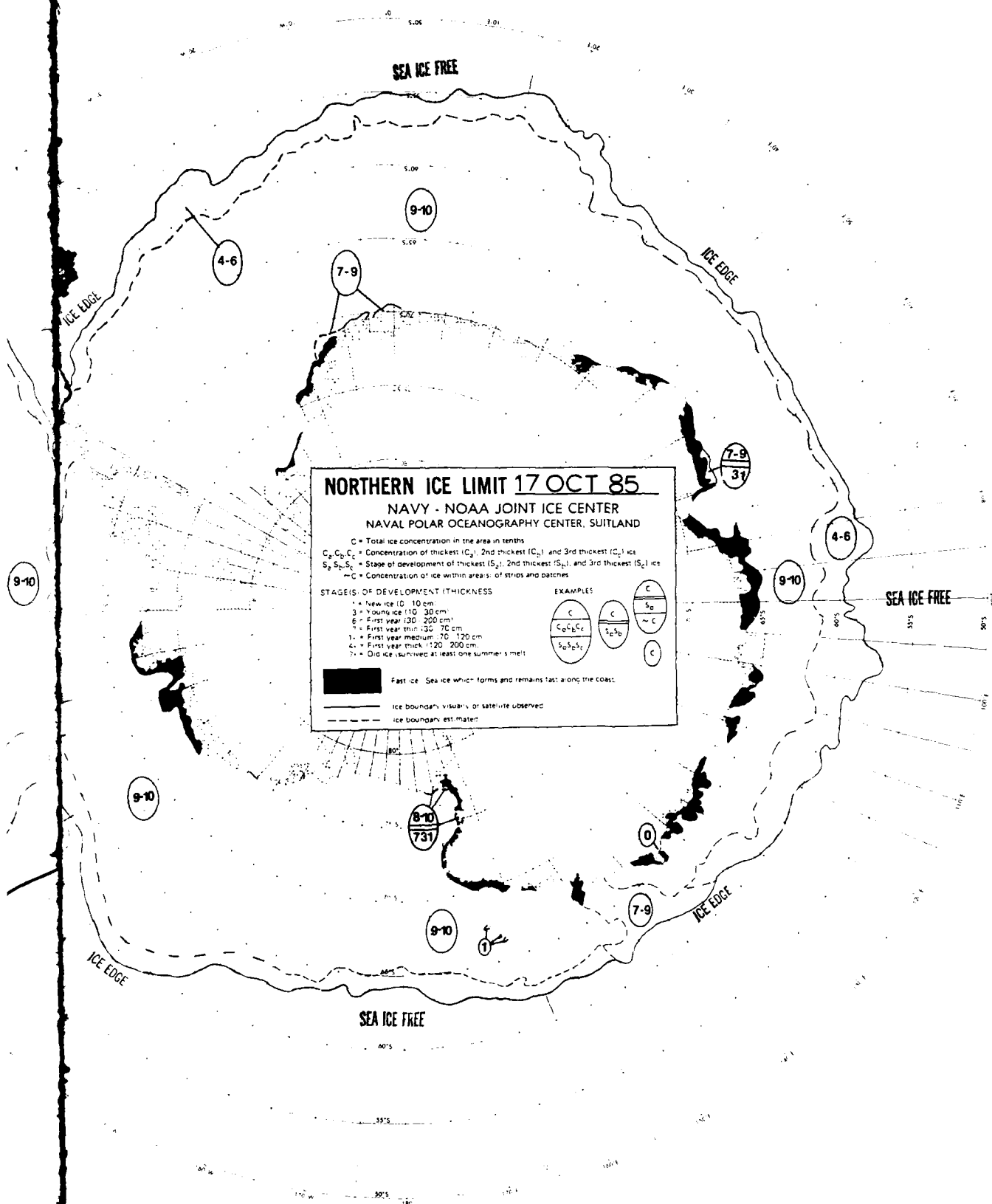
File: 12 SEP 85 4610N/12130W (ESTIMATED) 20MS

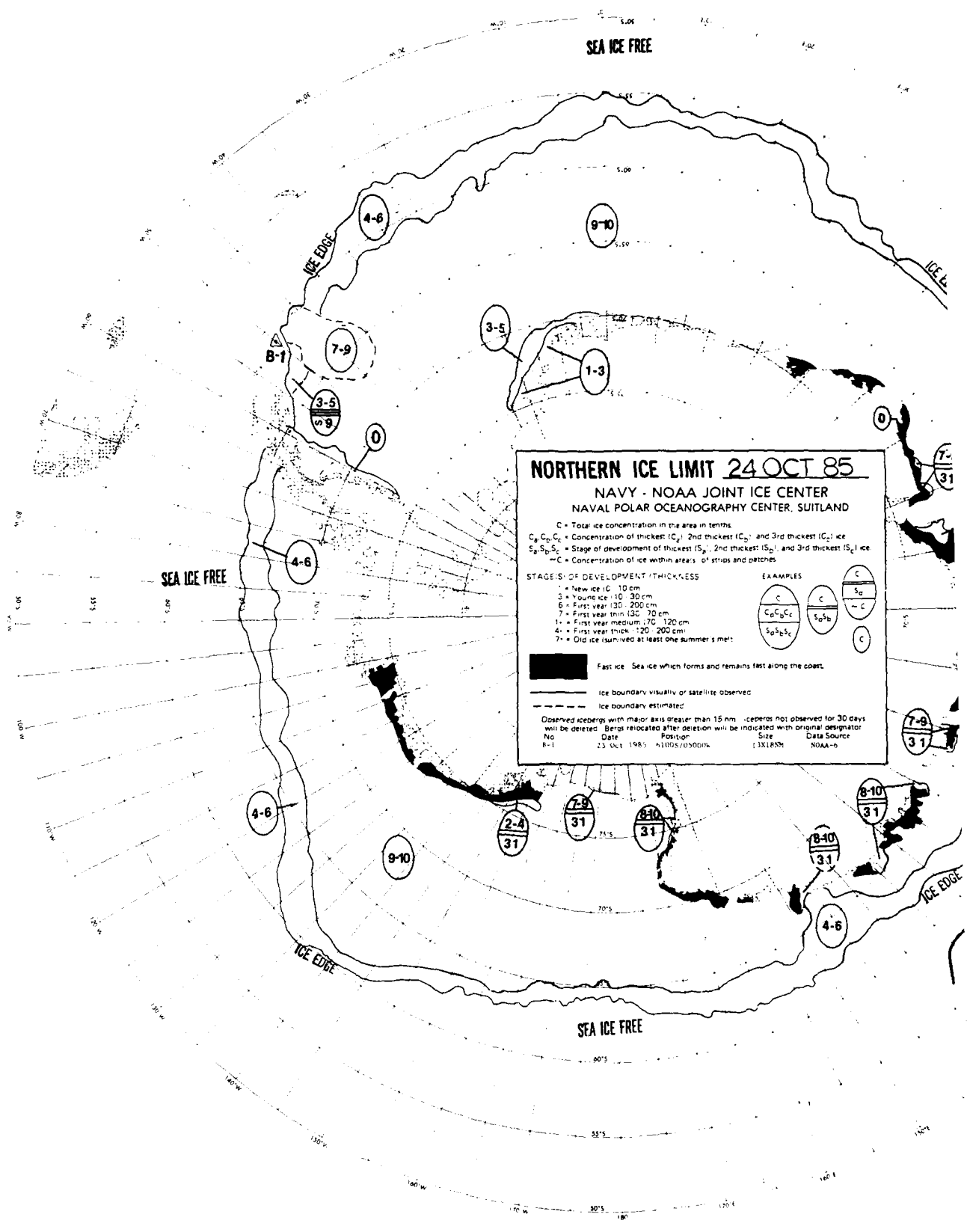
SEA ICE FREE

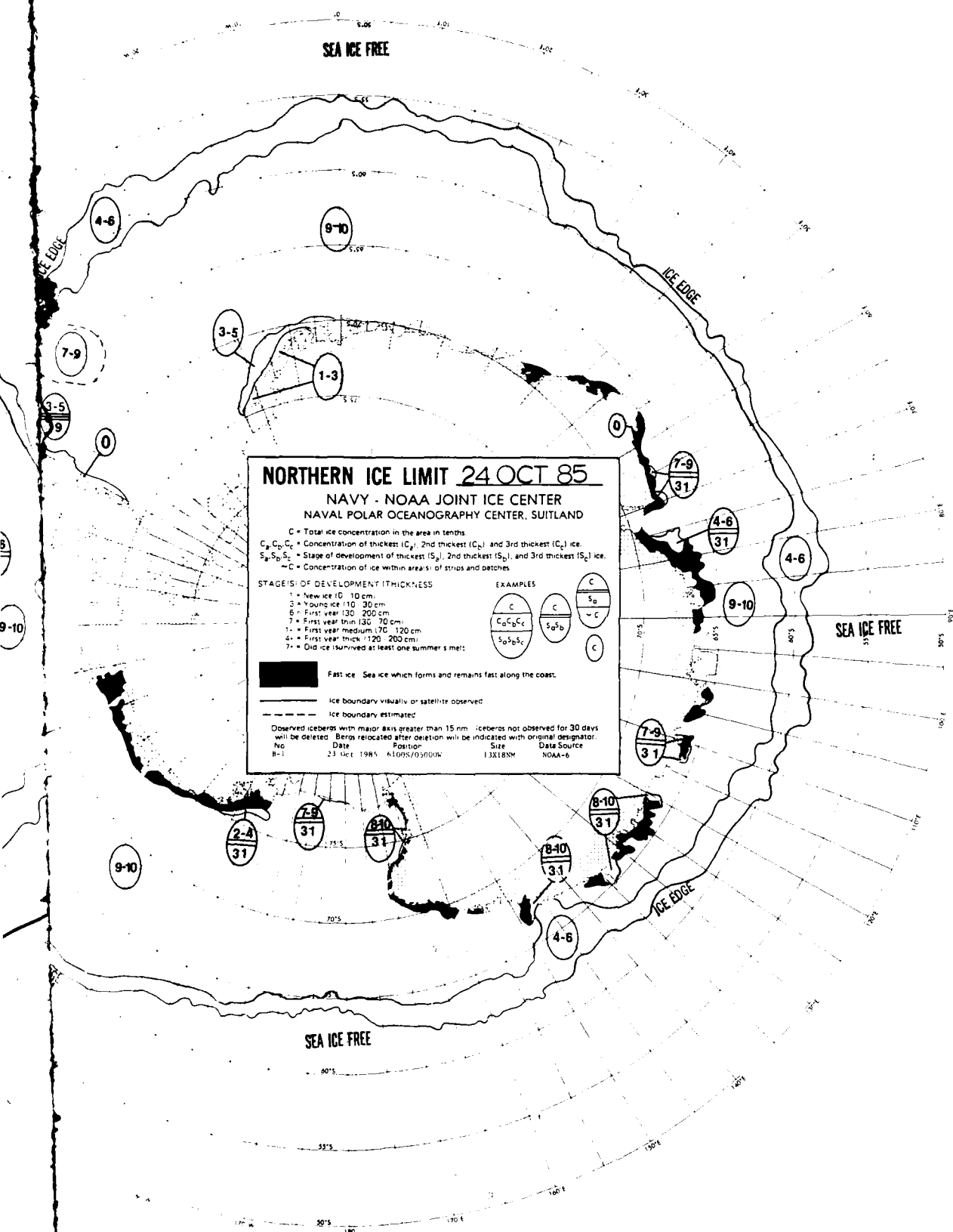












SEA ICE FREE

SEA ICE FREE

NORTHERN ICE LIMIT 31 OCT 85

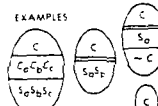
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
-C = Concentration of ice within areas of strips and patches

STAGES OF DEVELOPMENT BY THICKNESS

- 1 = New ice 10-30 cm
- 2 = First year 30-70 cm
- 3 = First year 70-120 cm
- 4 = First year 120-200 cm
- 5 = First year 200-300 cm
- 6 = First year 300-400 cm
- 7 = Old ice survived at least one summer's melt

EXAMPLES



Fast ice - Sea ice which forms and remains fast along the coast.

Ice boundary visually or satellite observed

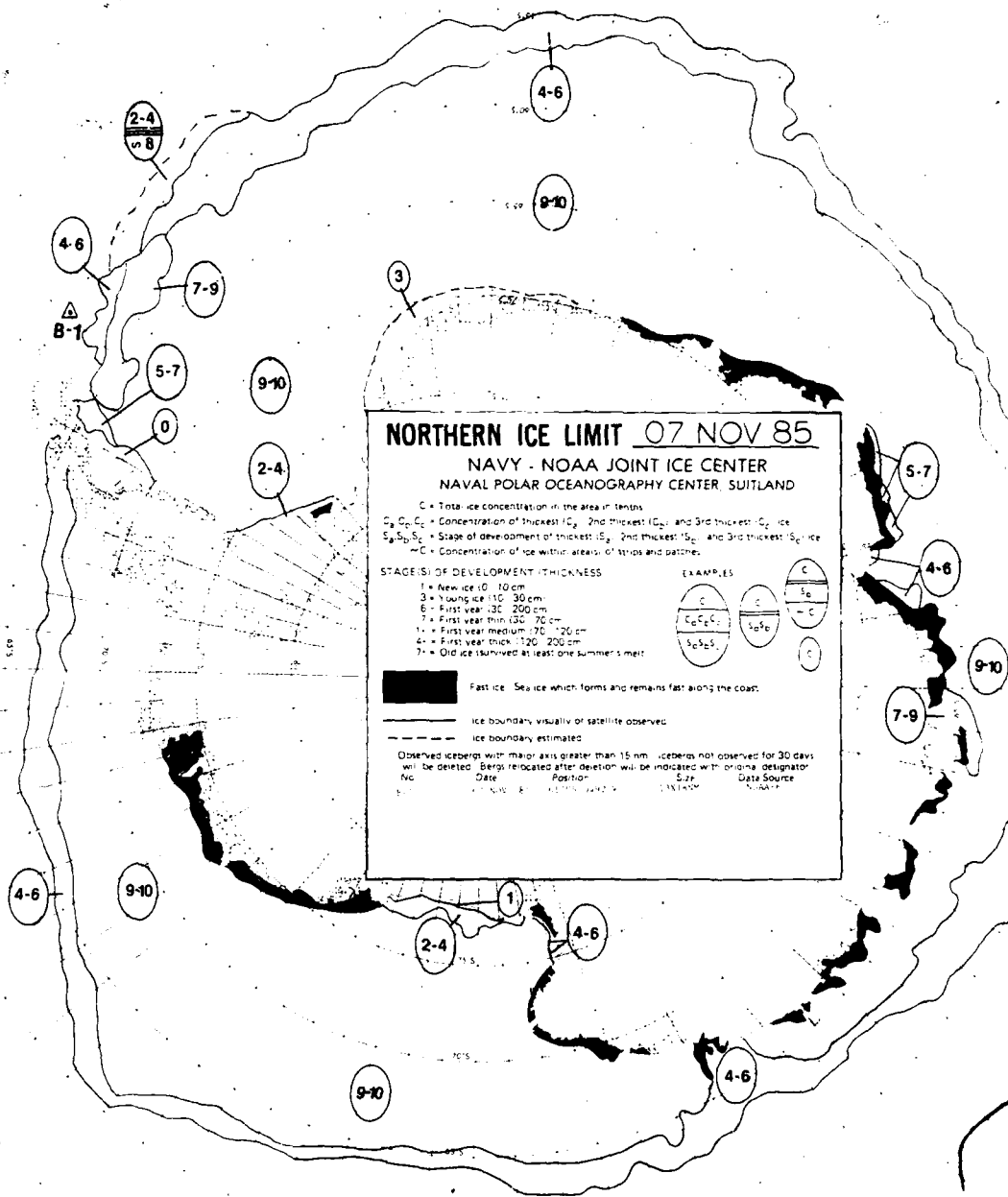
Ice boundary estimated

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

No.	Date	Position	Size	Data Source
101	24 OCT 1985	61°15'N 150°00'W	1 X 1.5 NM	NOAA-7

SEA ICE FREE

SEA ICE FREE



NORTHERN ICE LIMIT 07 NOV 85

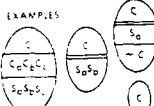
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁ C₂ C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁ S₂ S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
C = Concentration of ice within area's of strips and patches

STAGE S OF DEVELOPMENT BY THICKNESS

- 1 = New ice 10-16 cm
- 3 = Young ice 16-33 cm
- 6 = First year 33-200 cm
- 7 = First year thin 130-70 cm
- 1 = First year medium 70-120 cm
- 4 = First year thick 120-200 cm
- 7 = Old ice (survived at least one summer's melt)

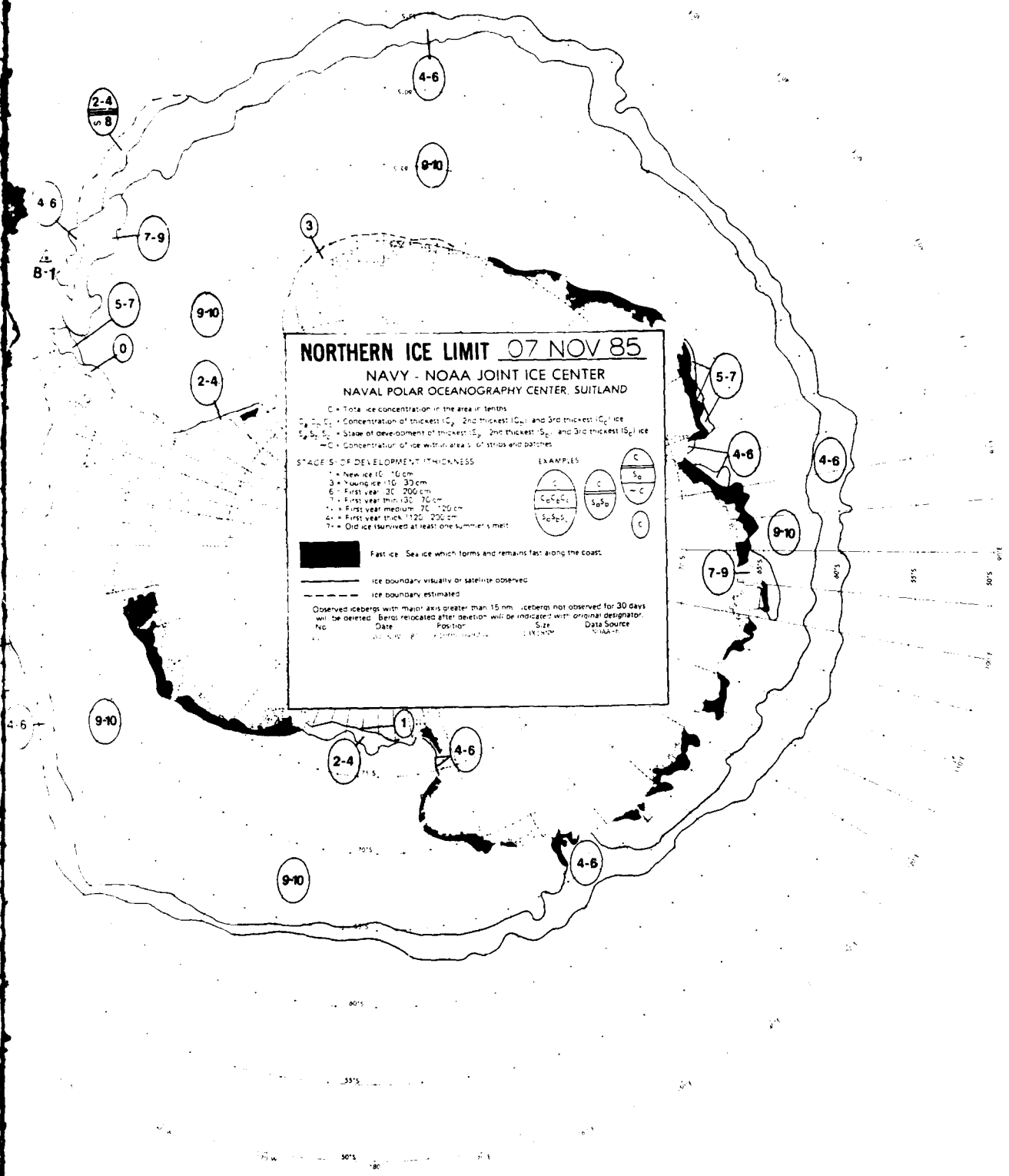
EXAMPLES



Fast 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 original designator.
No Date Position Size Data Source



SEA ICE FREE

SEA ICE FREE

SEA ICE FREE

NORTHERN ICE LIMIT 14 NOV 85

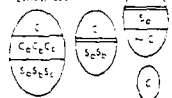
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
mC = Concentration of ice within areas of strips and patches

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0-10 cm)
- 2 = Young ice (10-30 cm)
- 3 = First year thin (30-70 cm)
- 4 = First year medium (70-120 cm)
- 5 = First year thick (120-200 cm)
- 6 = Old ice (survived at least one summer's melt)

EXAMPLES



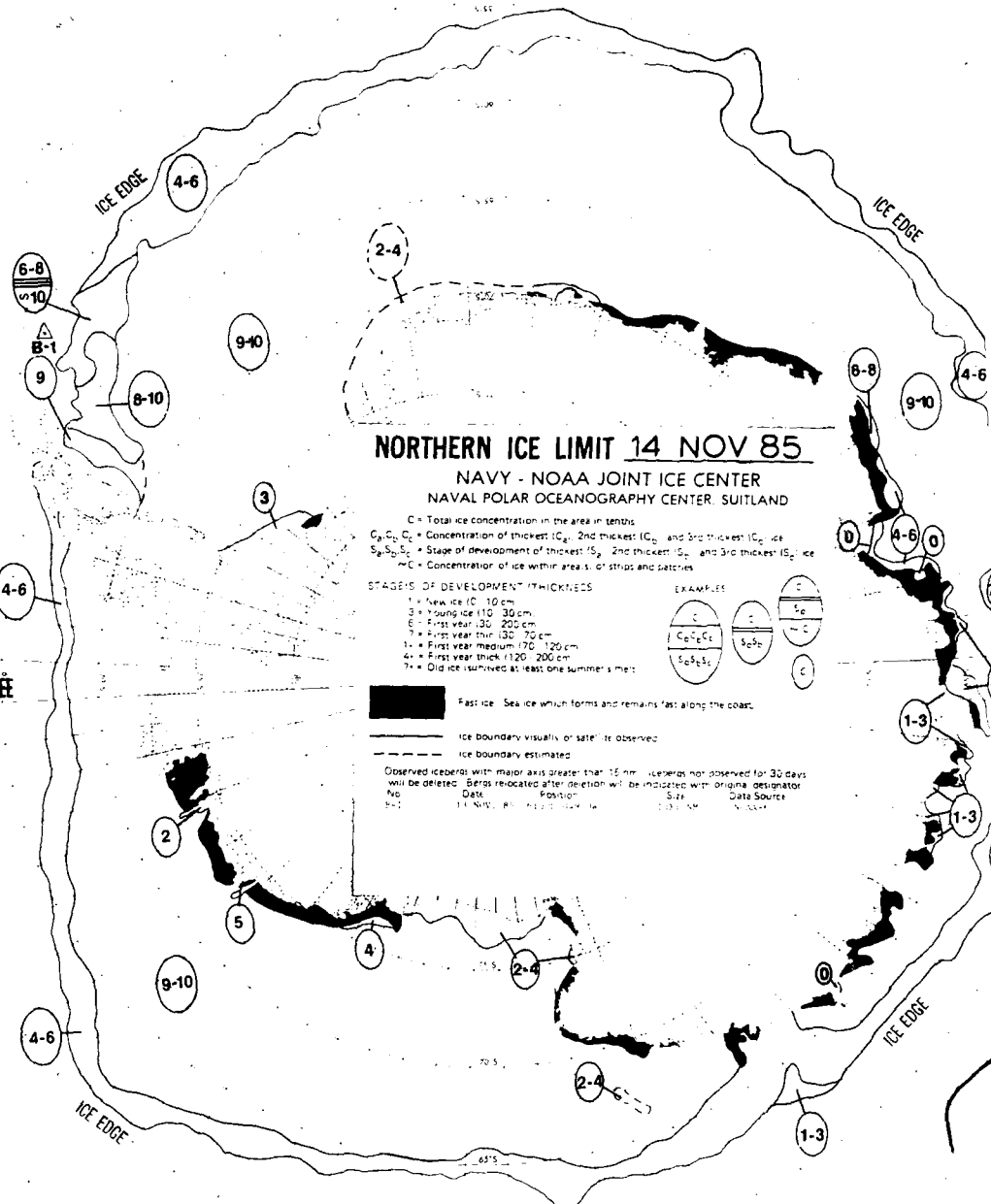
Fast ice: Sea ice which forms and remains fast along the coast.

Ice boundary visually or satellite observed

Ice boundary estimated

Observed icebergs with major axis greater than 15 m (icebergs not observed for 30 days will be deleted). Bergs re-located after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
5-1	14 NOV 85	65° 15' N 150° 15' W	100 x 150 m	NOAA



AD-A184 102

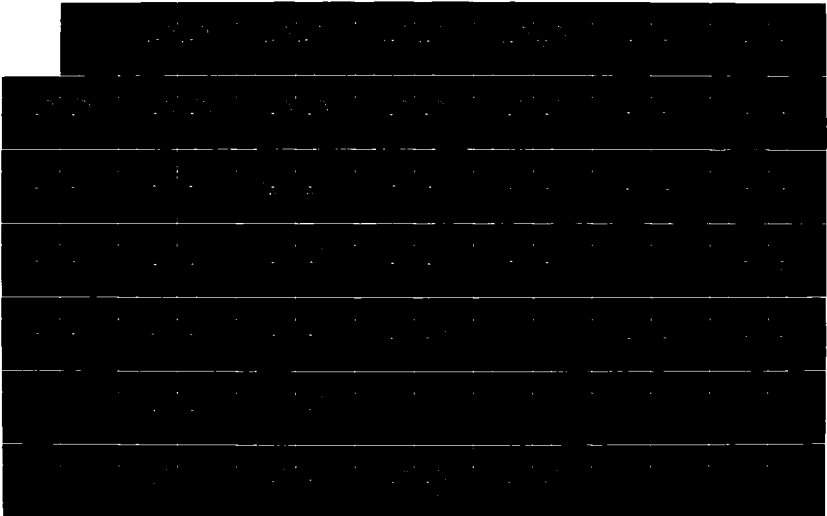
ANTARCTIC ICE CHARTS 1985-1986(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC AUG 87

2/3

UNCLASSIFIED

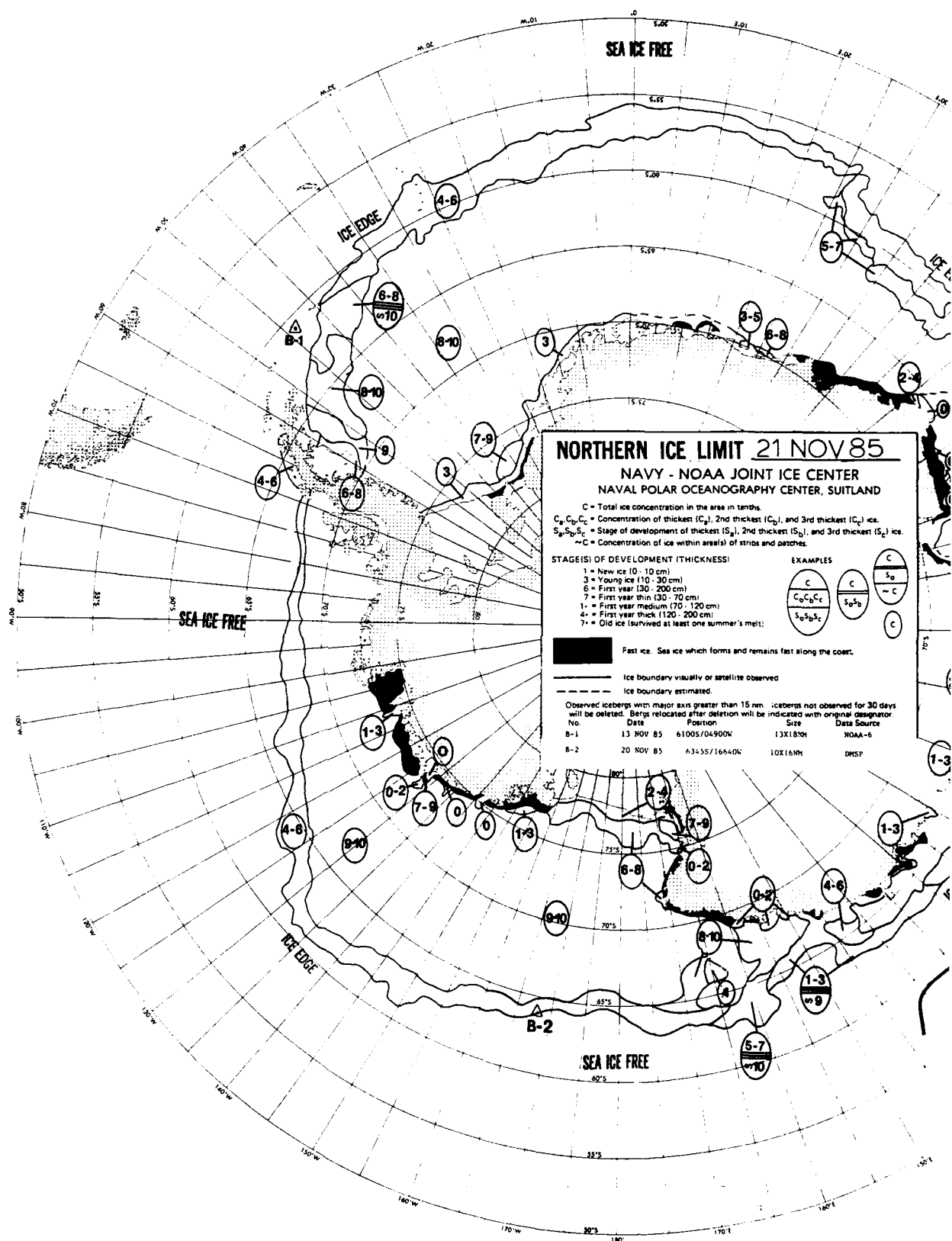
F/G 3/12

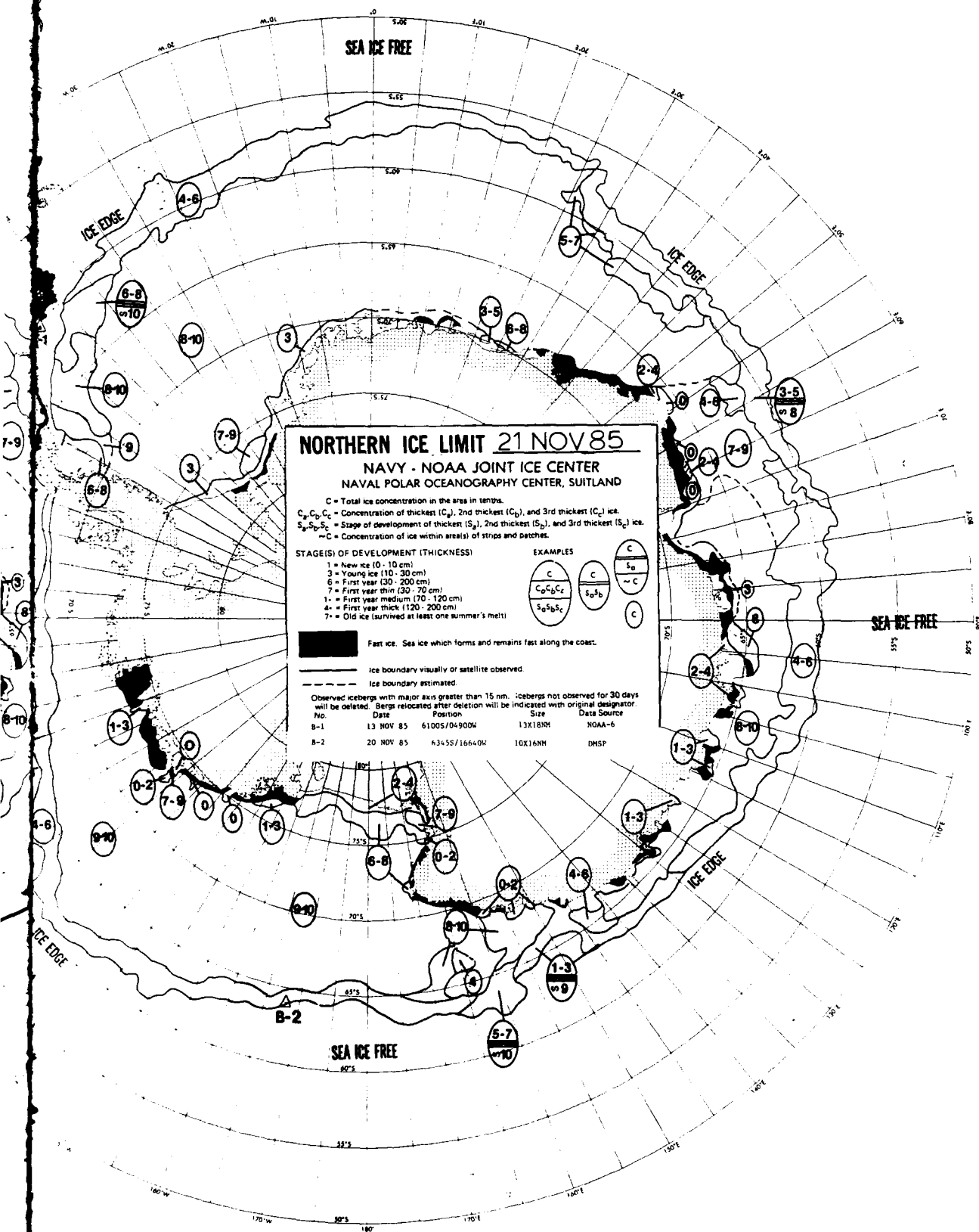
NL

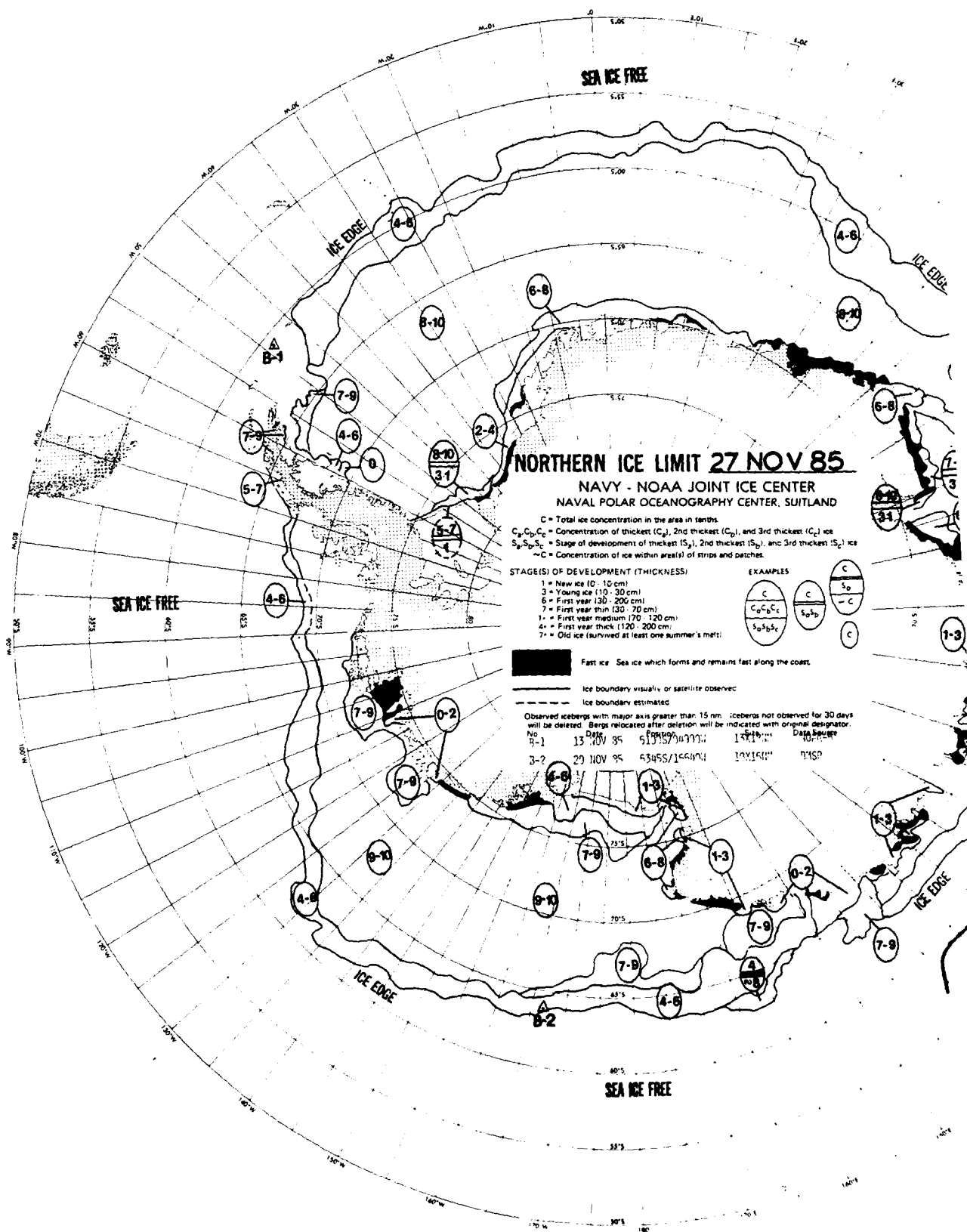


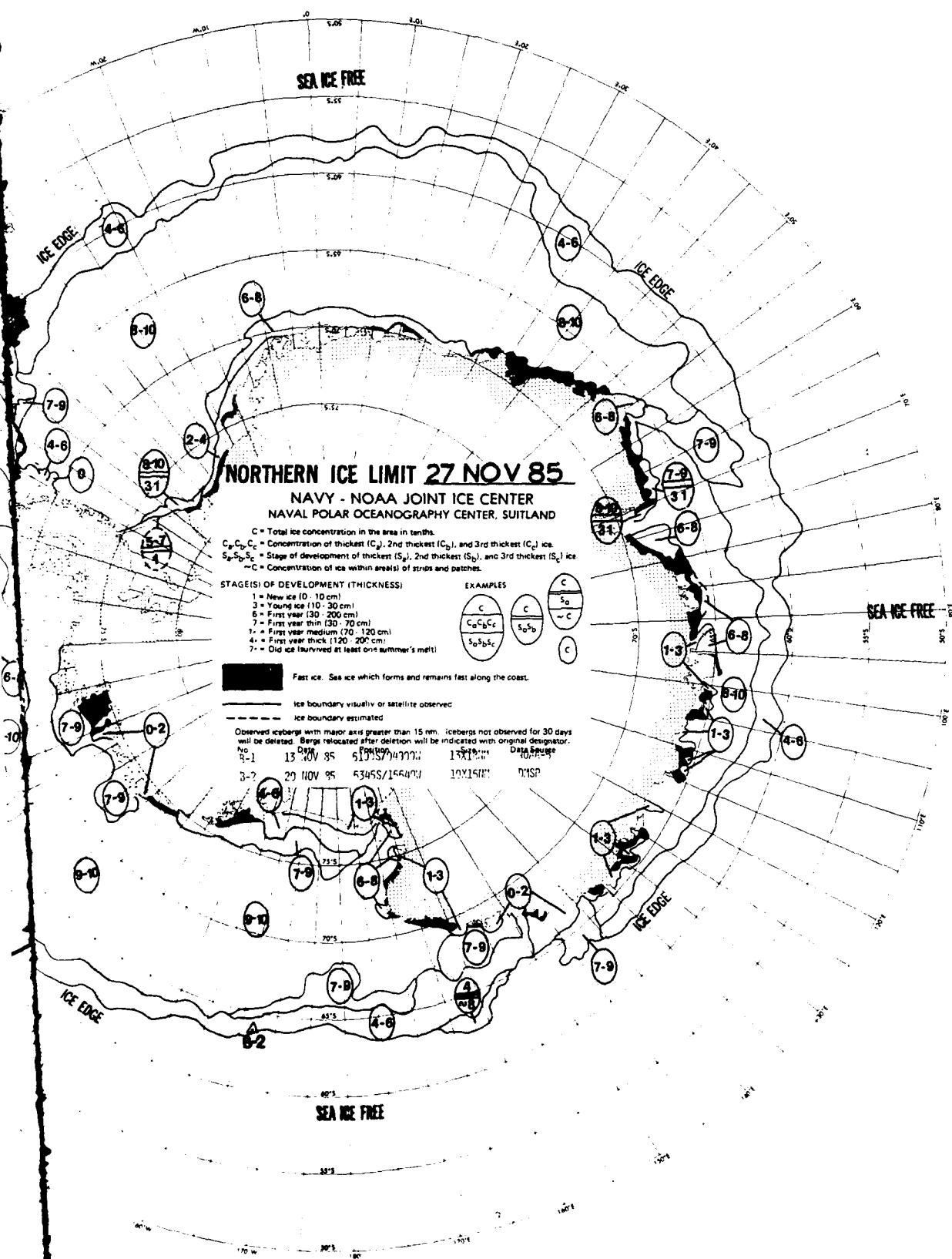


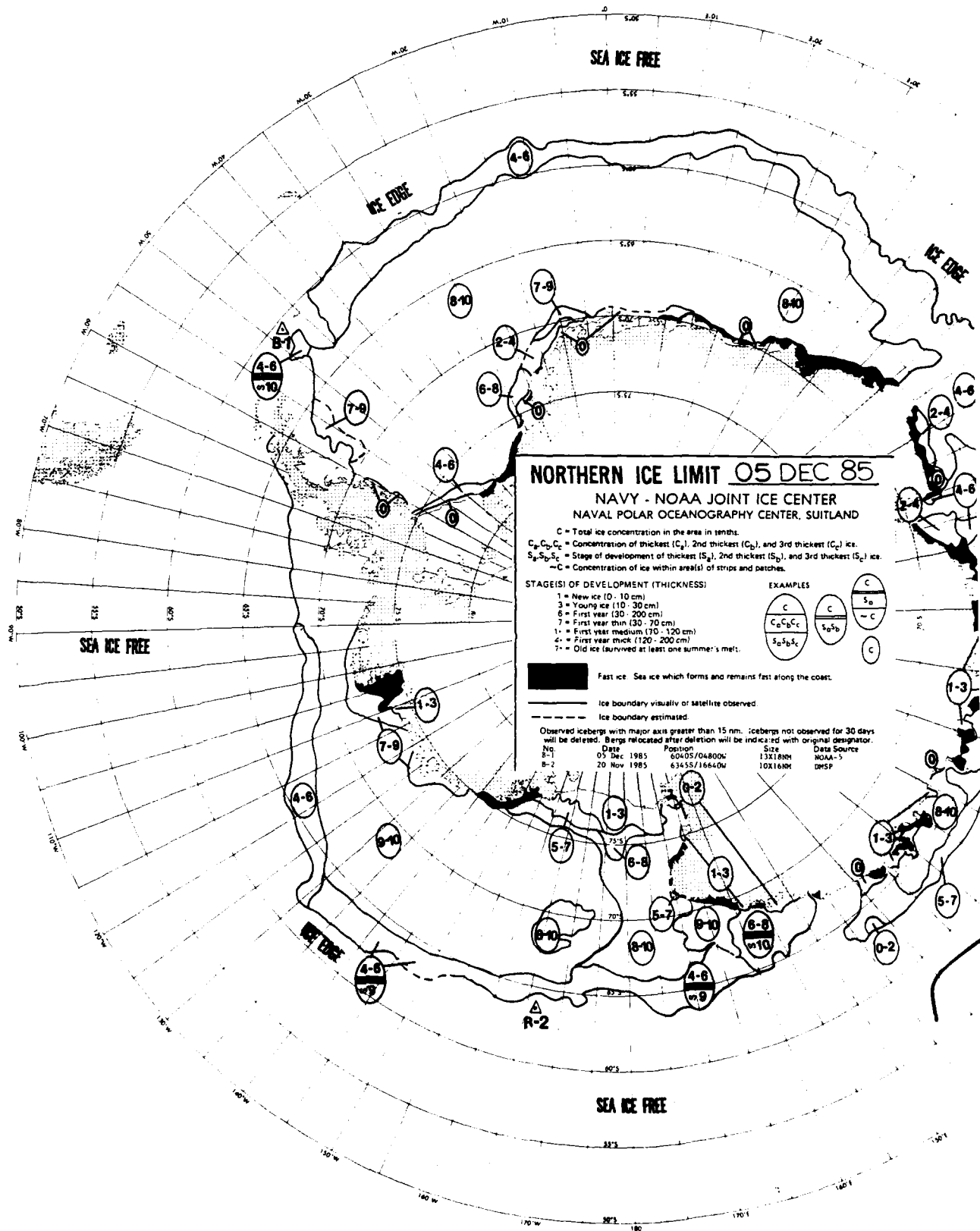
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

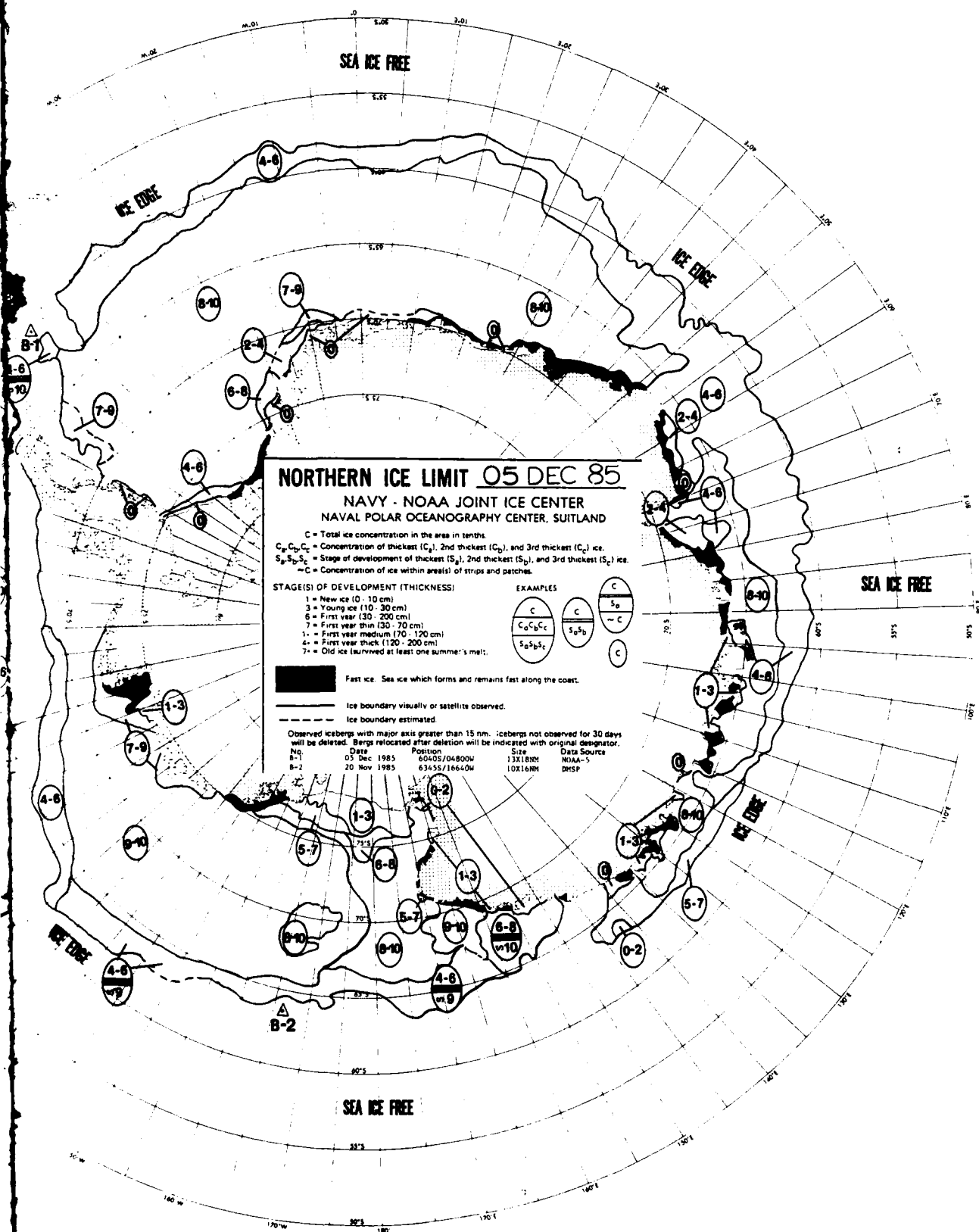


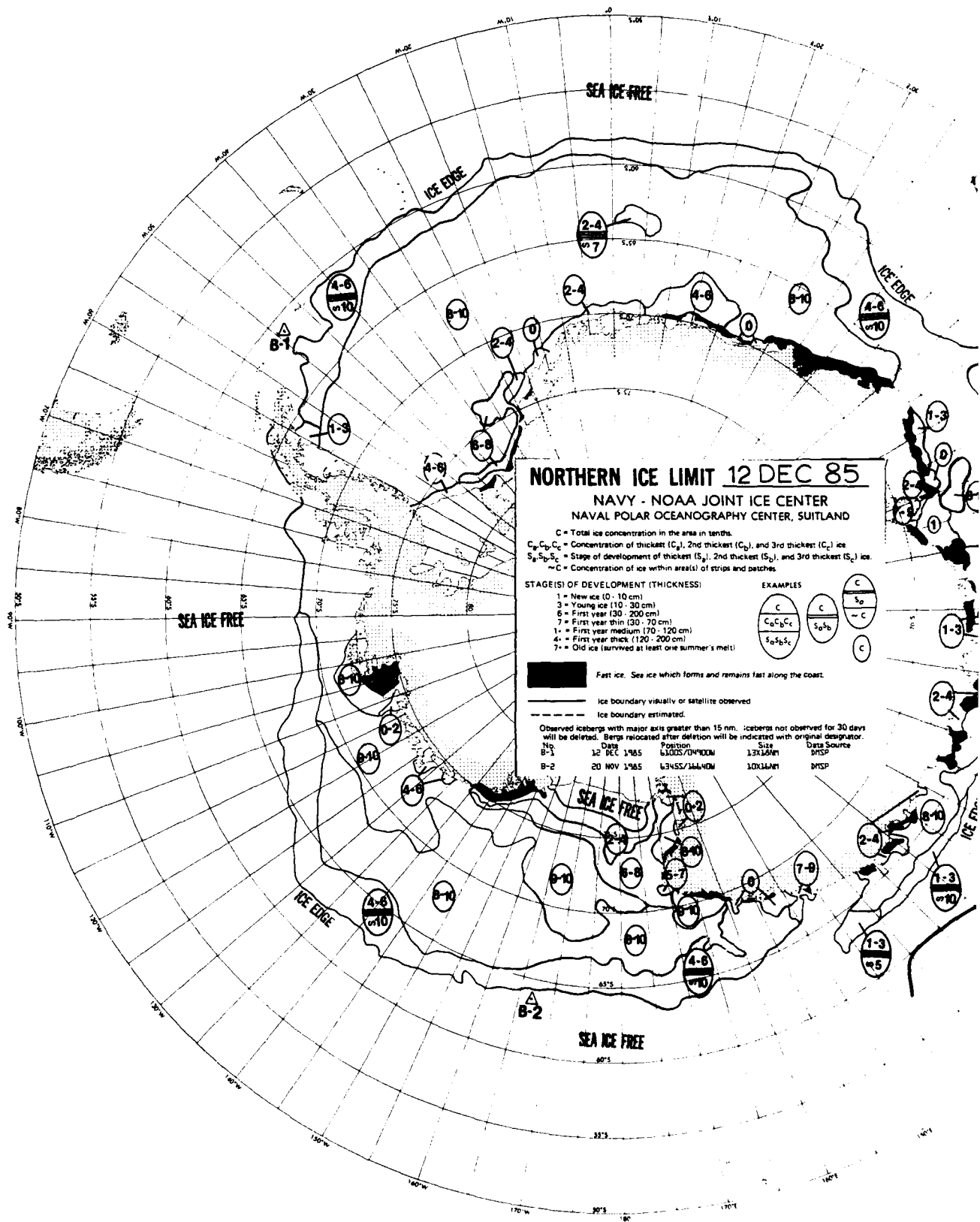


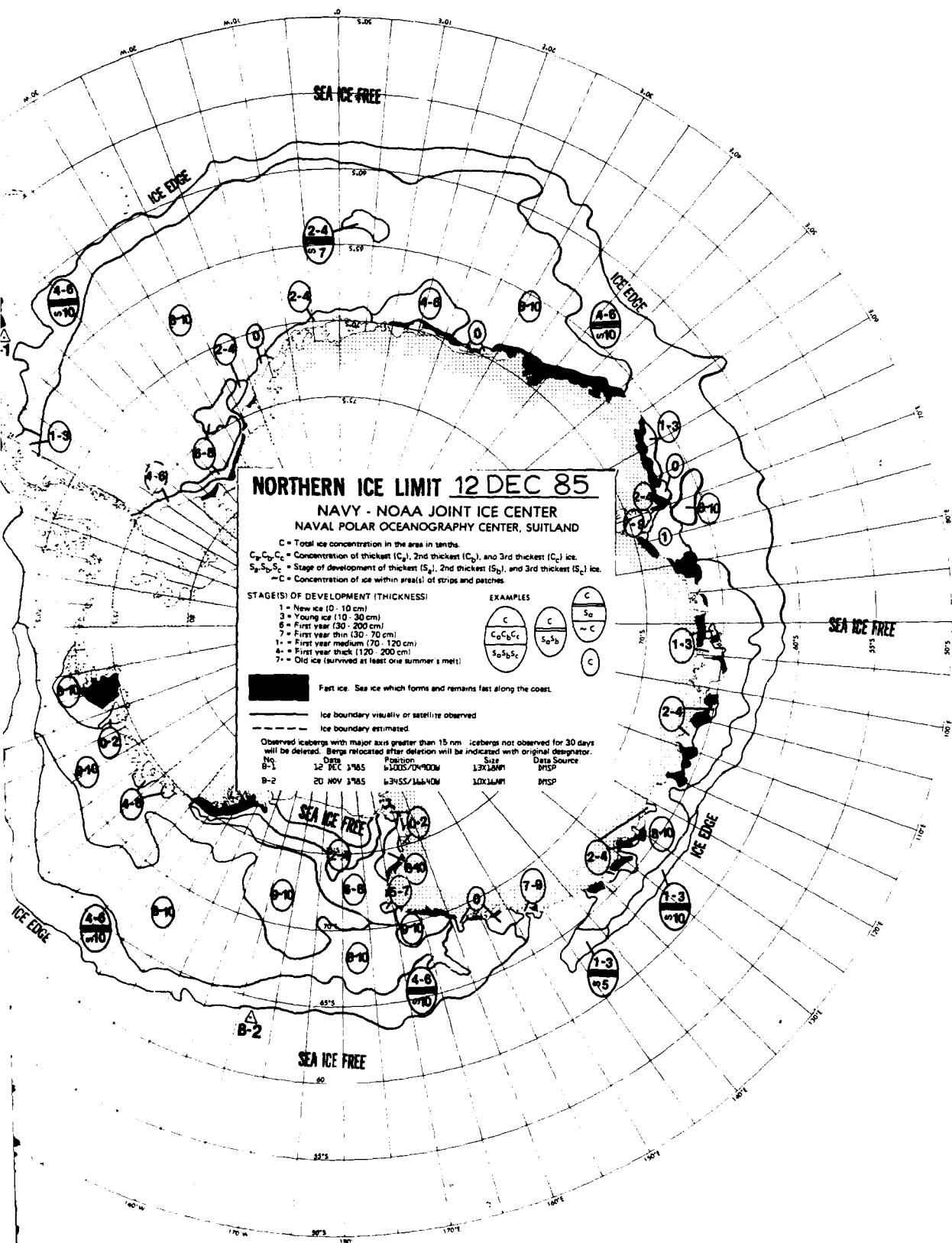


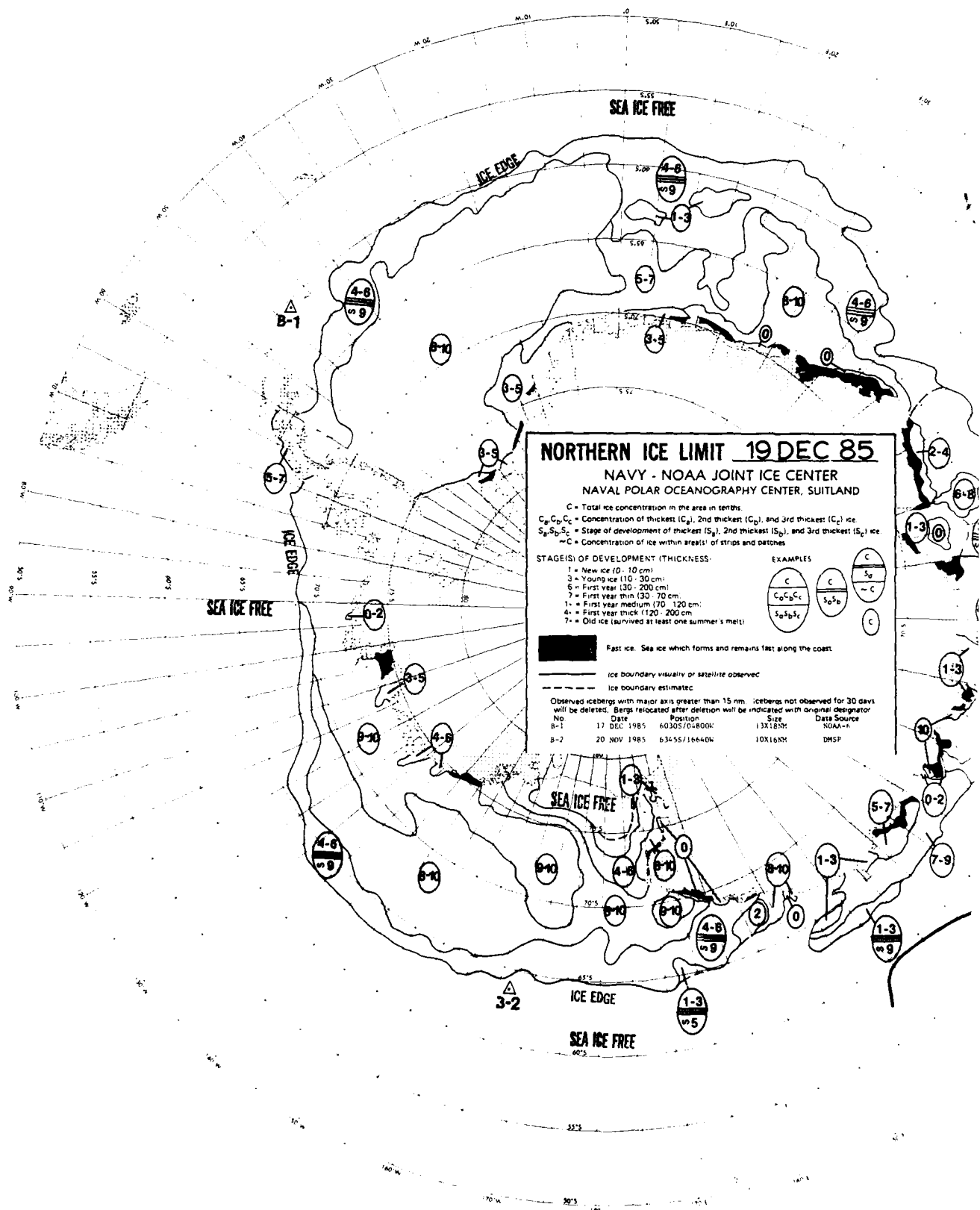


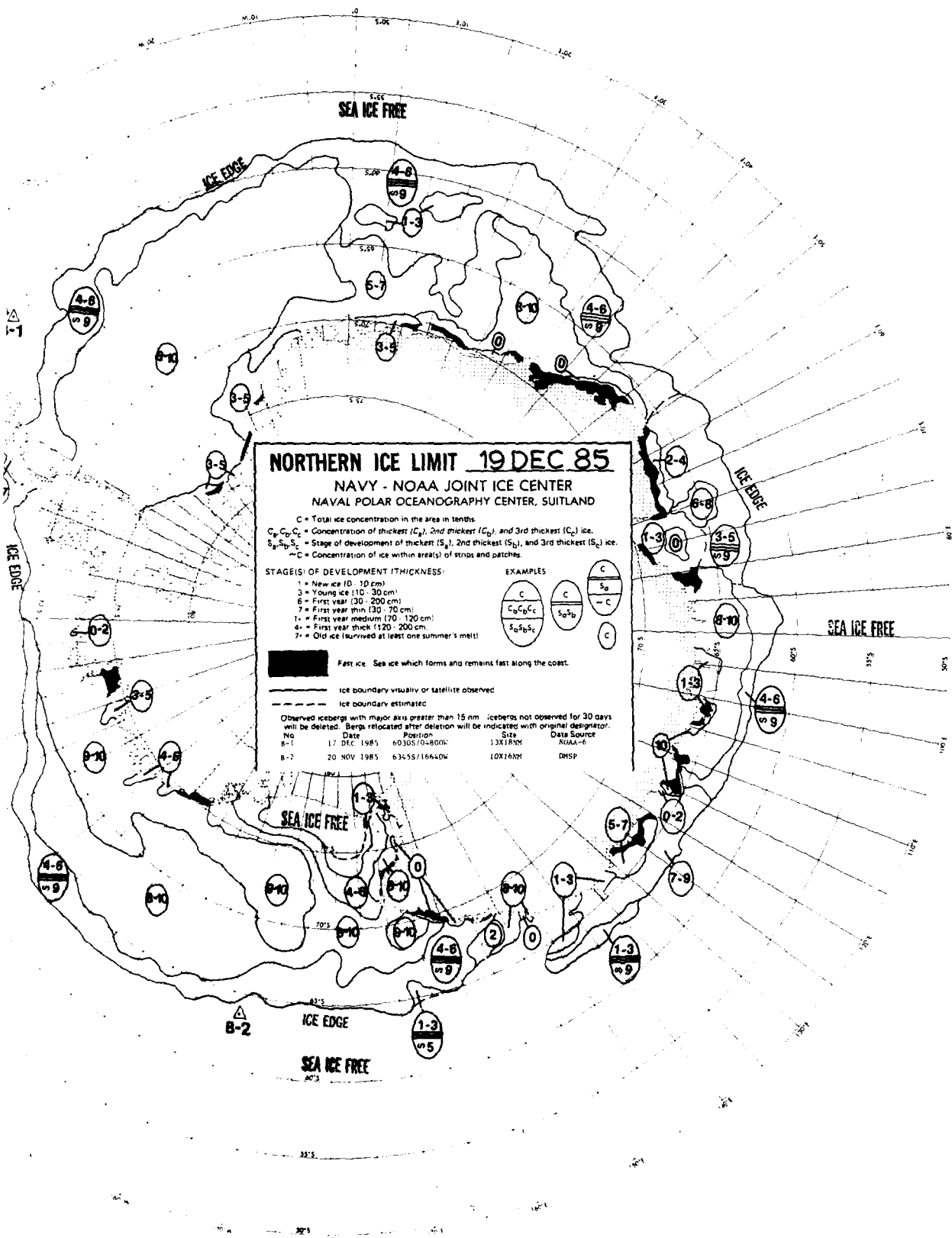


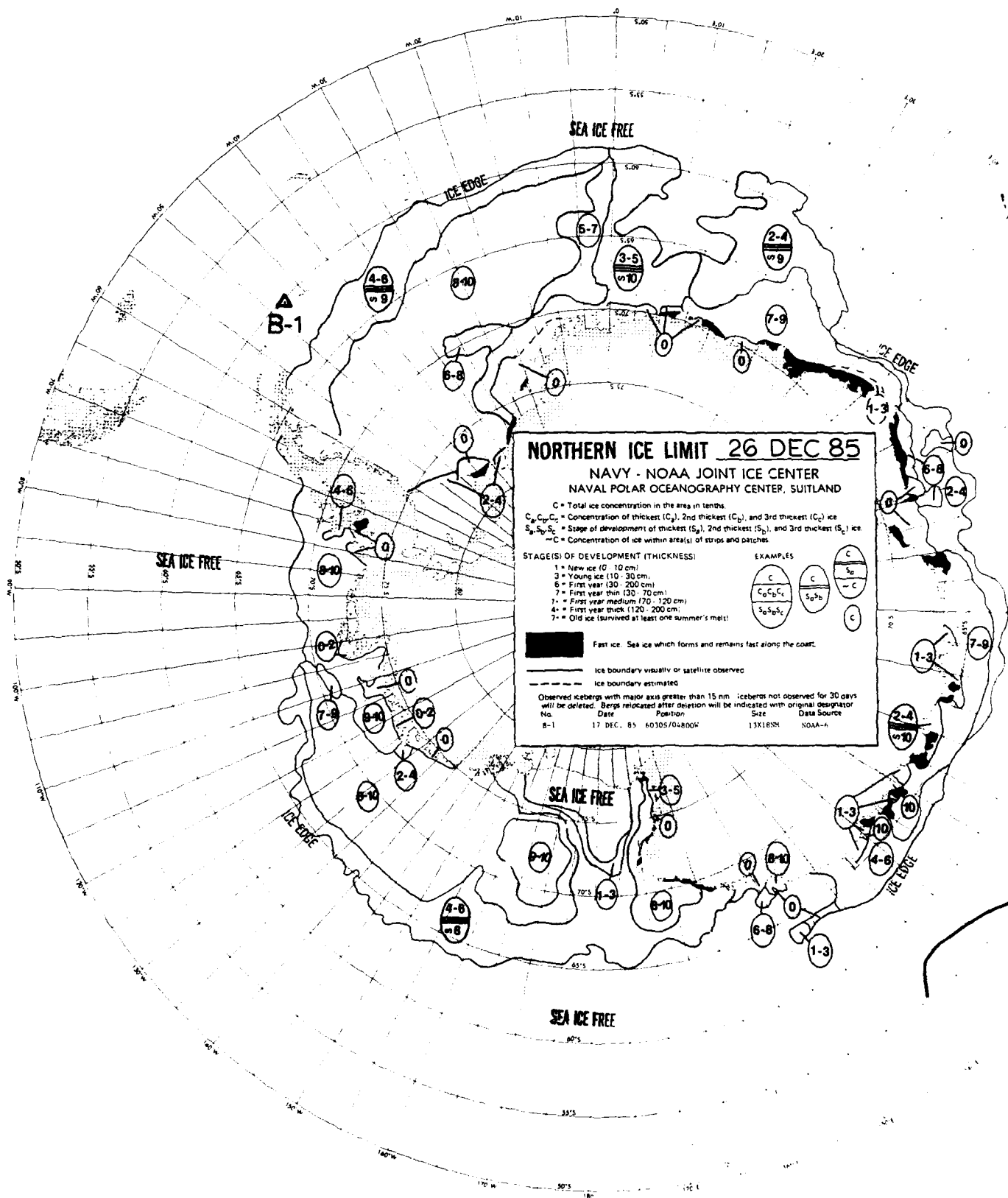












NORTHERN ICE LIMIT 26 DEC 85

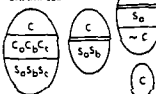
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
~C = Concentration of ice within areals of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year thin (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



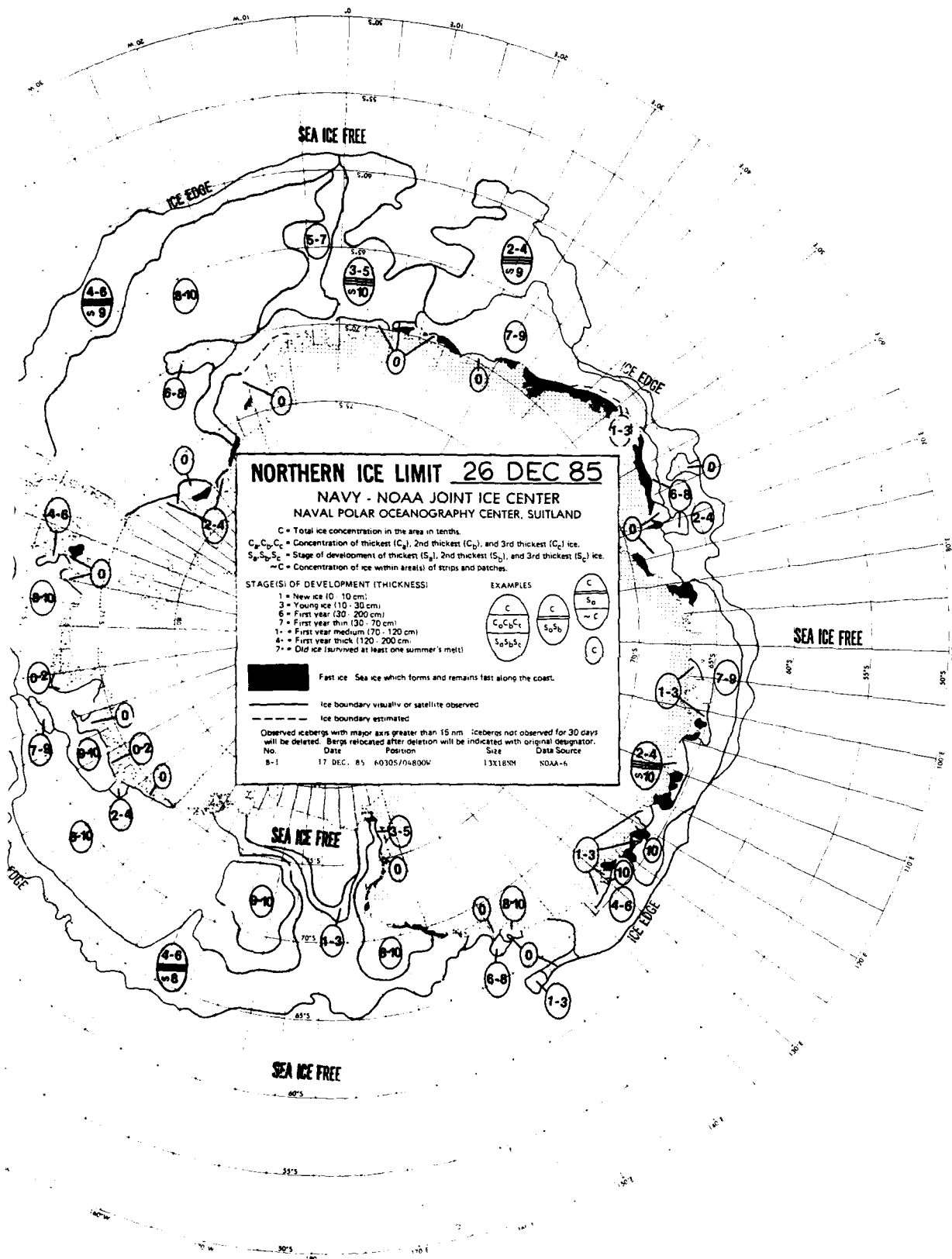
Fast ice Sea ice which forms and remains fast along the coast.

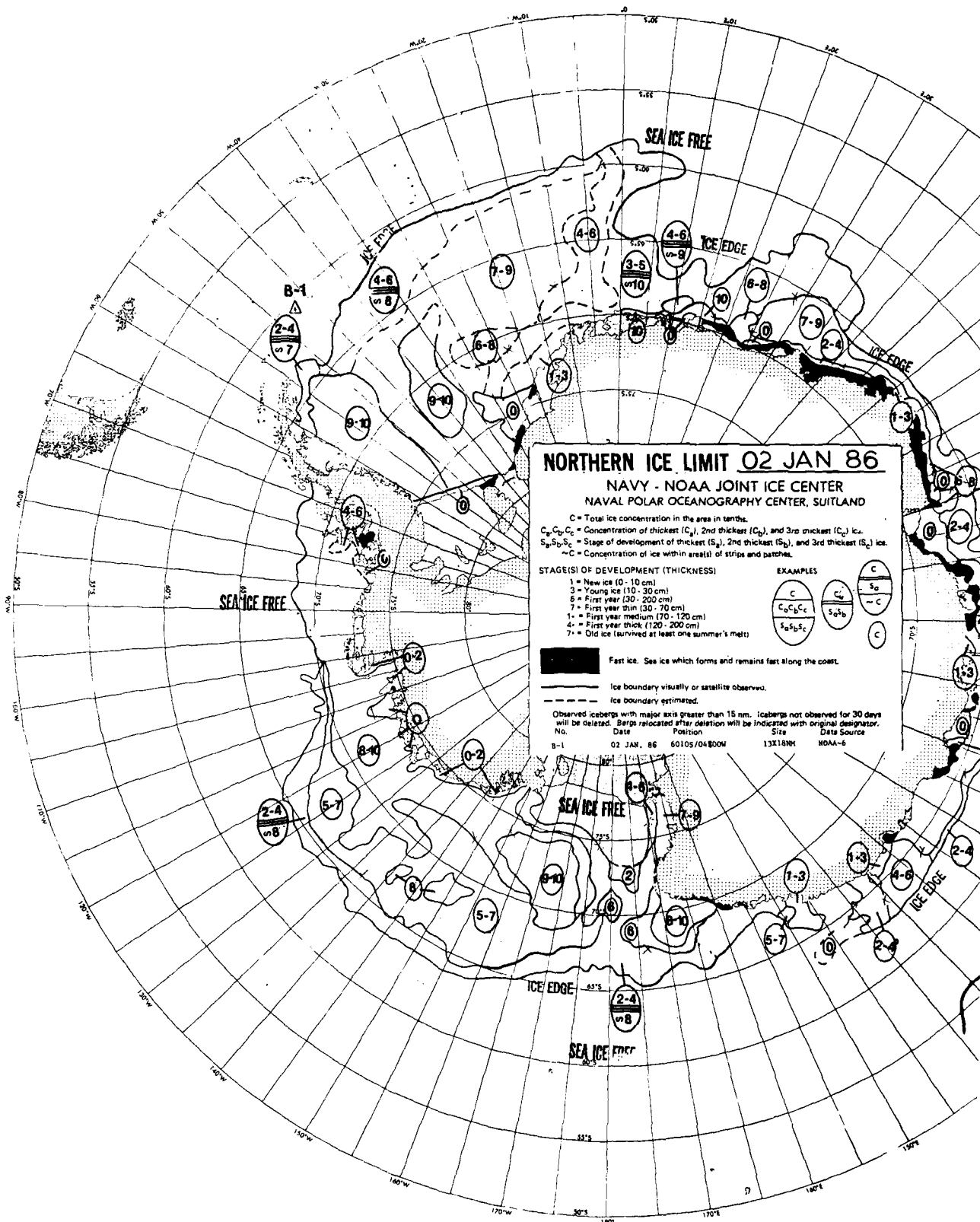
Ice boundary visually or satellite observed

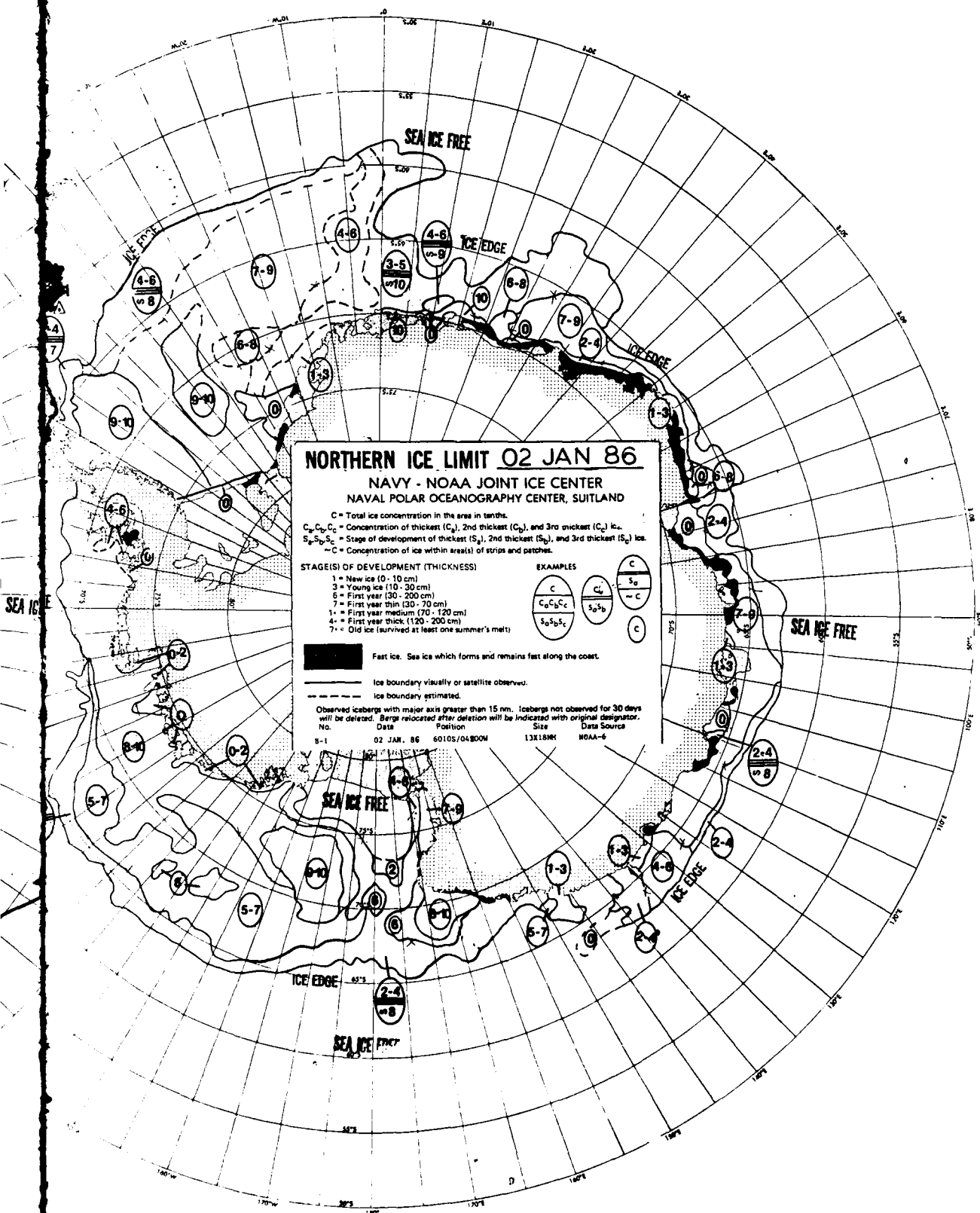
Ice boundary estimated

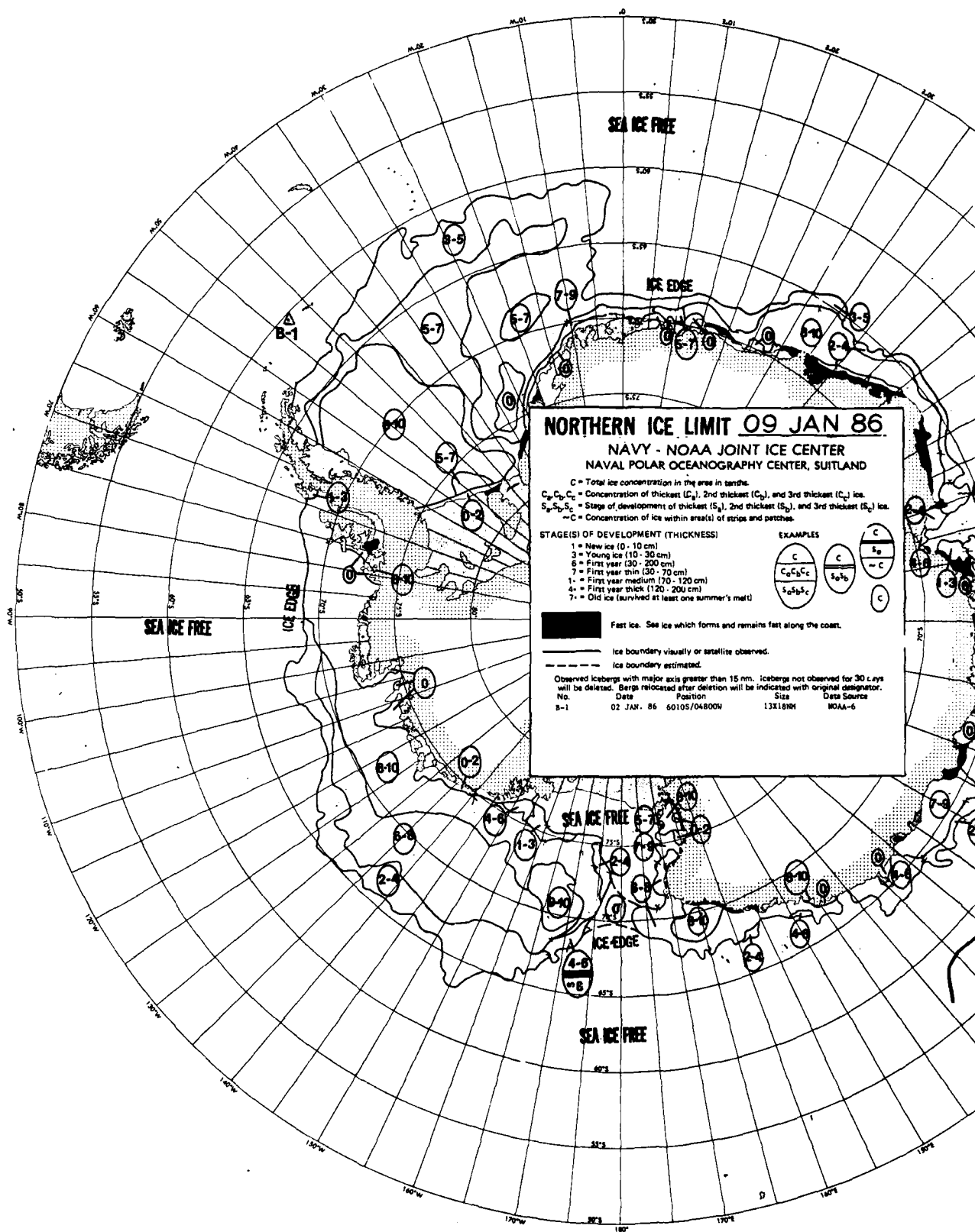
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

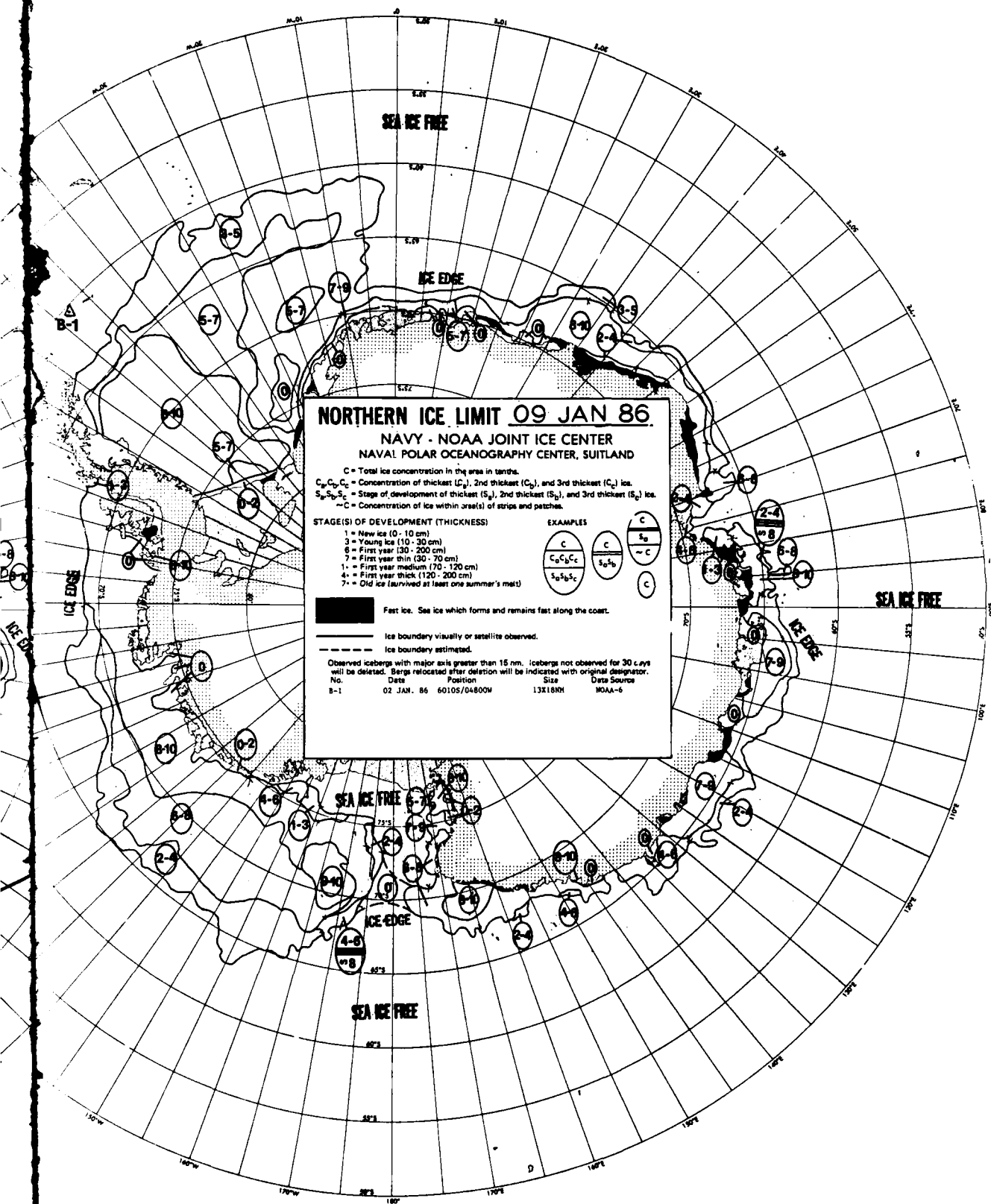
No.	Date	Position	Size	Data Source
B-1	17 DEC. 85	60305/04800W	13X18NM	NOAA-6

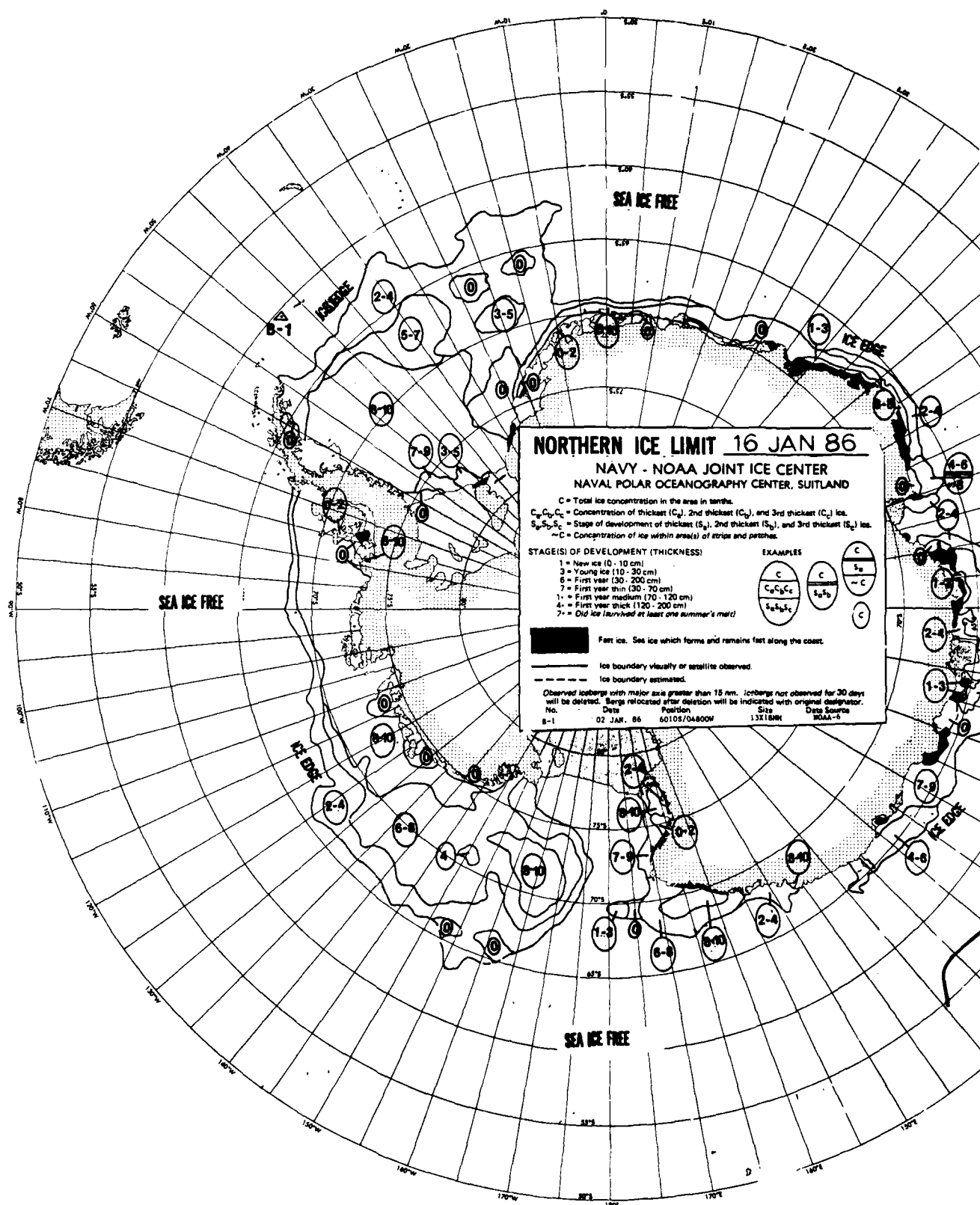


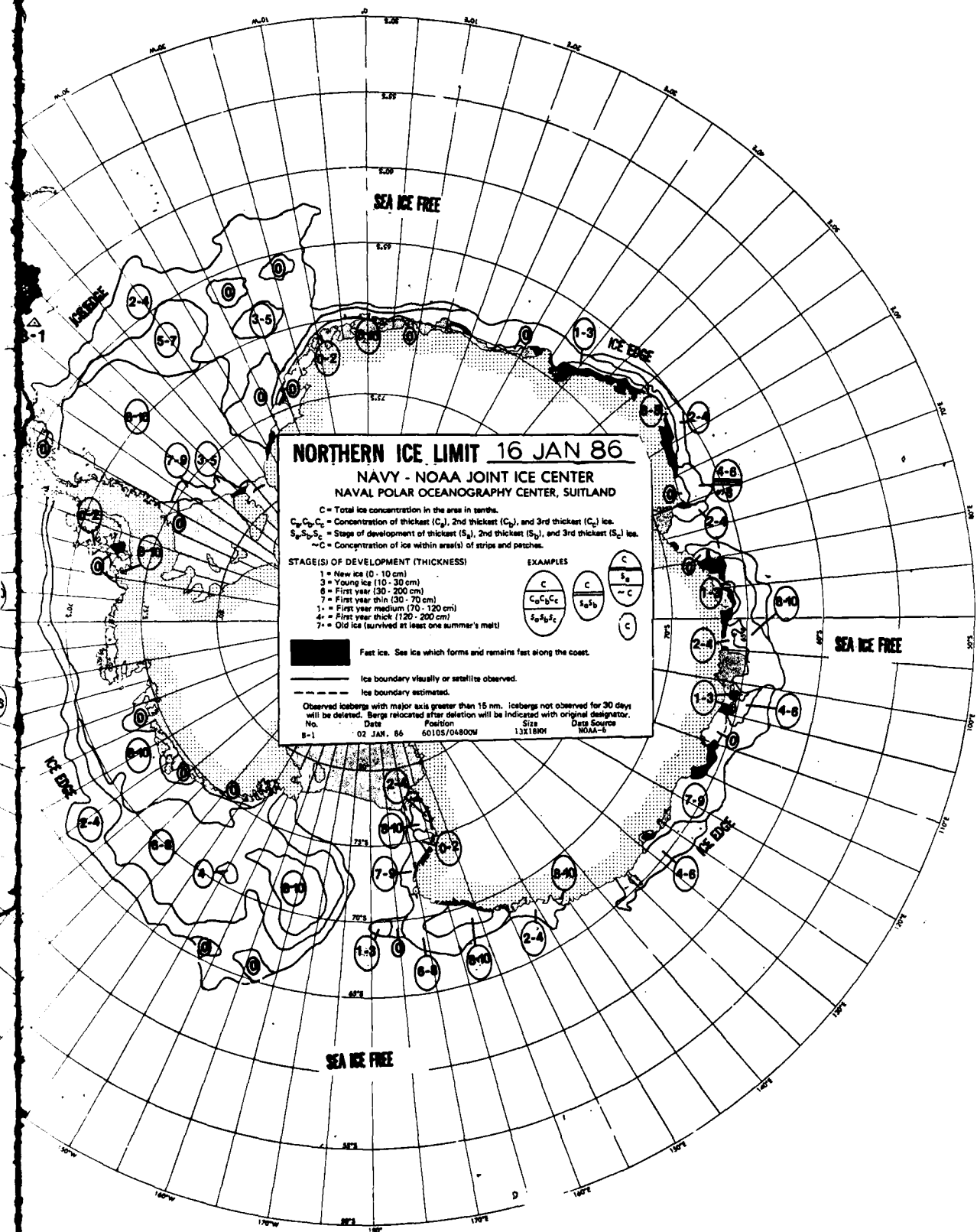


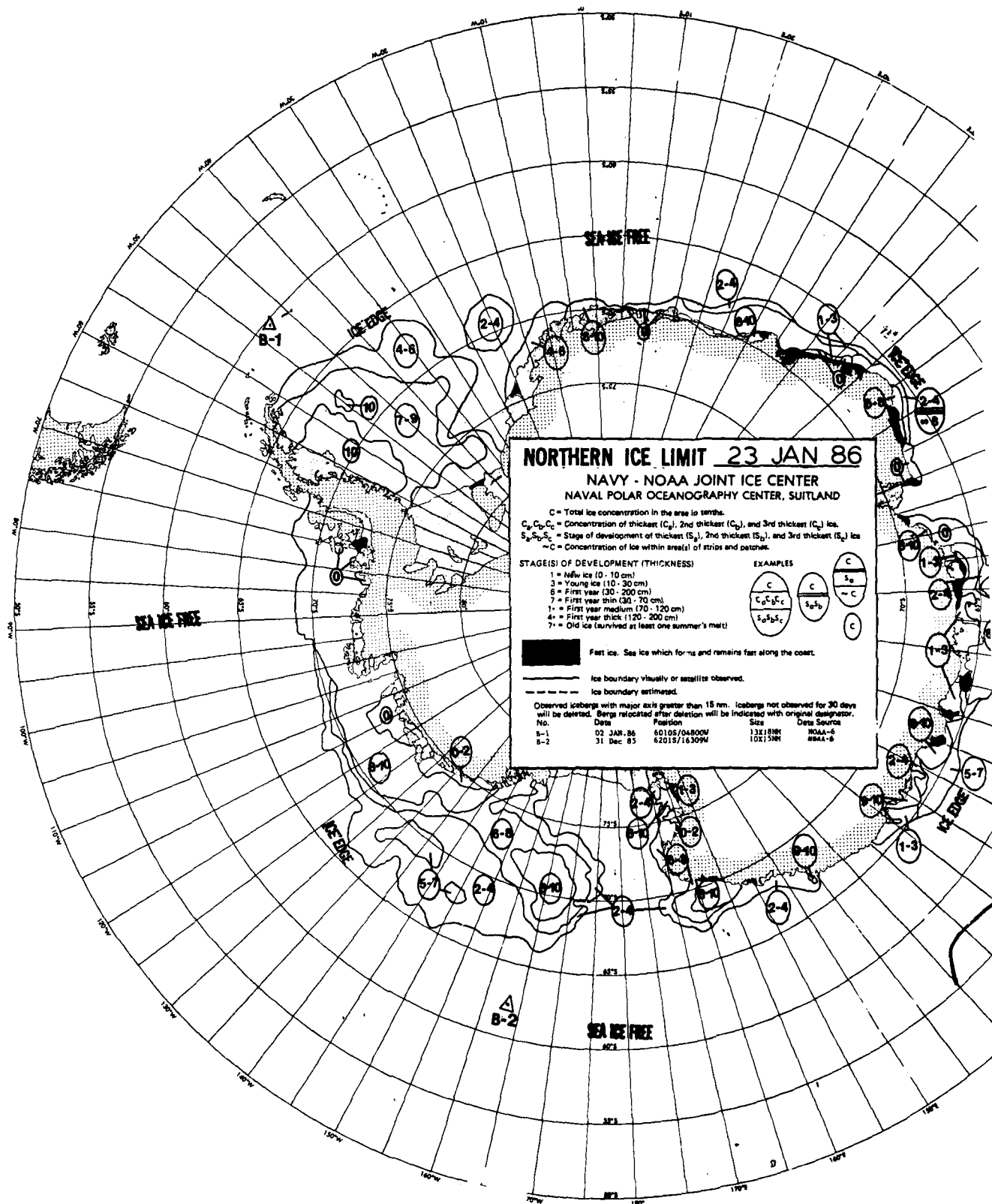


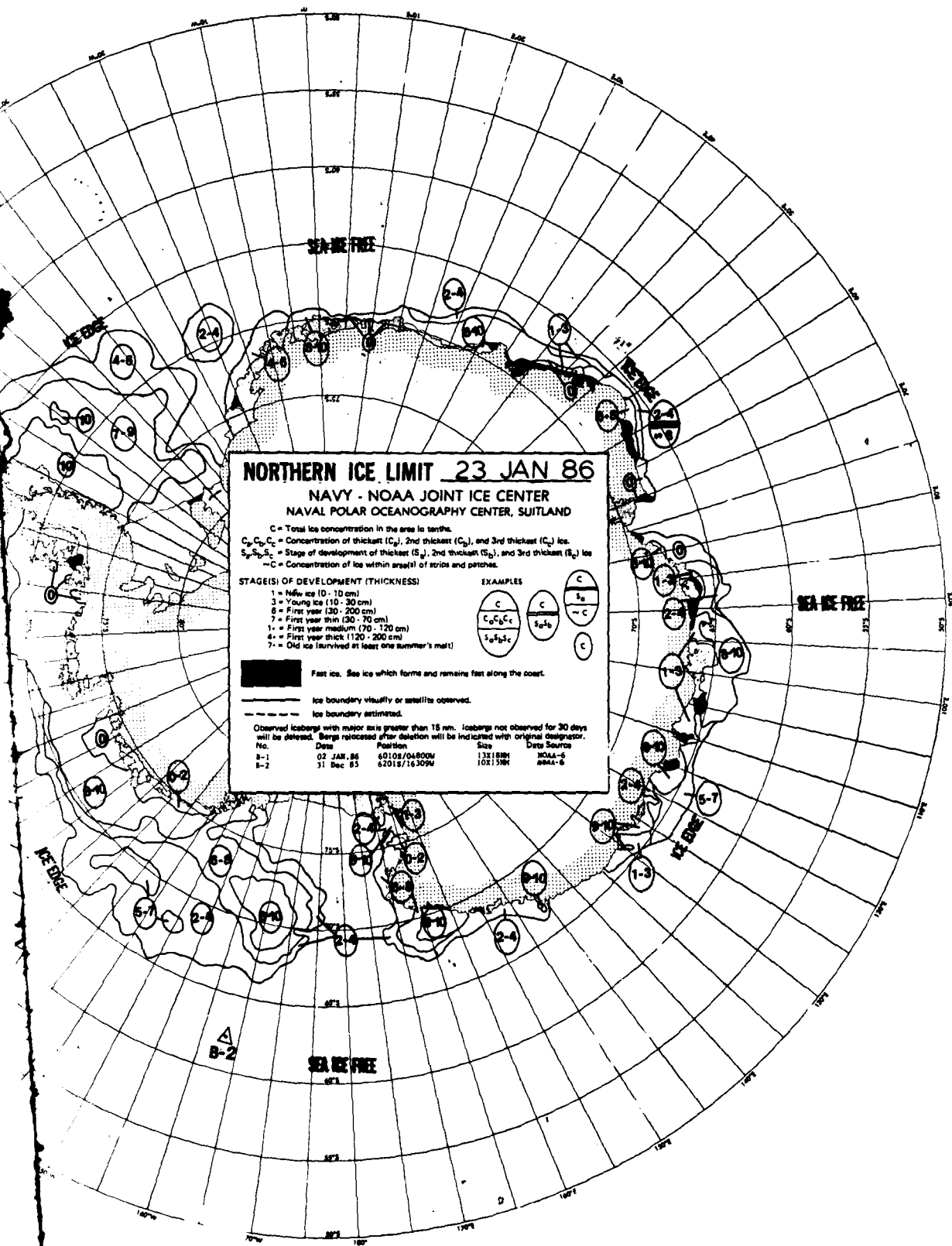


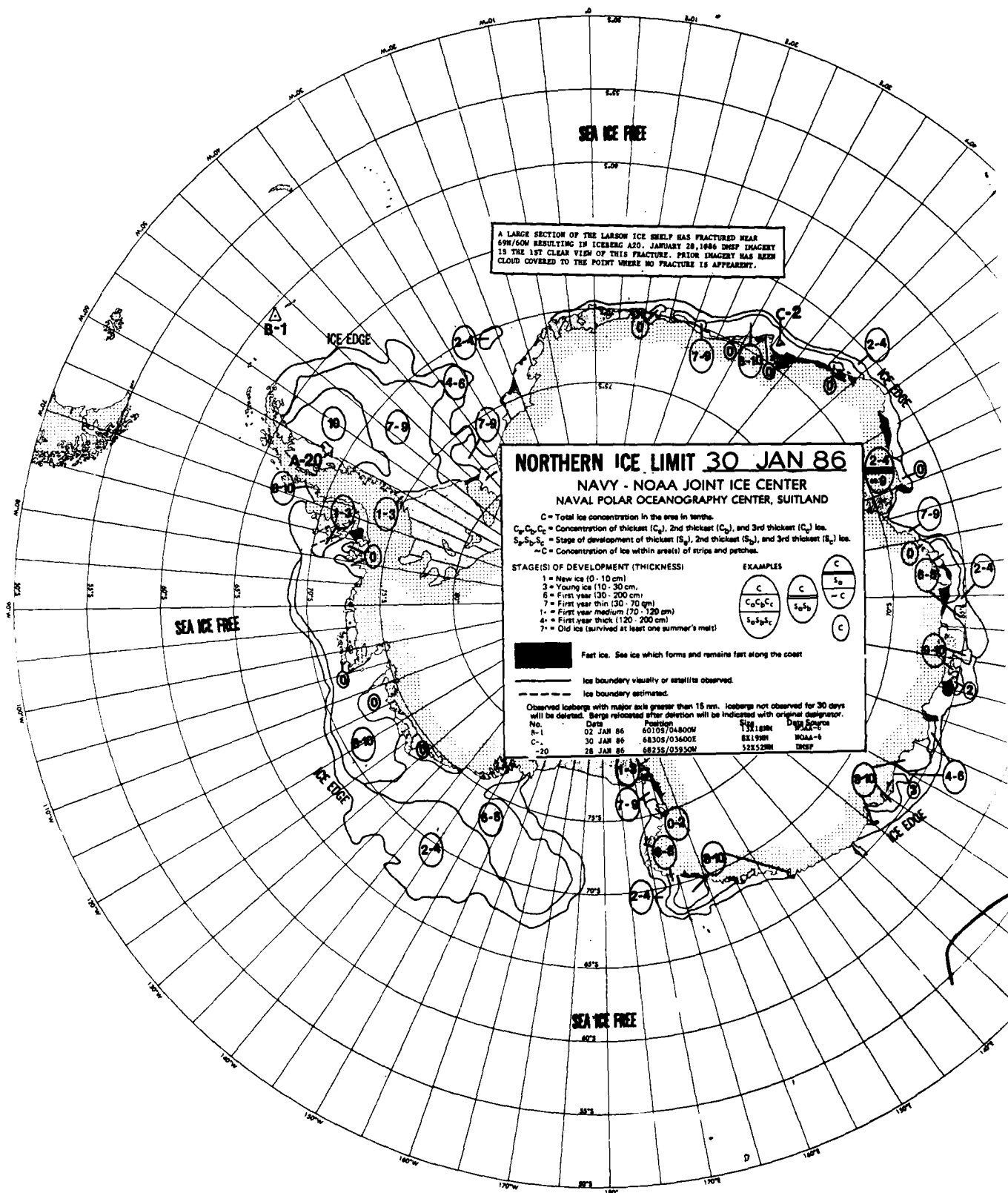


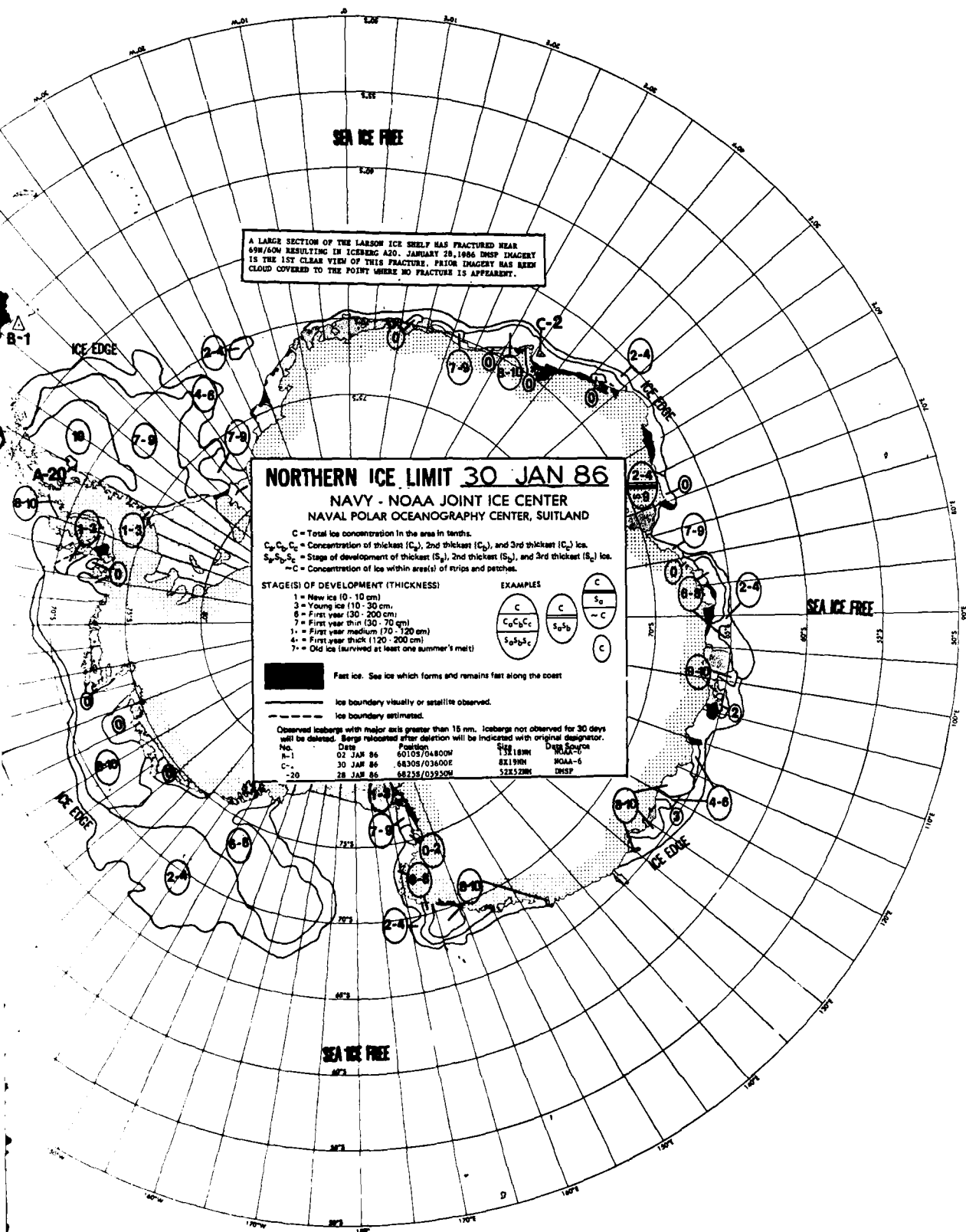


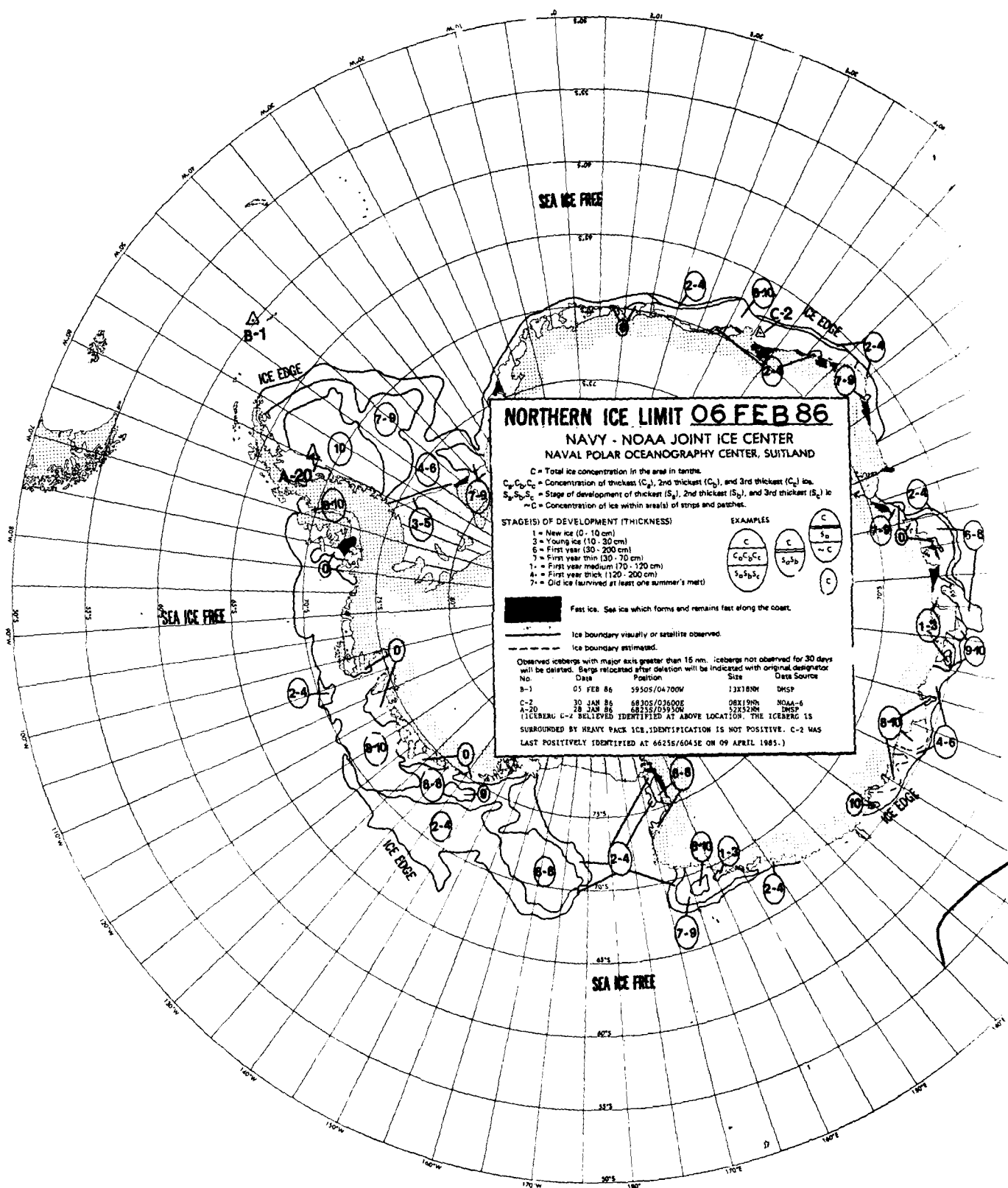


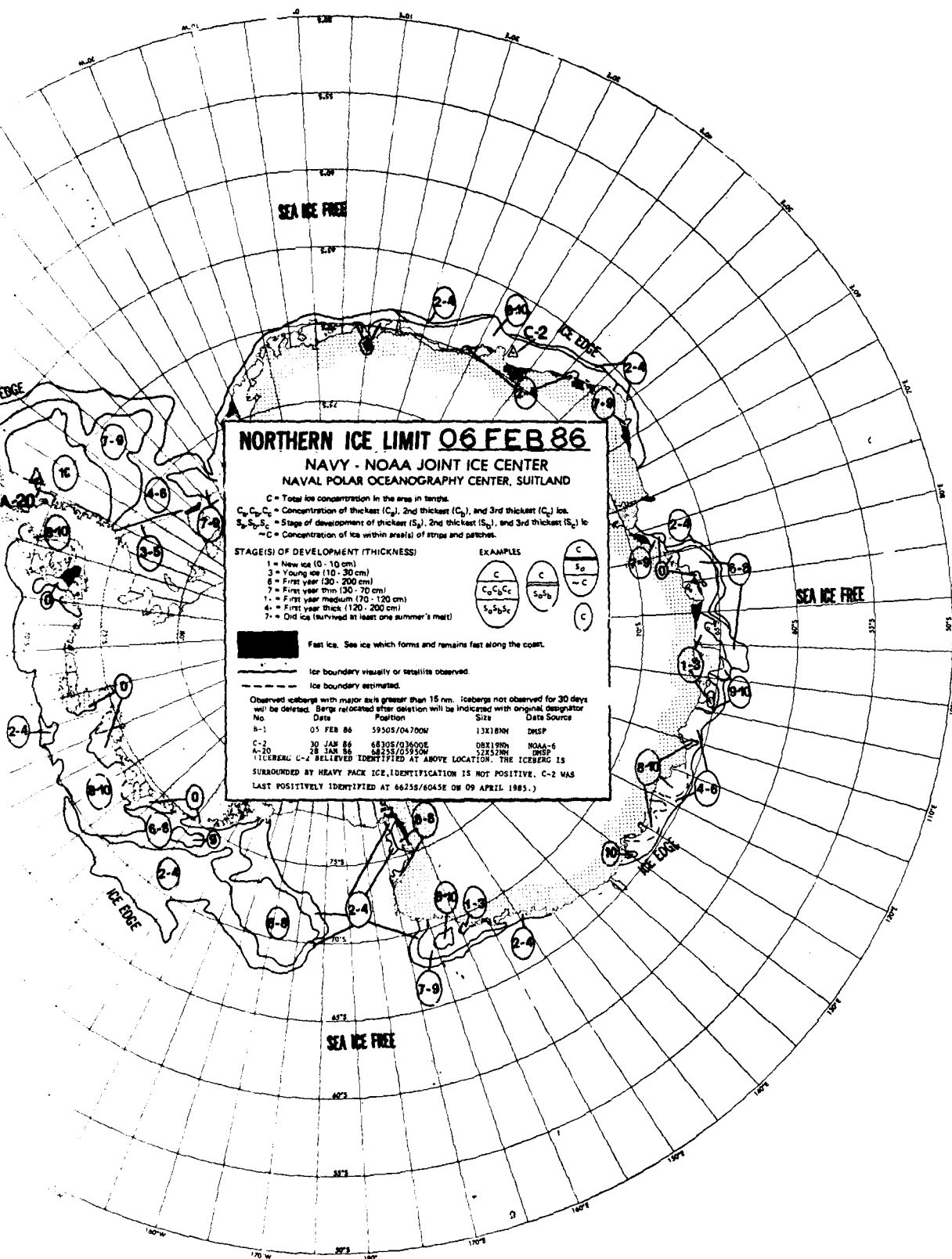


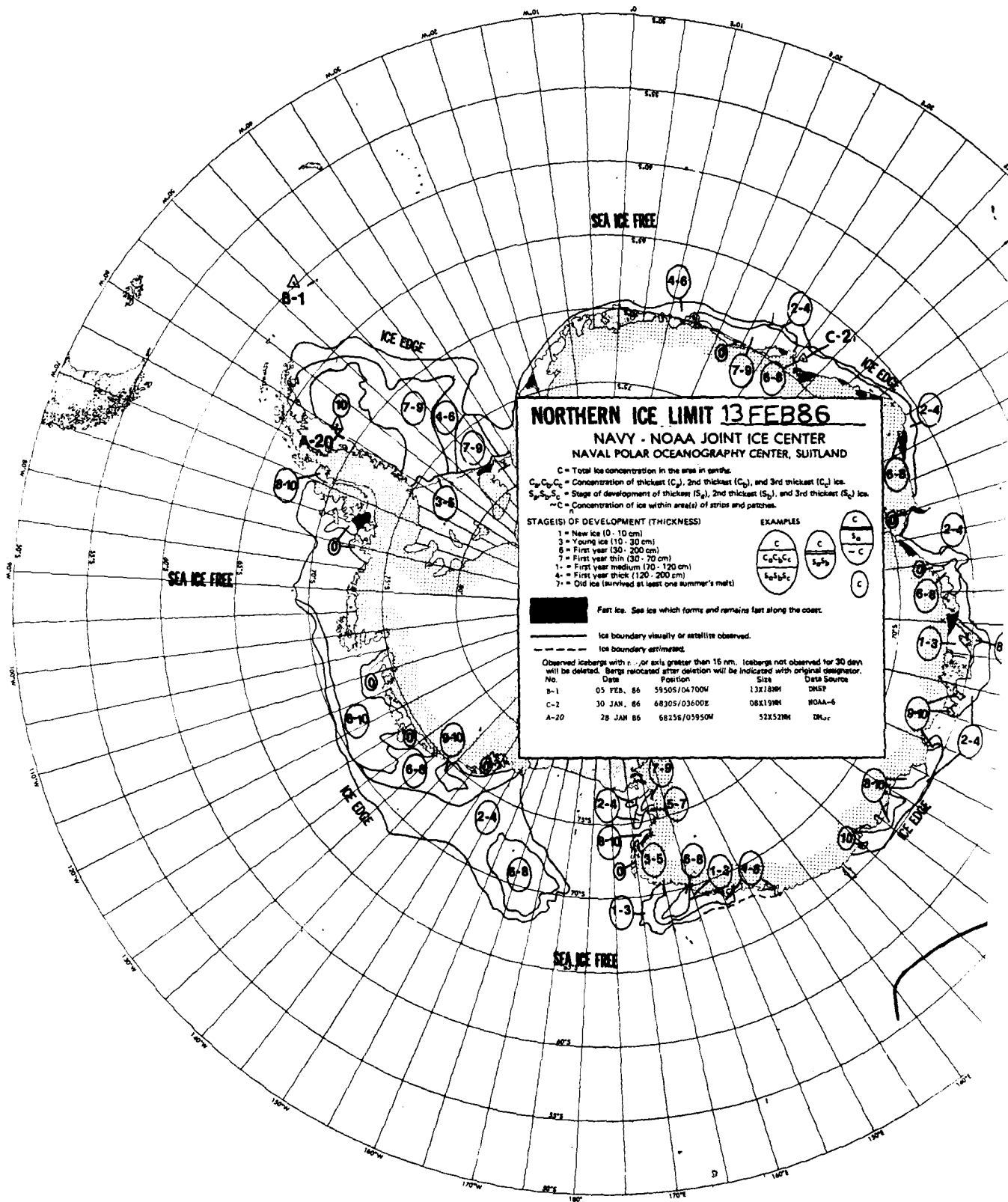












NORTHERN ICE LIMIT 13 FEB 86

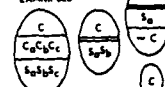
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in percent.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within area(s) of stripes and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1- = First year medium (70 - 120 cm)
- 4- = First year thick (120 - 200 cm)
- 7- = Old ice (survived at least one summer's melt)

EXAMPLES



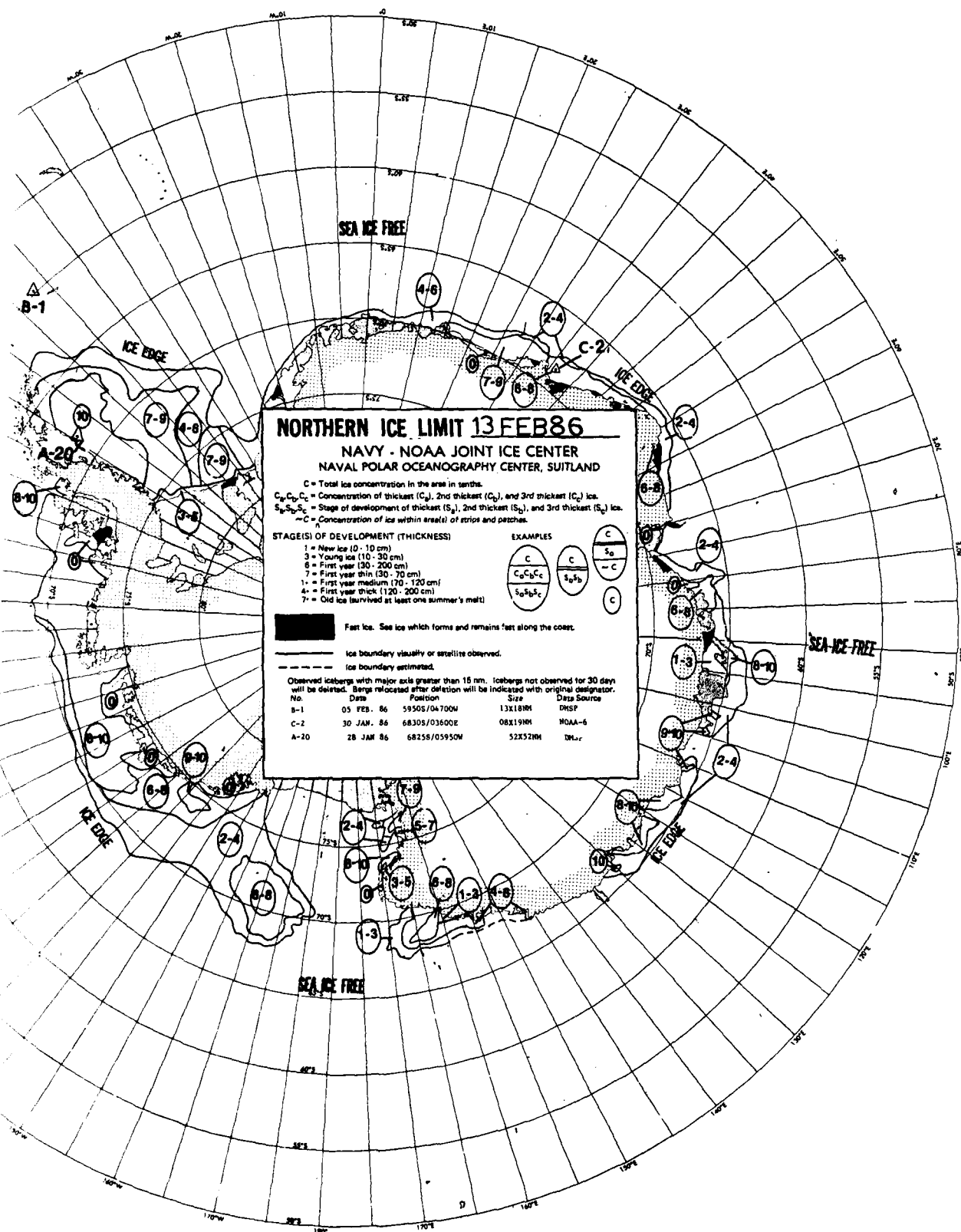
Fast ice. See ice which forms and remains fast along the coast.

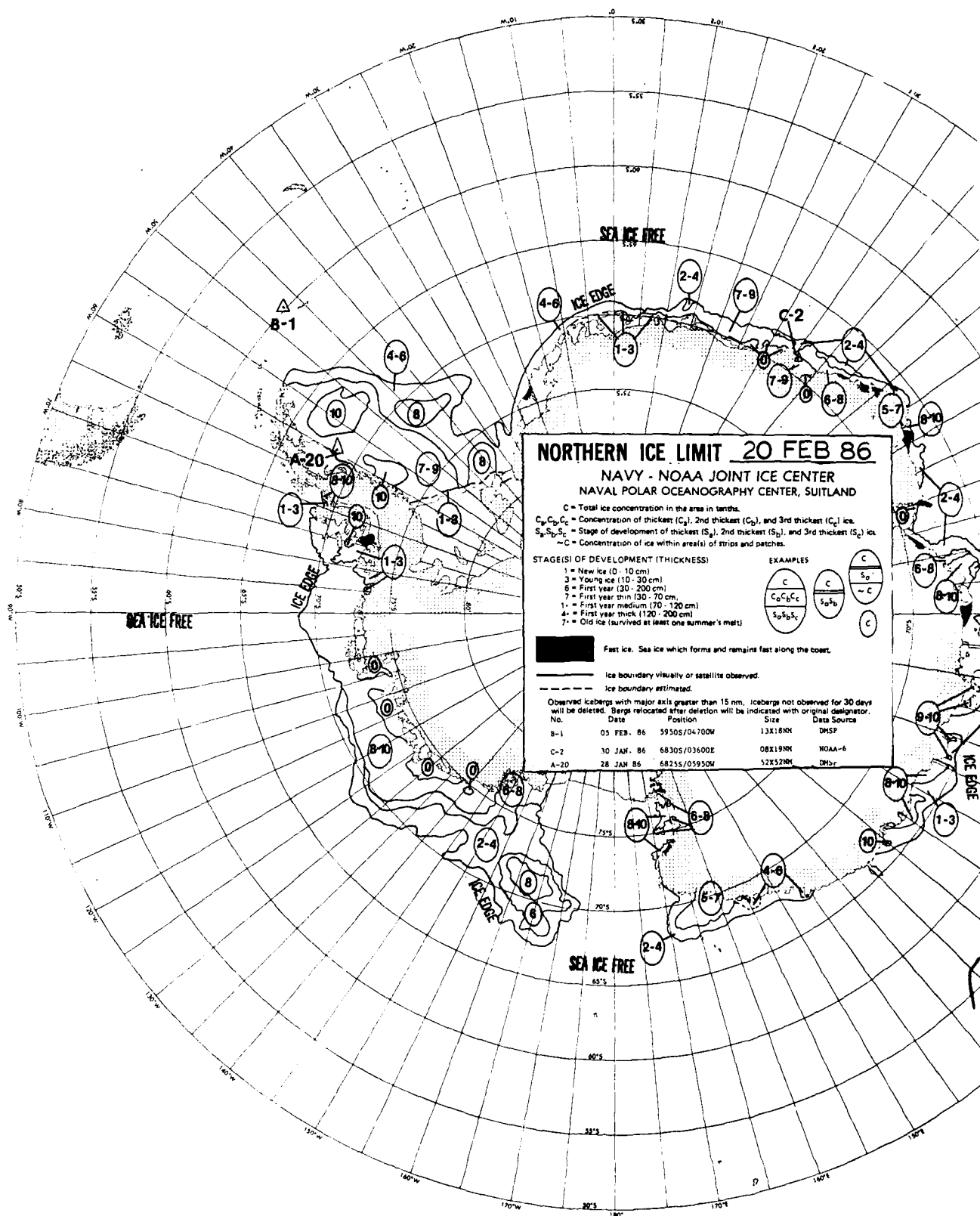
--- Ice boundary visually or satellite observed.

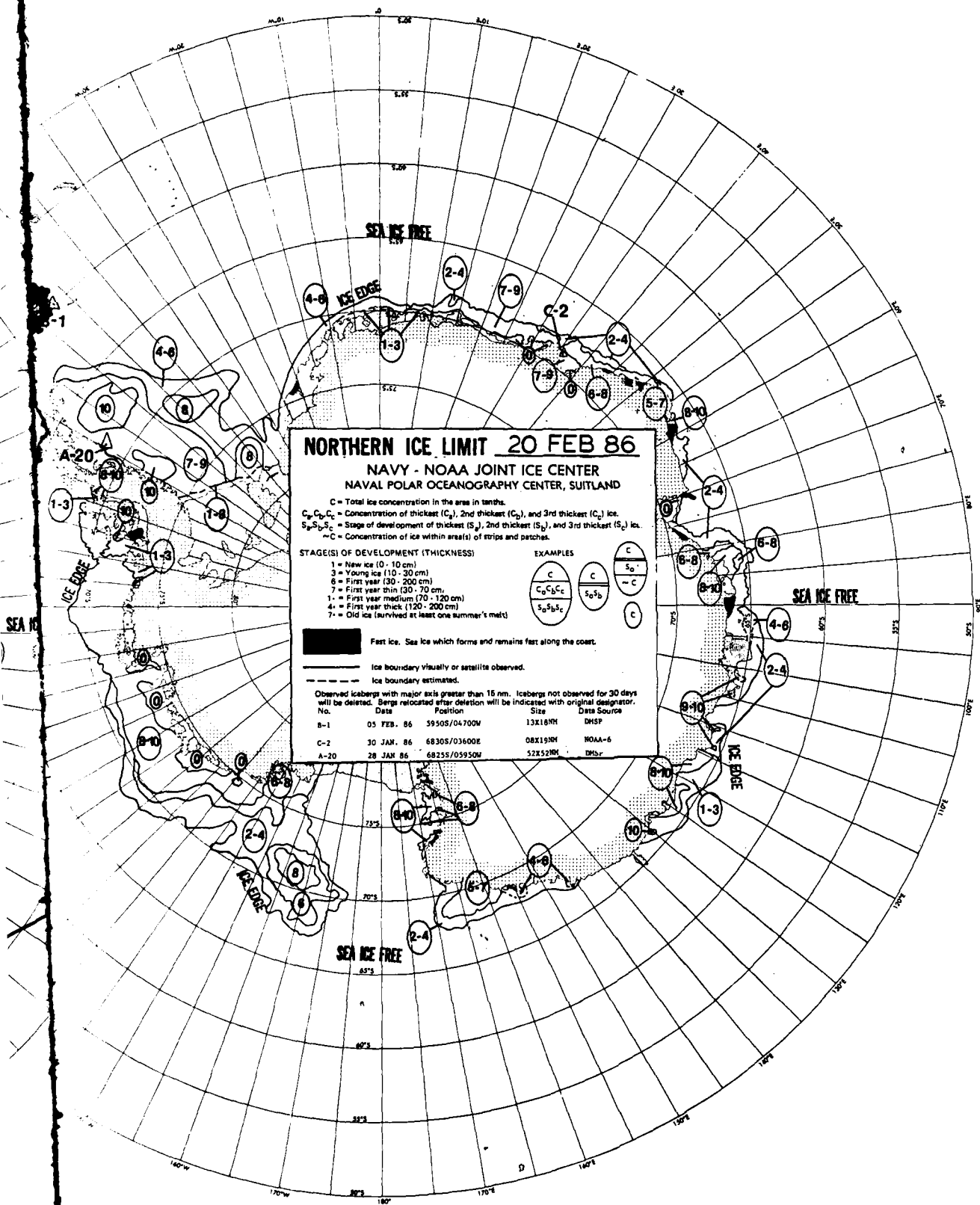
- - - - - Ice boundary estimated.

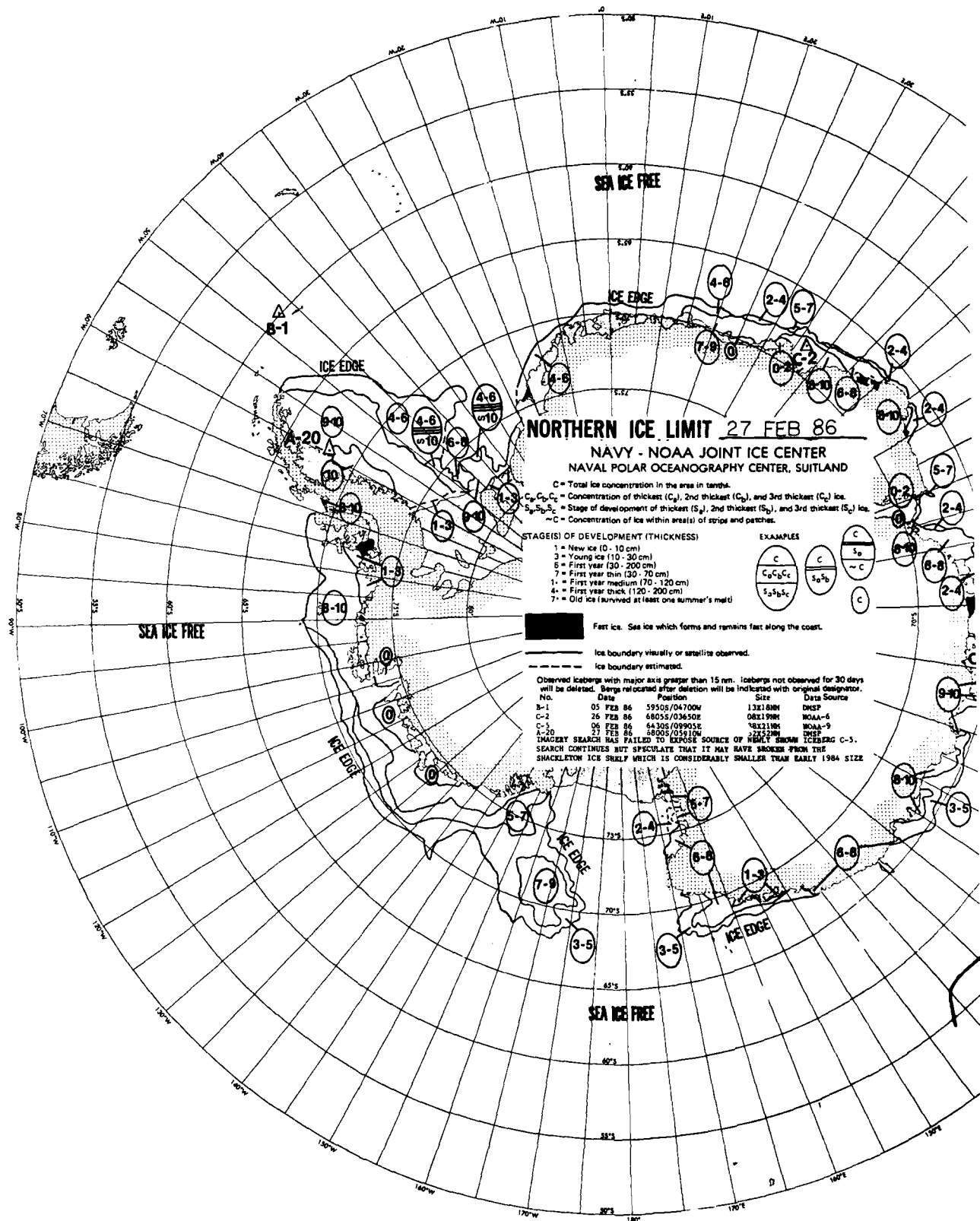
Observed icebergs with size or age greater than 15 m. Icebergs not observed for 30 days will be deleted. Berms relocated after deletion will be indicated with original designator.

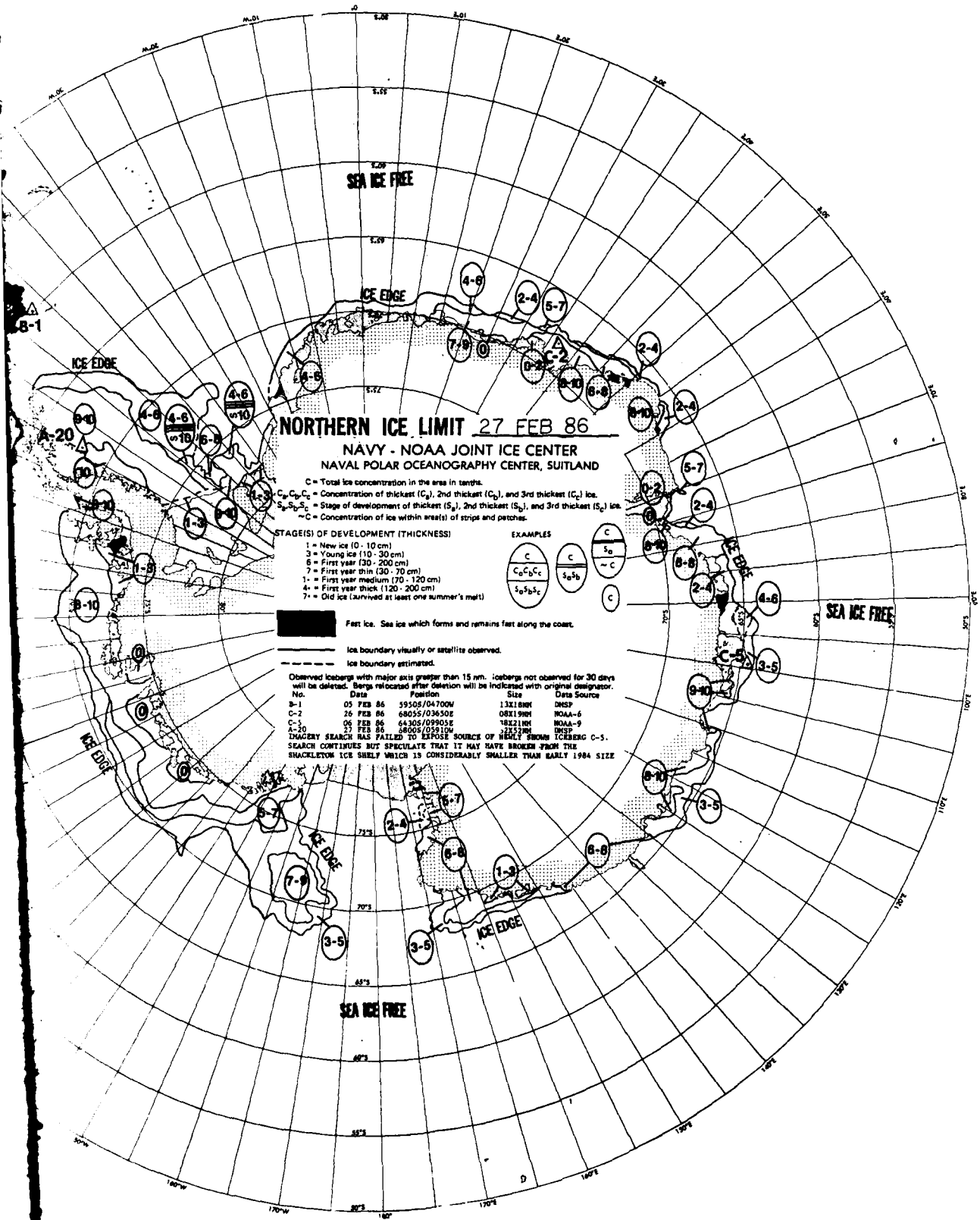
No.	Date	Position	Size	Data Source
B-1	05 FEB. 86	59505/04700W	13X18NM	DNSP
C-2	30 JAN. 86	68205/03600E	08X19NM	NOAA-6
A-20	28 JAN 86	68256/05950W	52X52NM	DMSC

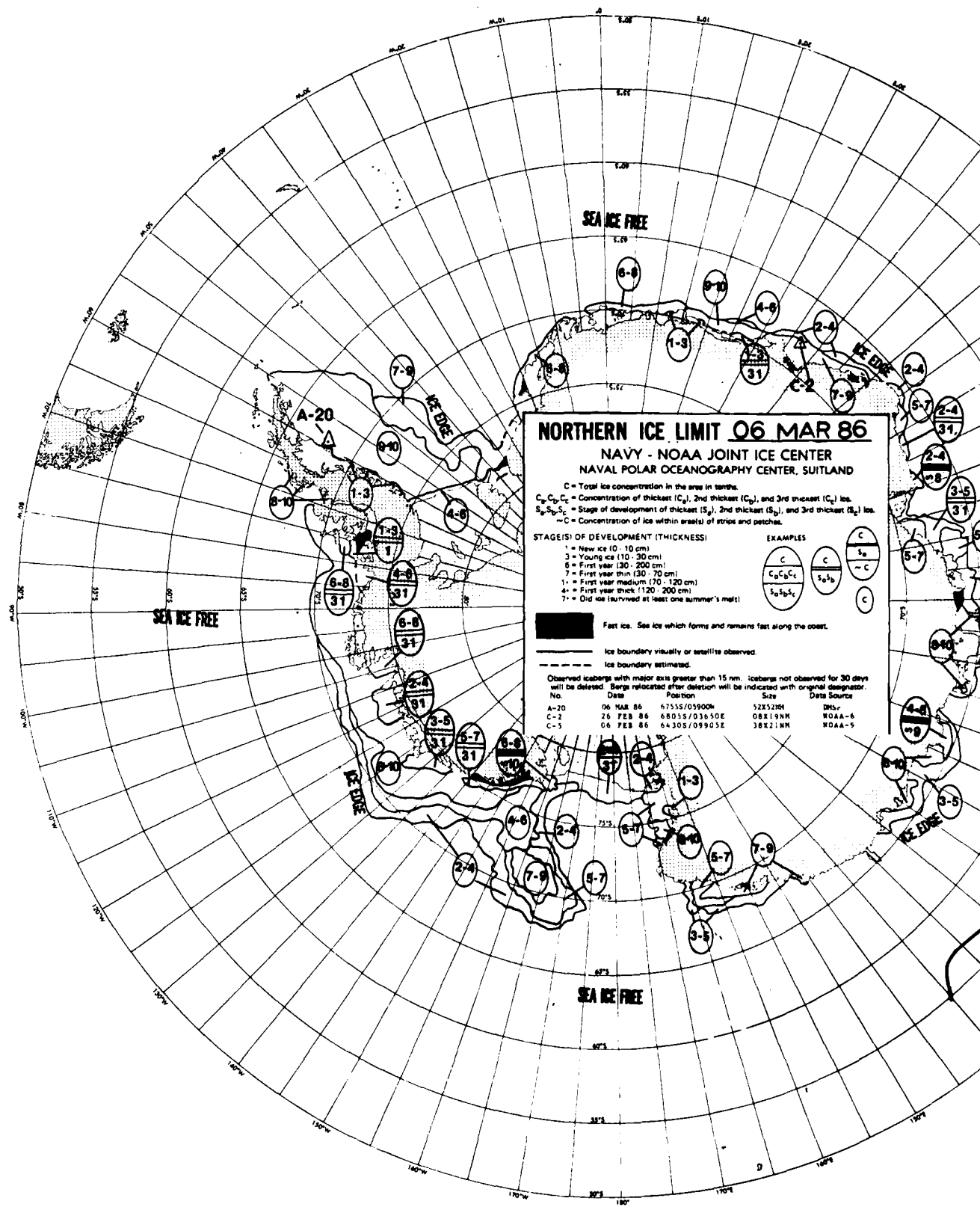


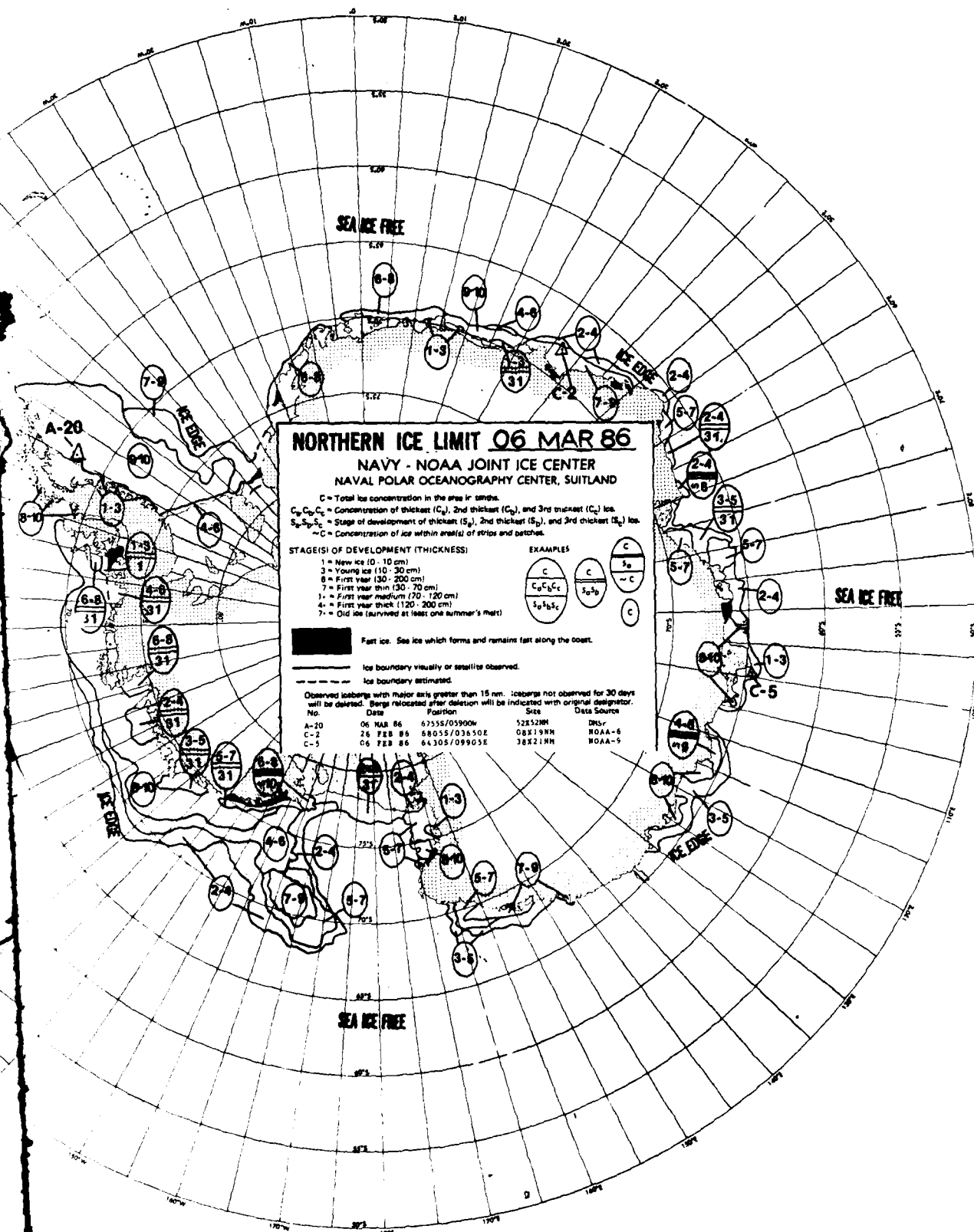


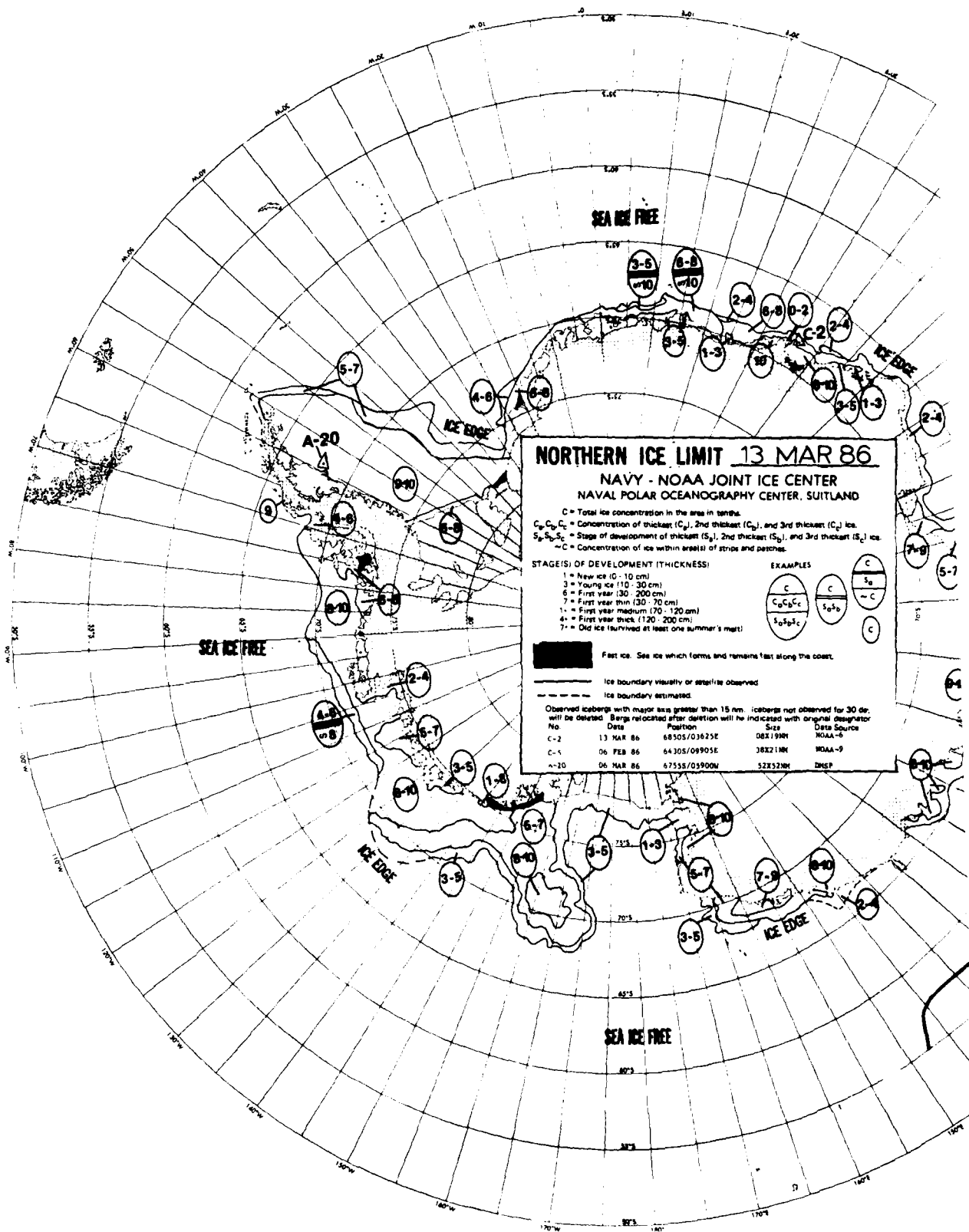


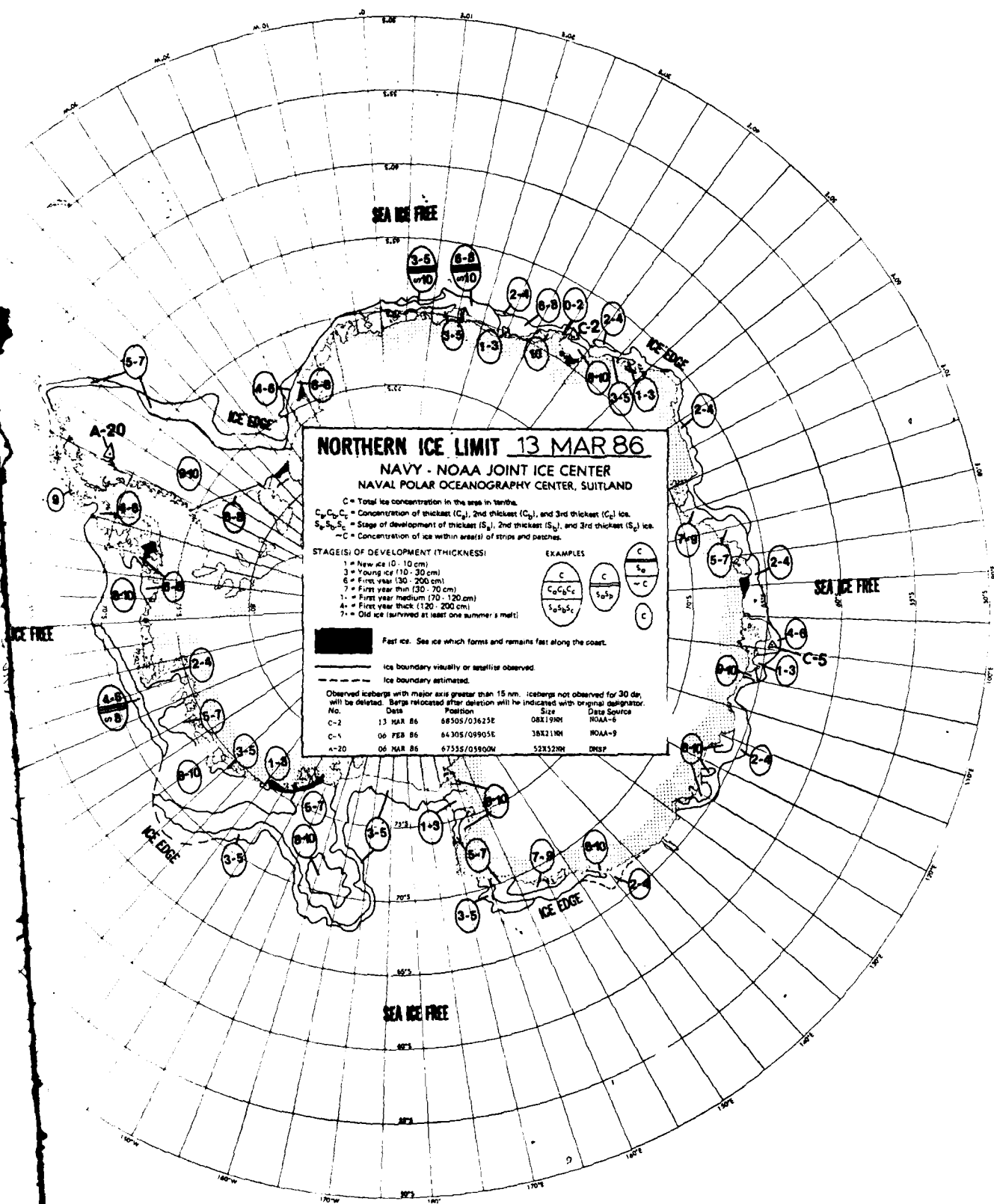


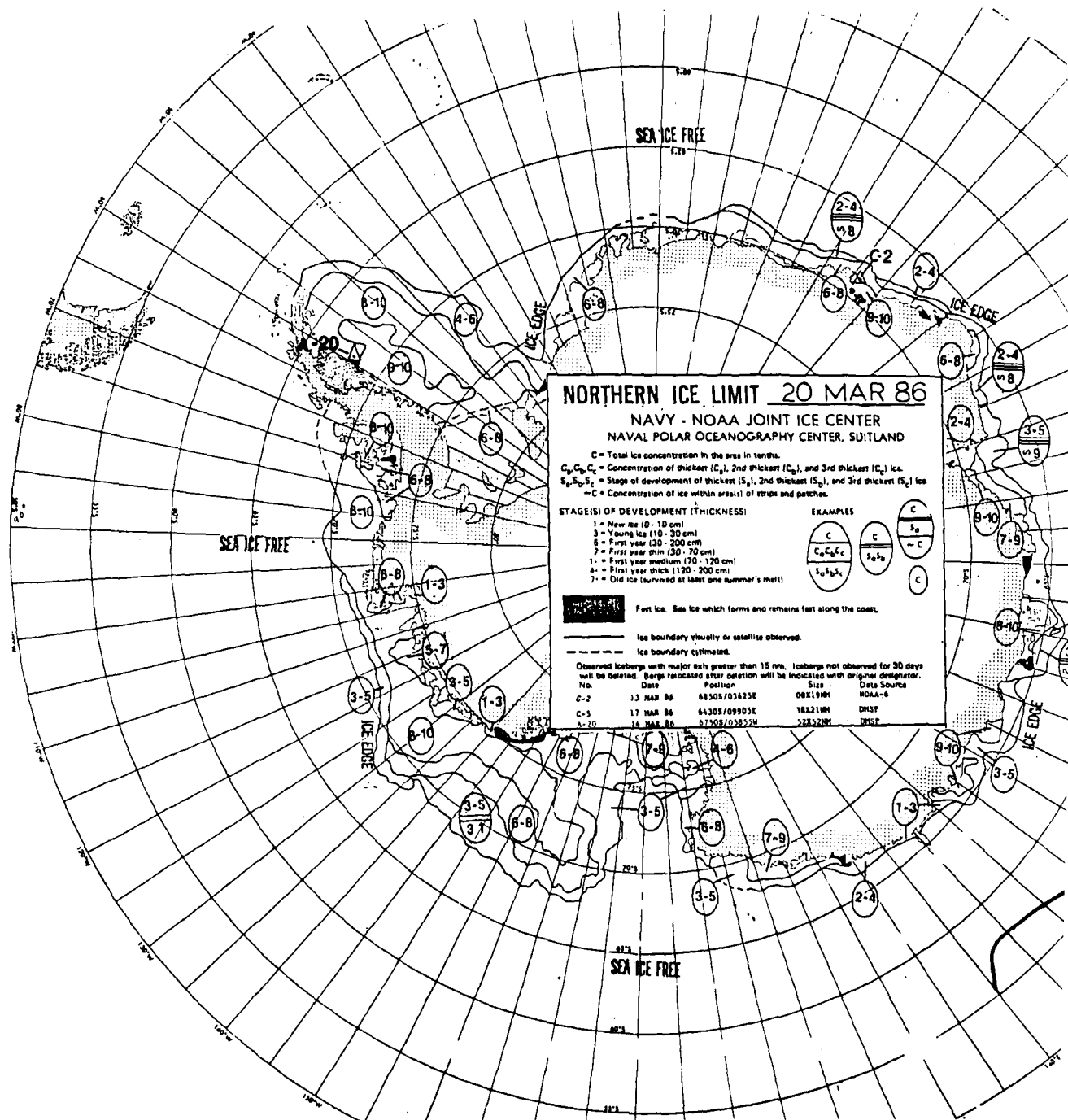


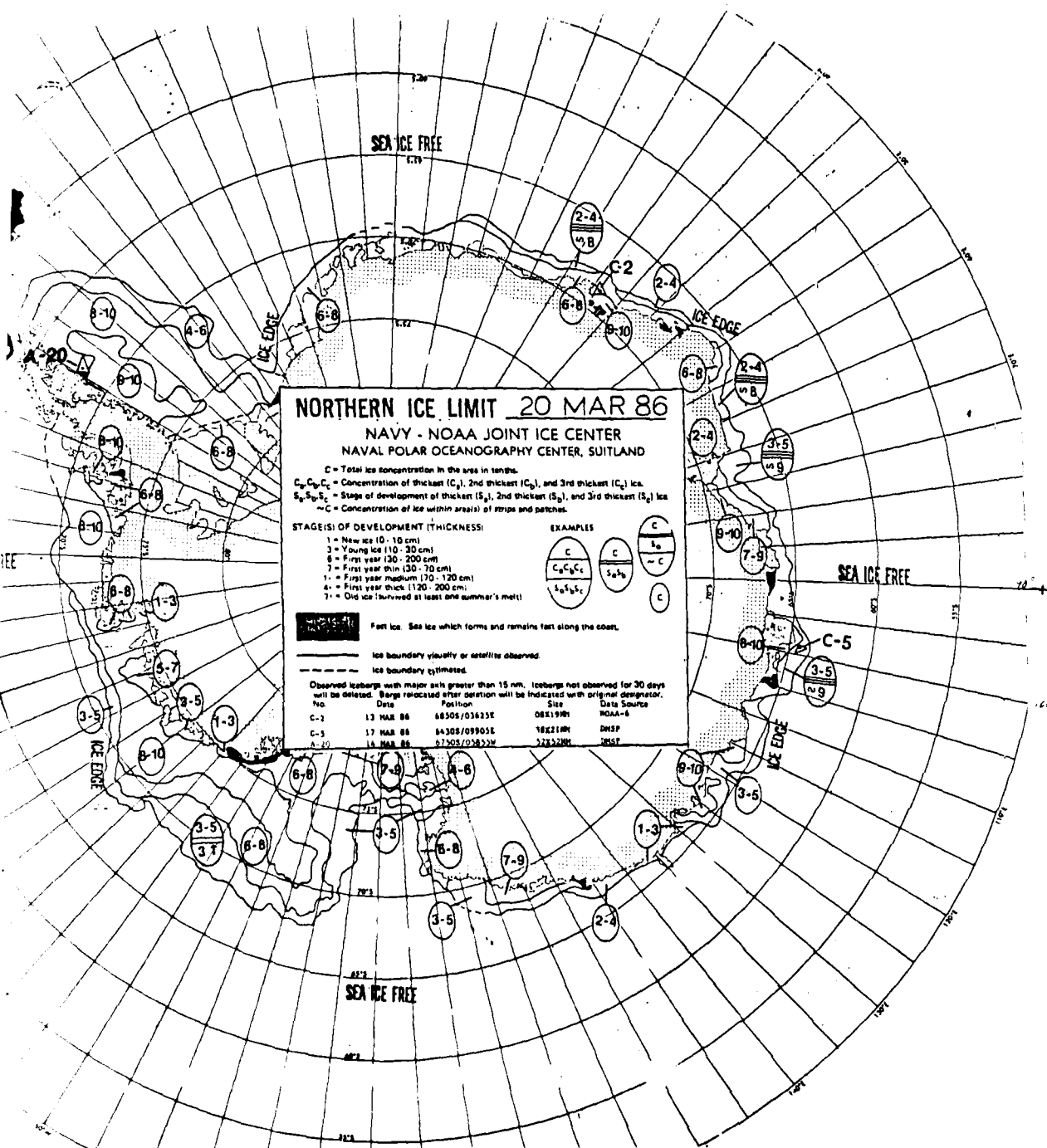


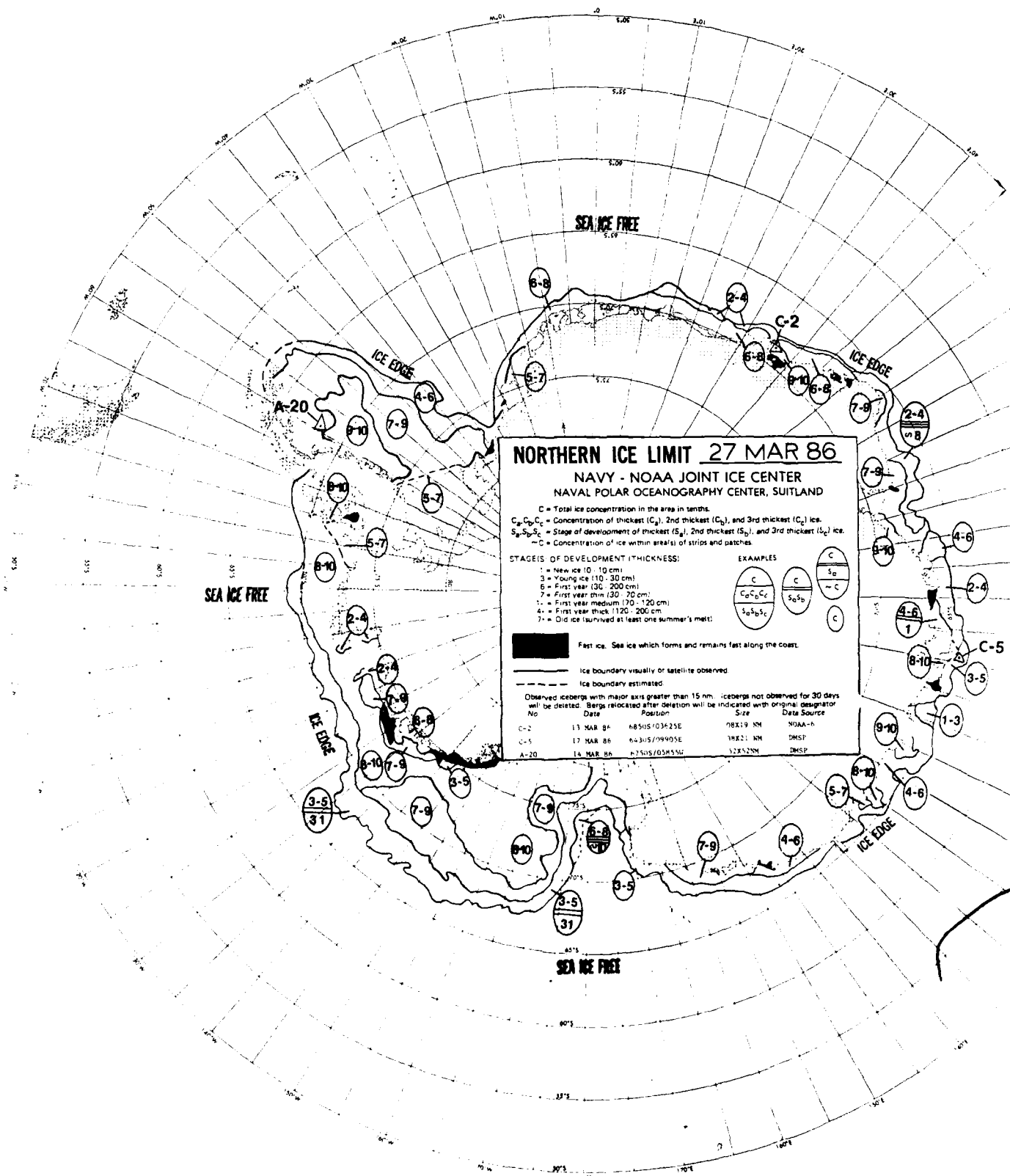


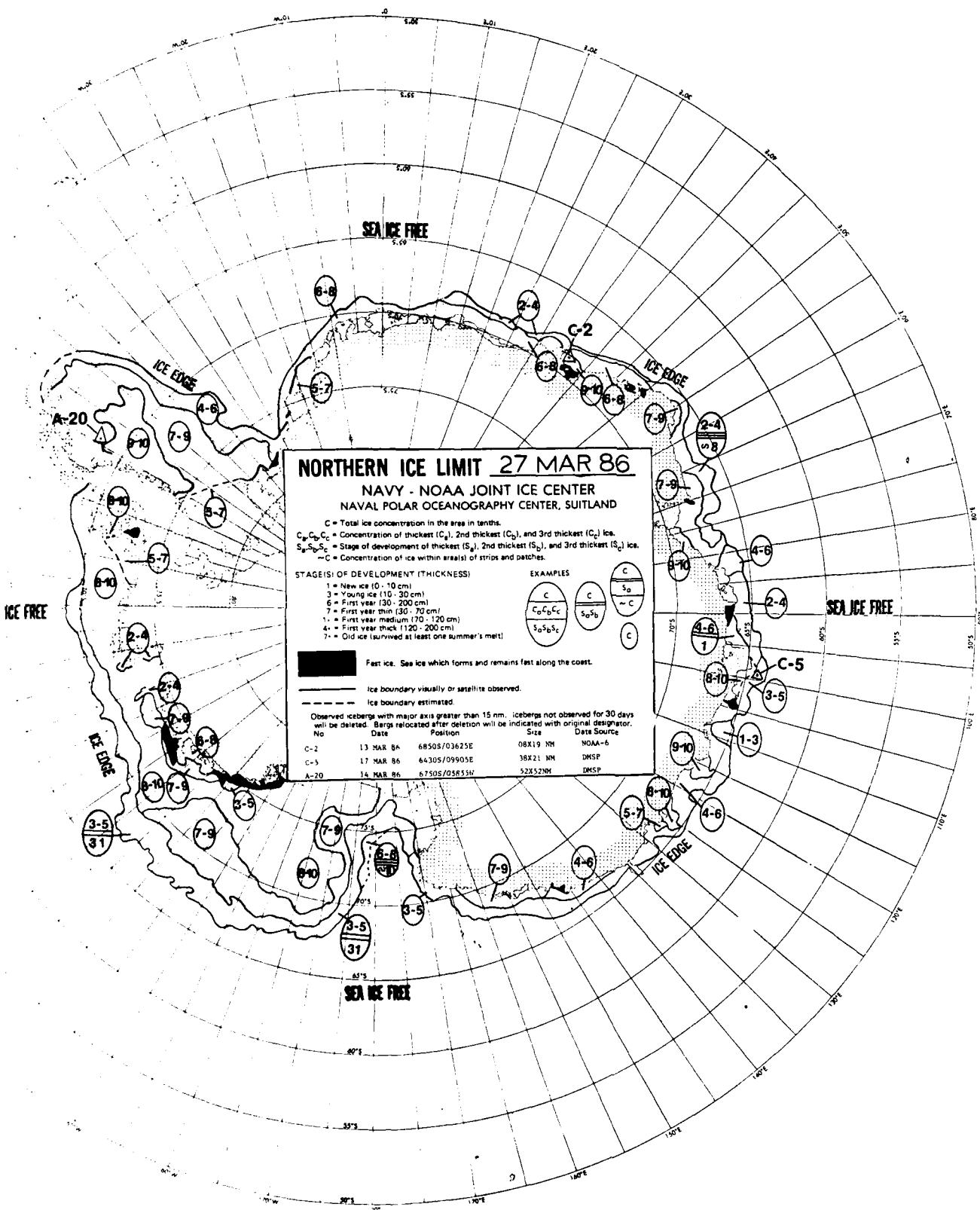


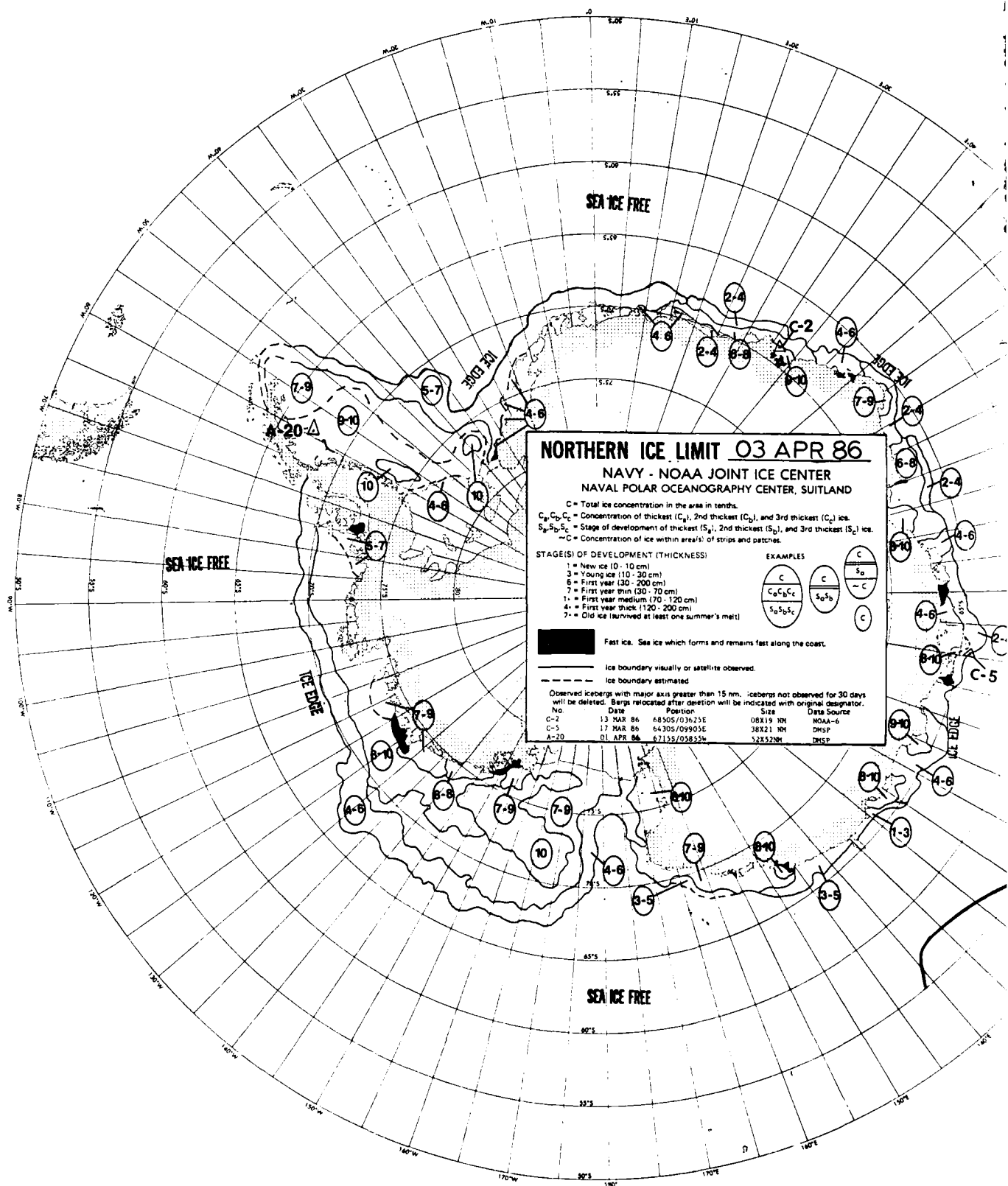


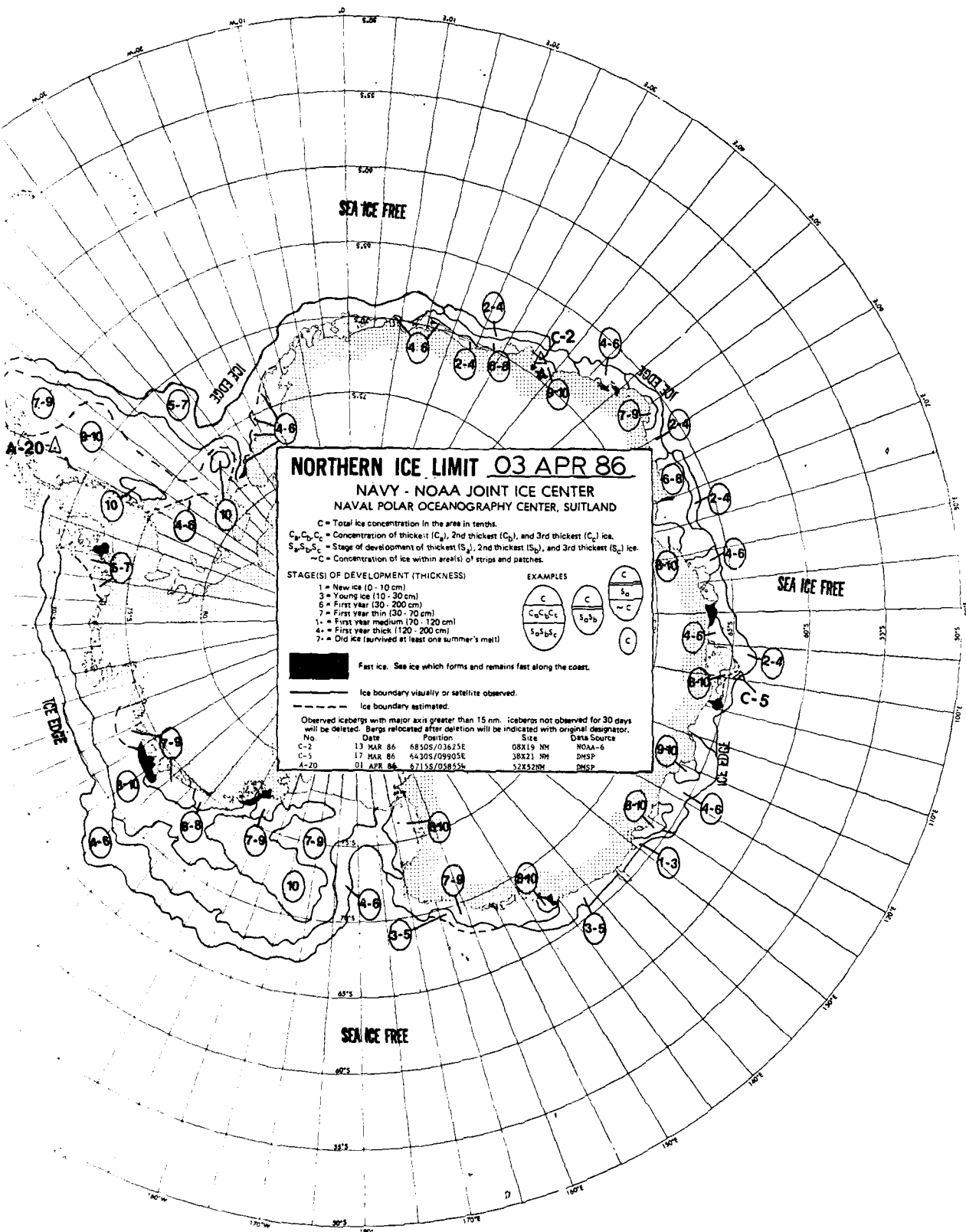


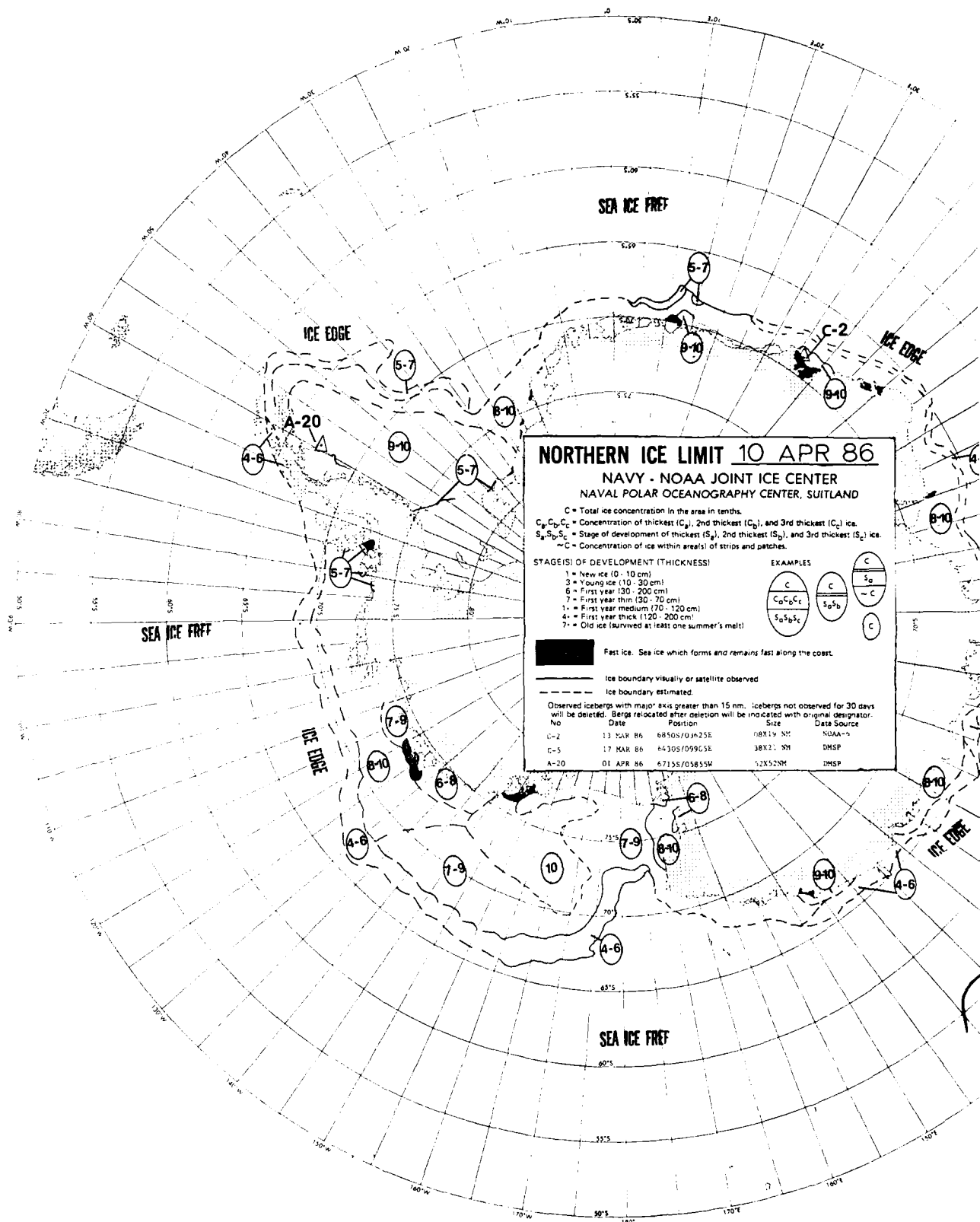


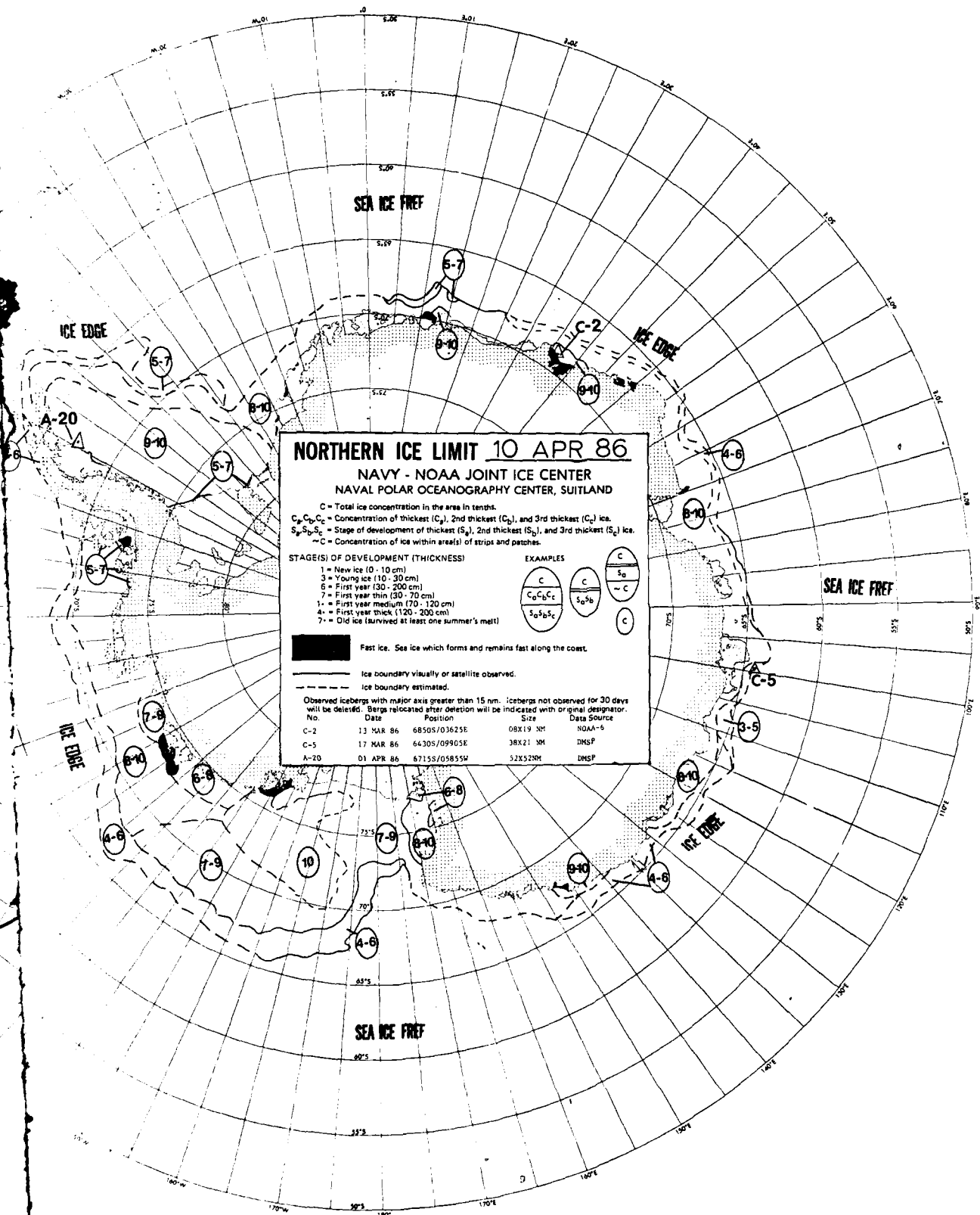












NORTHERN ICE LIMIT 10 APR 86
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
 -C = Concentration of ice within areas of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

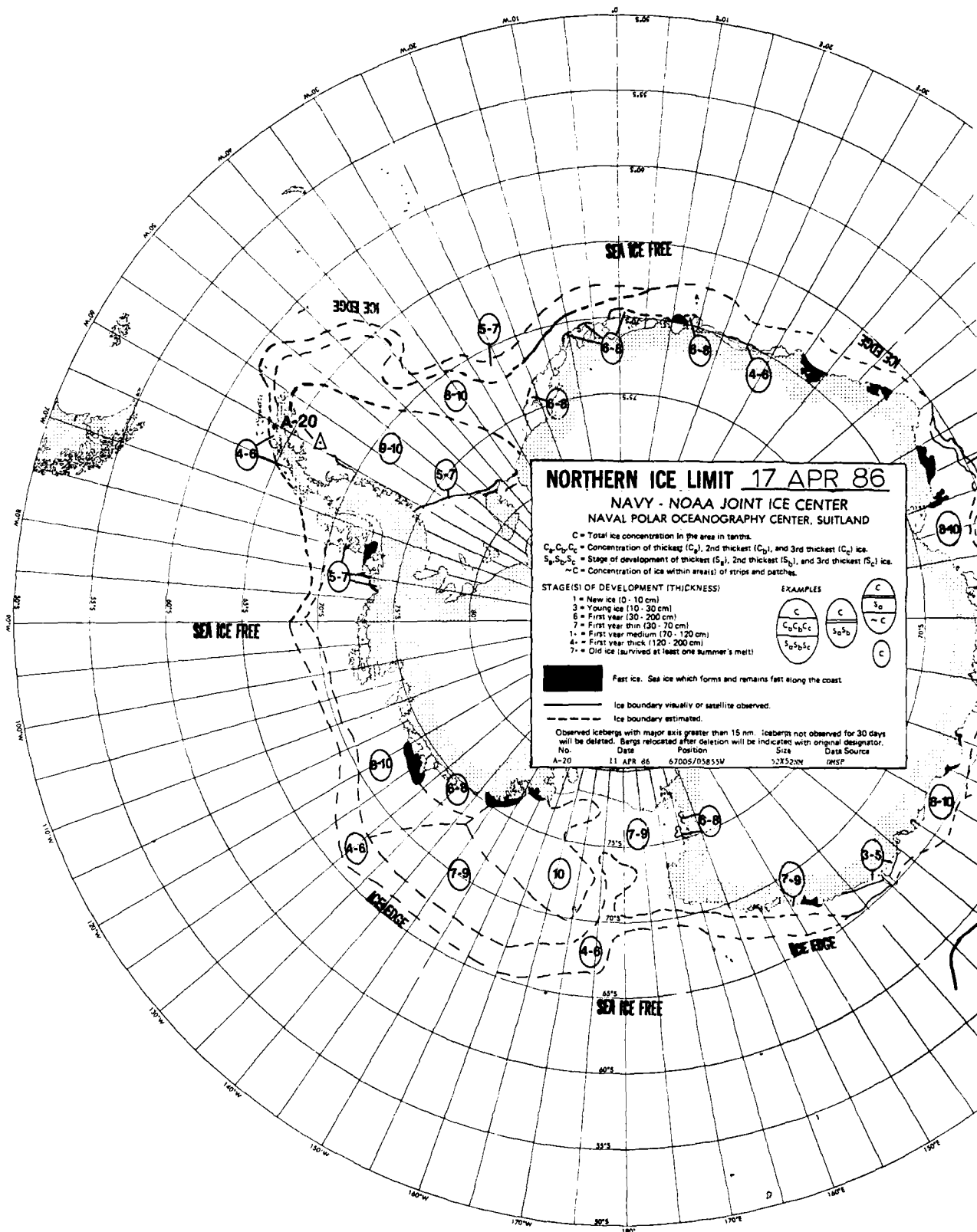
1 = New ice (10 - 10 cm)
 3 = Young ice (10 - 30 cm)
 6 = First year (30 - 200 cm)
 7 = First year thin (30 - 70 cm)
 1 = First year medium (70 - 120 cm)
 4 = First year thick (120 - 200 cm)
 7 = Old ice (survived at least one summer's melt)

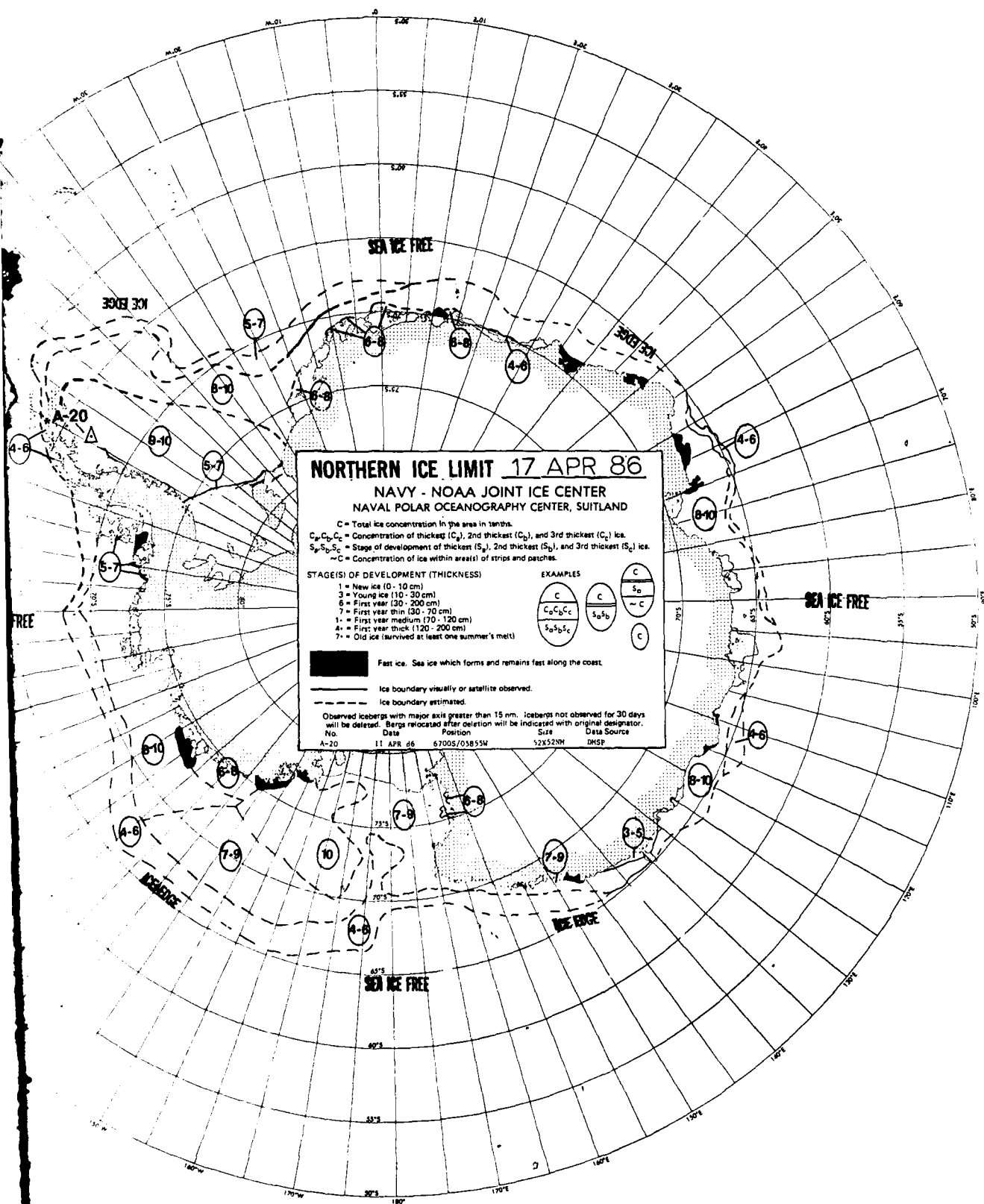
EXAMPLES

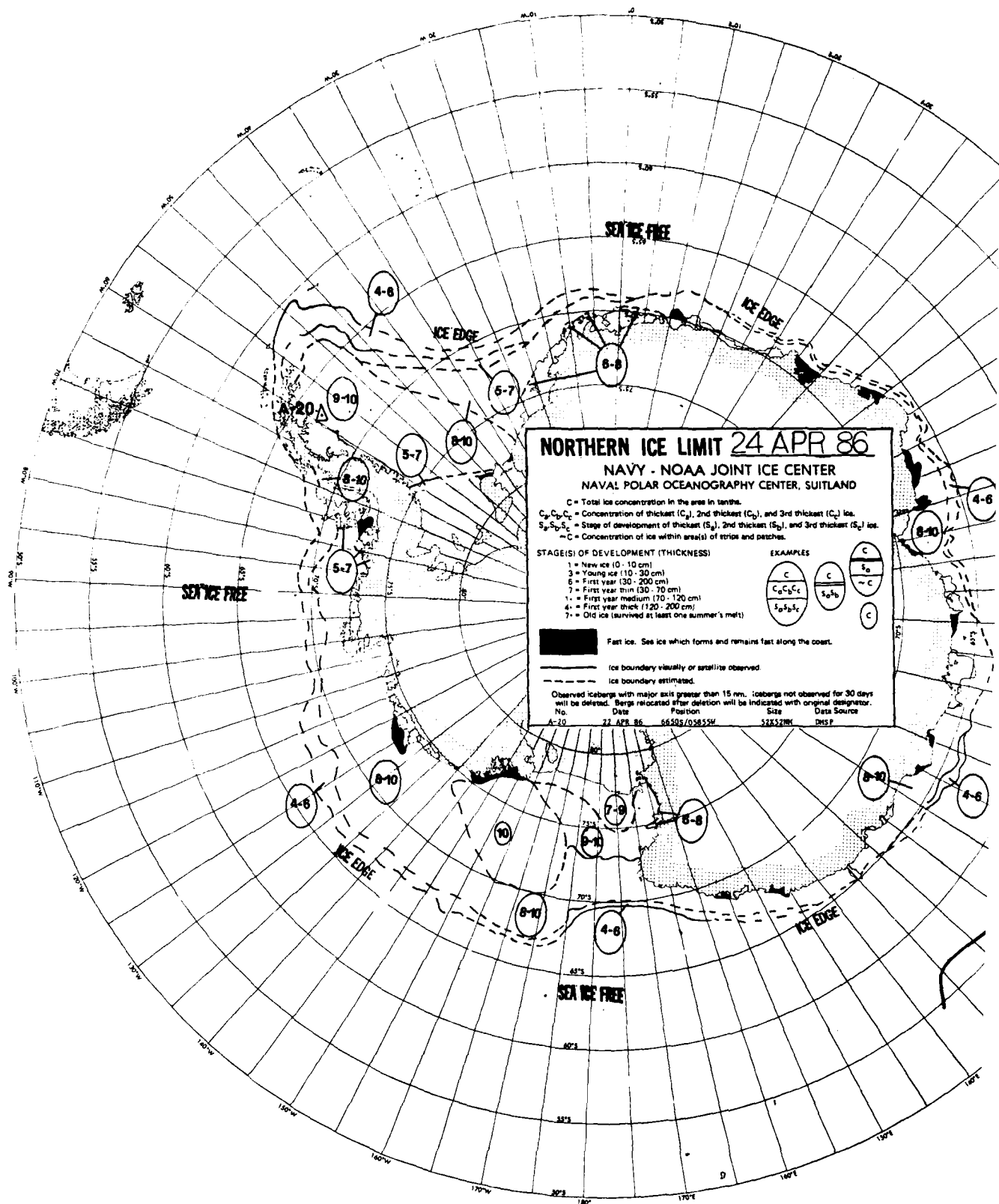
$\frac{C}{C_1 C_2 C_3}$ $\frac{C}{S_1 S_2 S_3}$ $\frac{C}{S_1 C_2 S_3}$ $\frac{C}{S_1 C_2 C_3}$ $\frac{C}{S_1 S_2 C_3}$ $\frac{C}{S_1 C_2 C_3}$ $\frac{C}{S_1 C_2 C_3}$ $\frac{C}{S_1 C_2 C_3}$ $\frac{C}{S_1 C_2 C_3}$ $\frac{C}{S_1 C_2 C_3}$

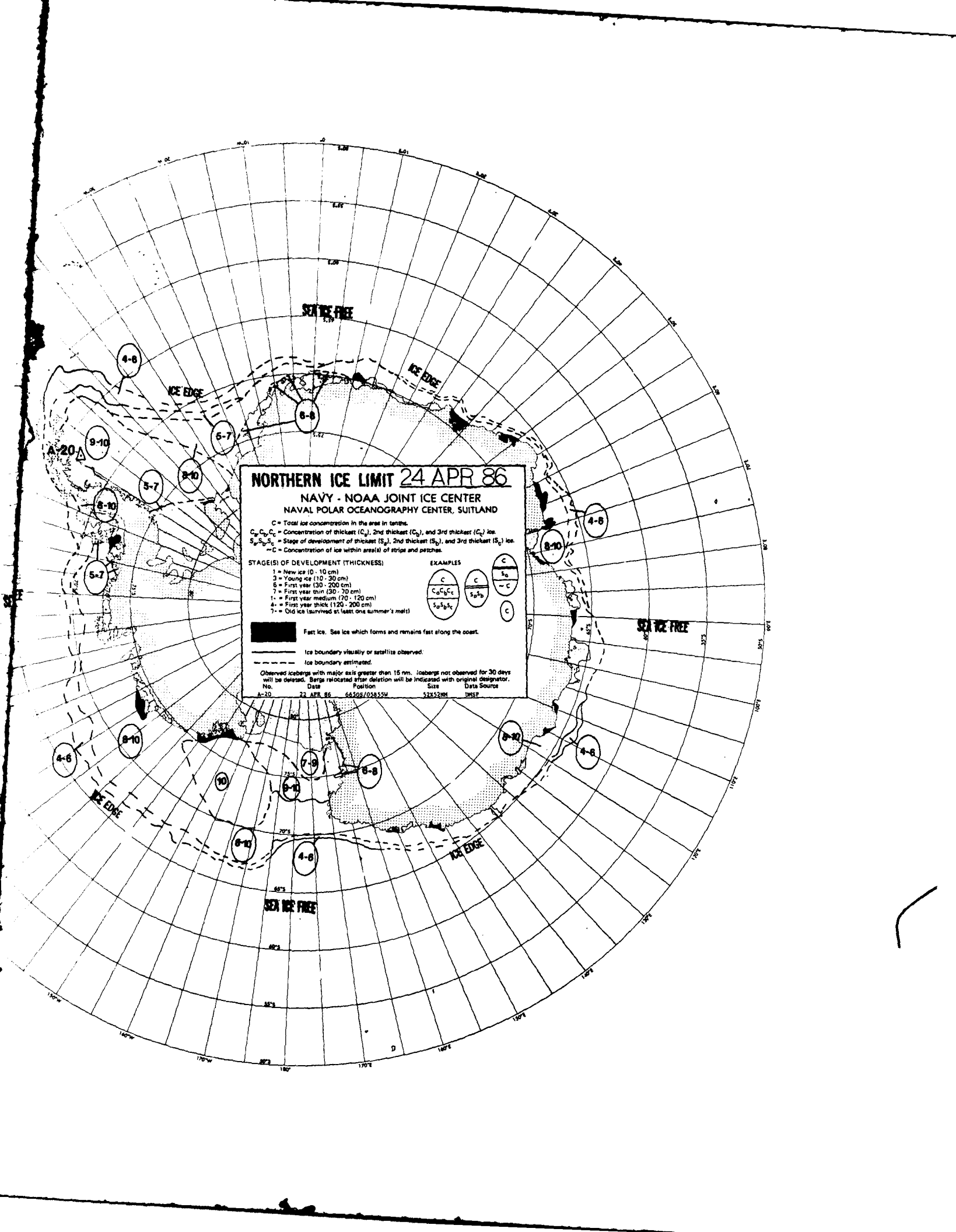
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

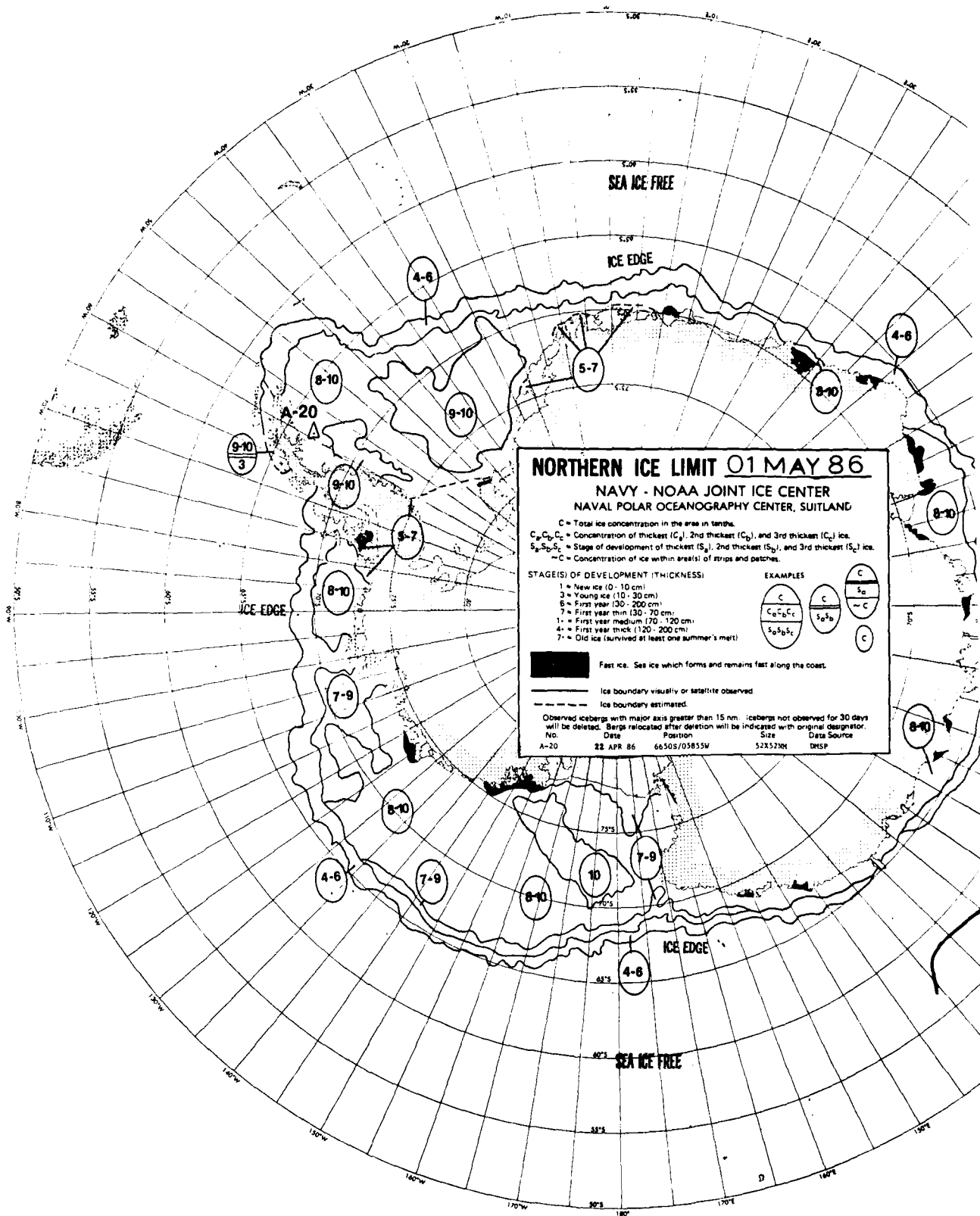
No.	Date	Position	Size	Data Source
C-2	13 MAR 86	6850S/03625E	08X19 NM	NOAA-15
C-5	17 MAR 86	6430S/09905E	38X21 NM	DMSP
A-20	01 APR 86	6715S/05855W	52X52NM	DMSP

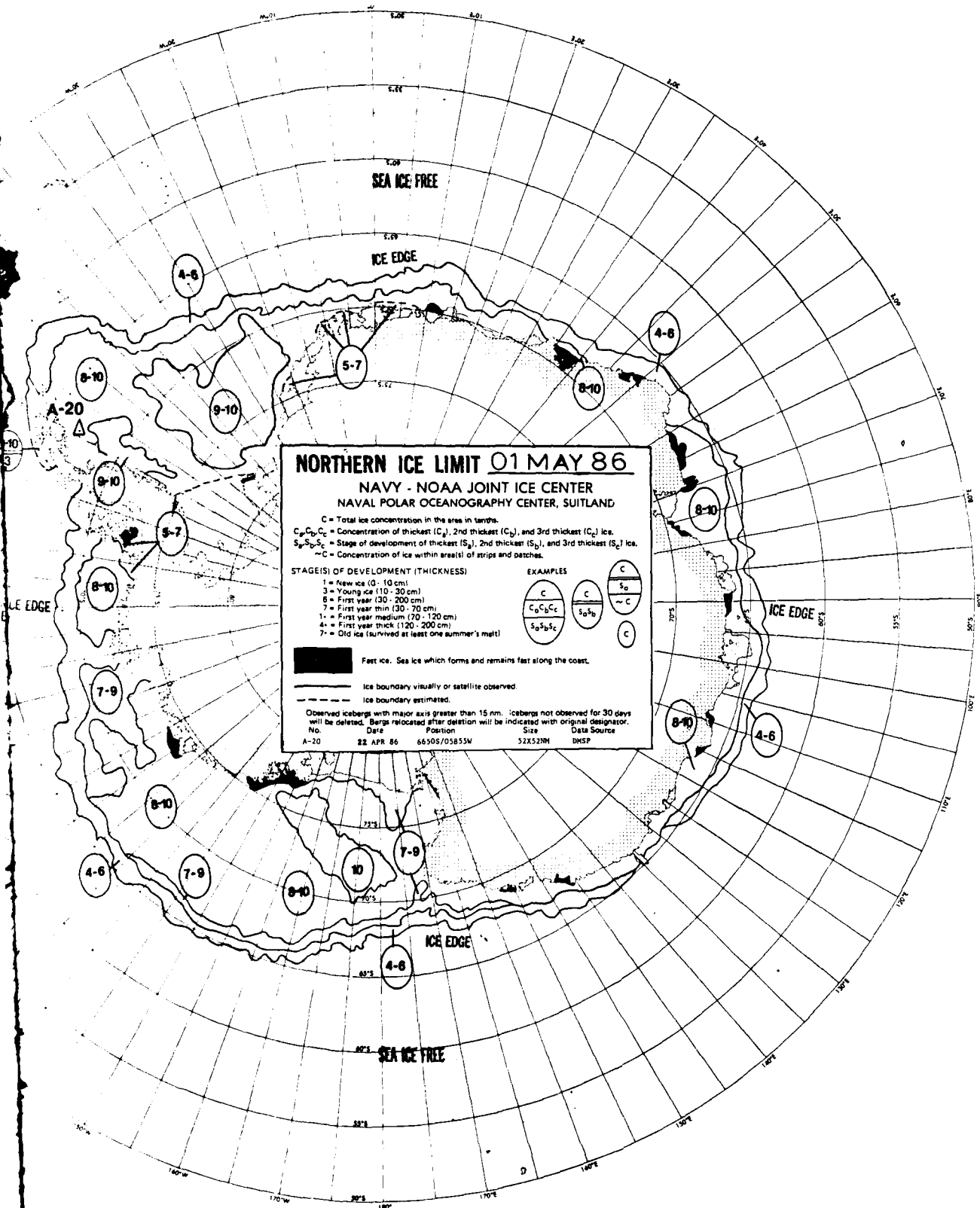


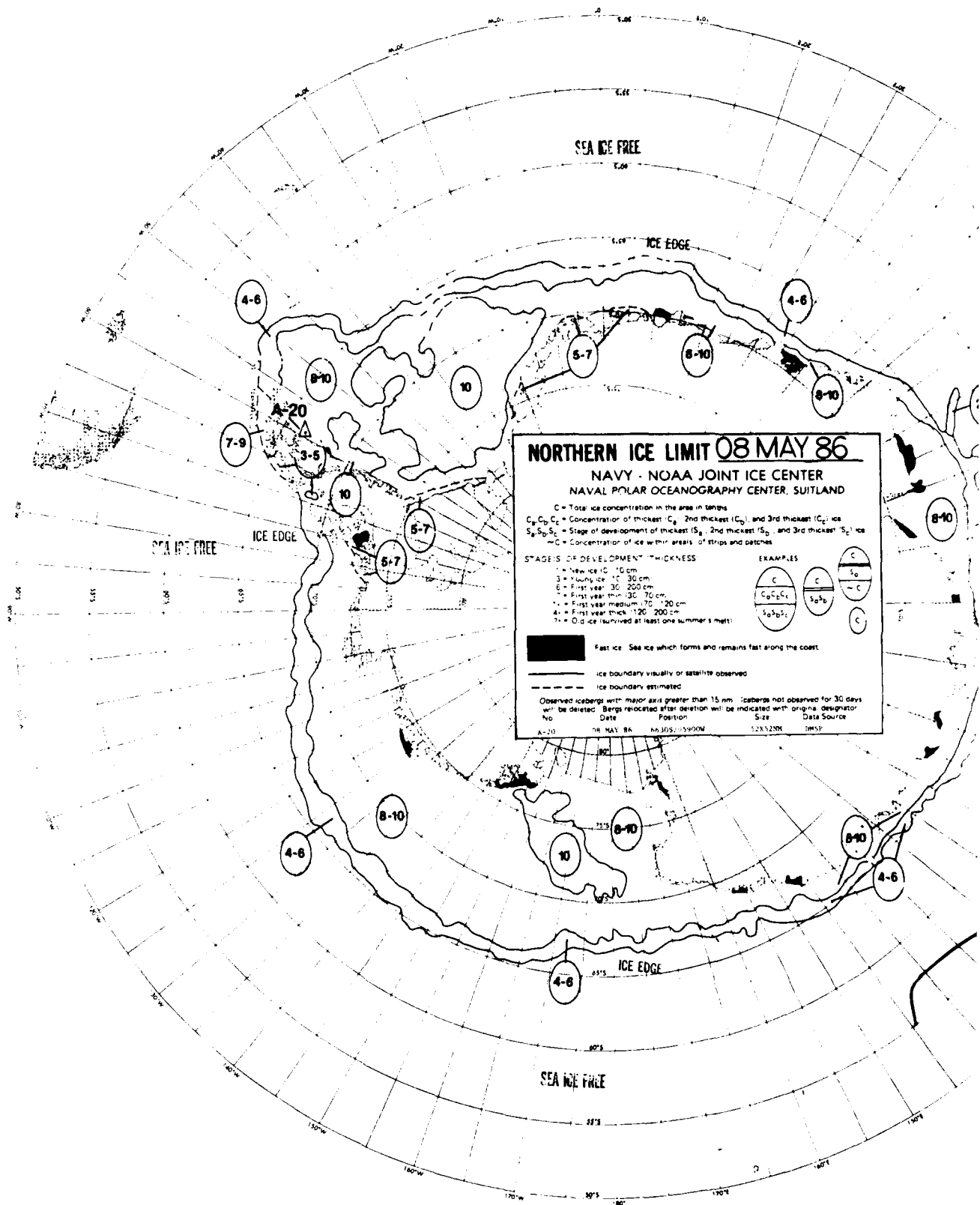


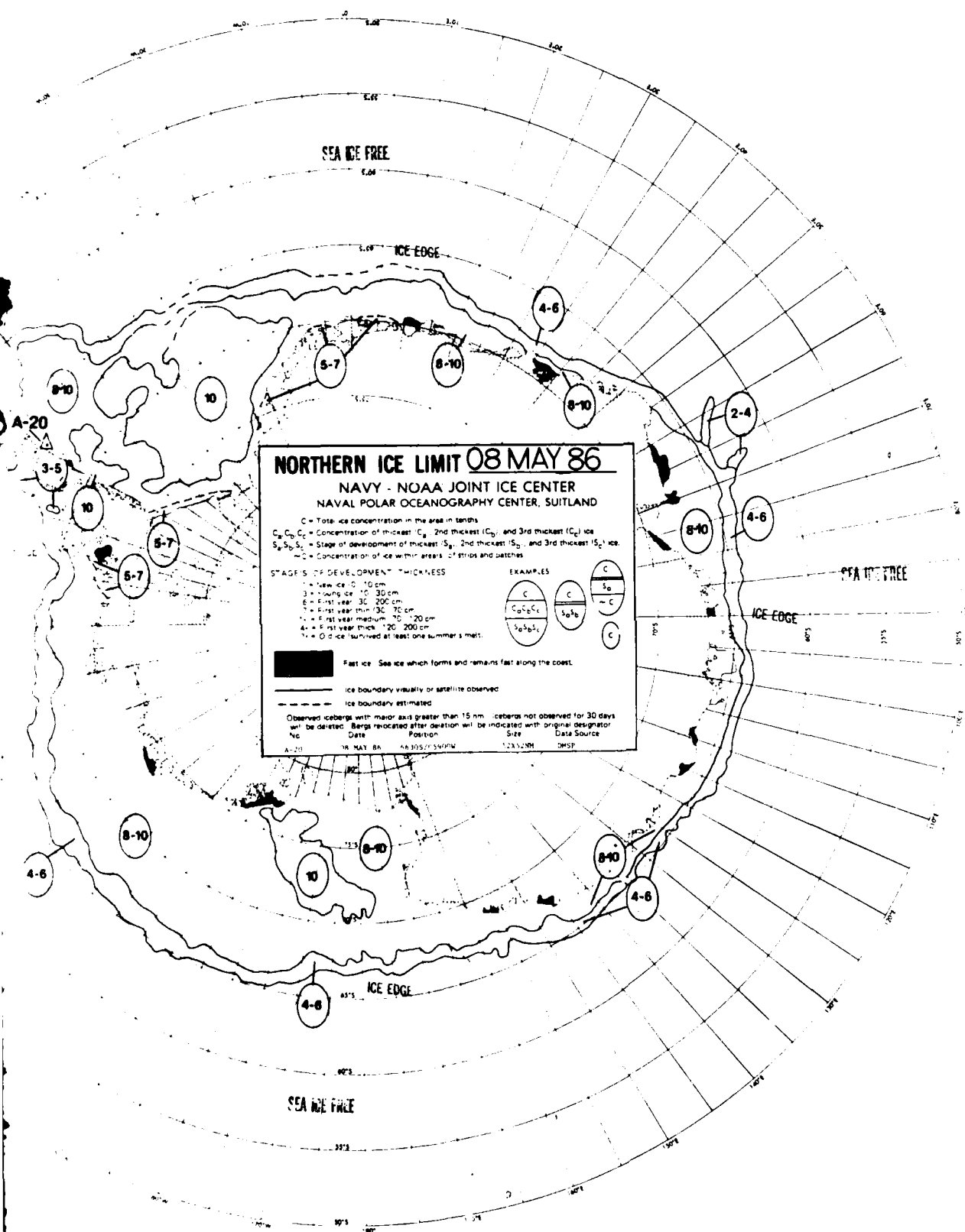


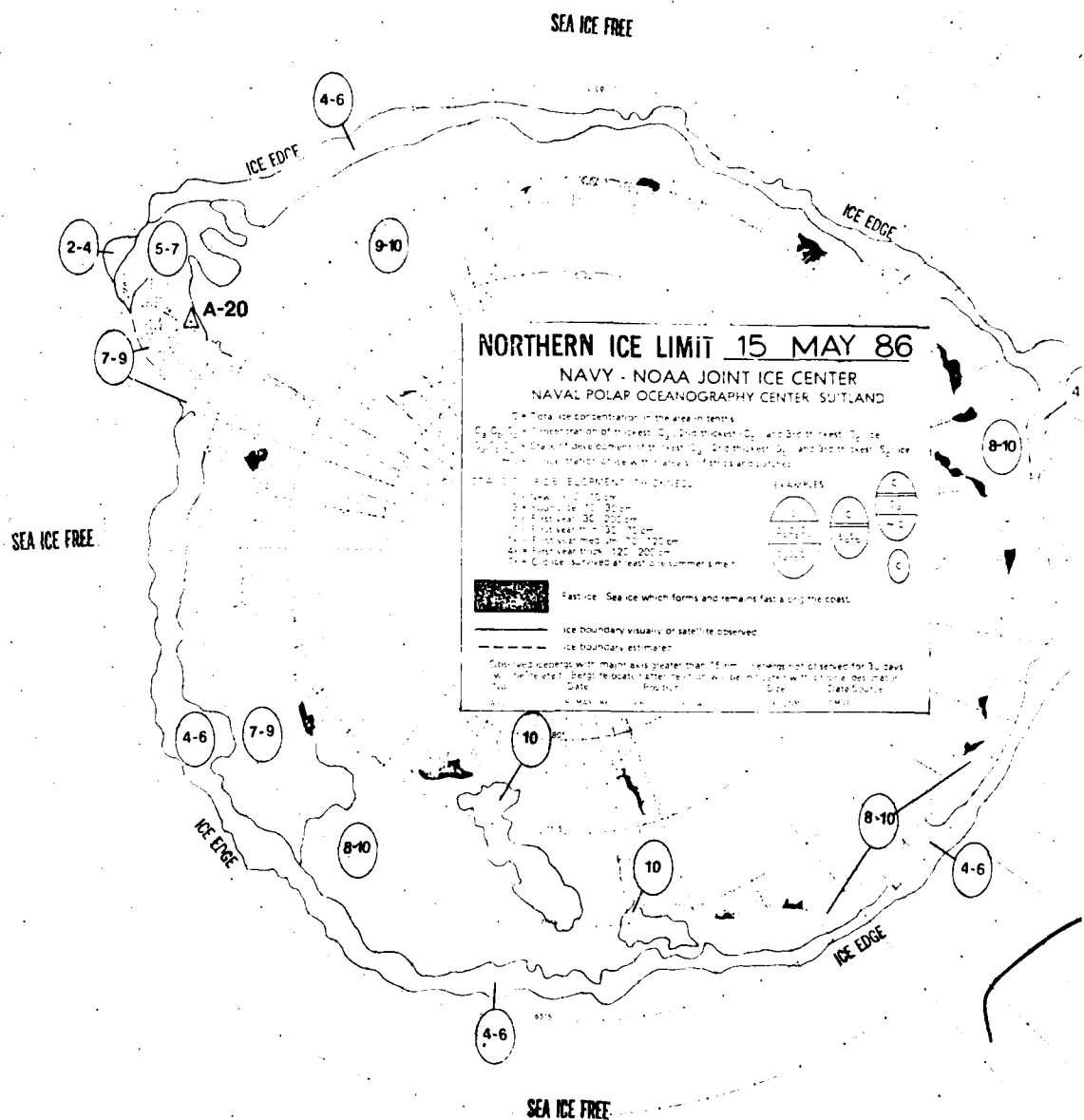


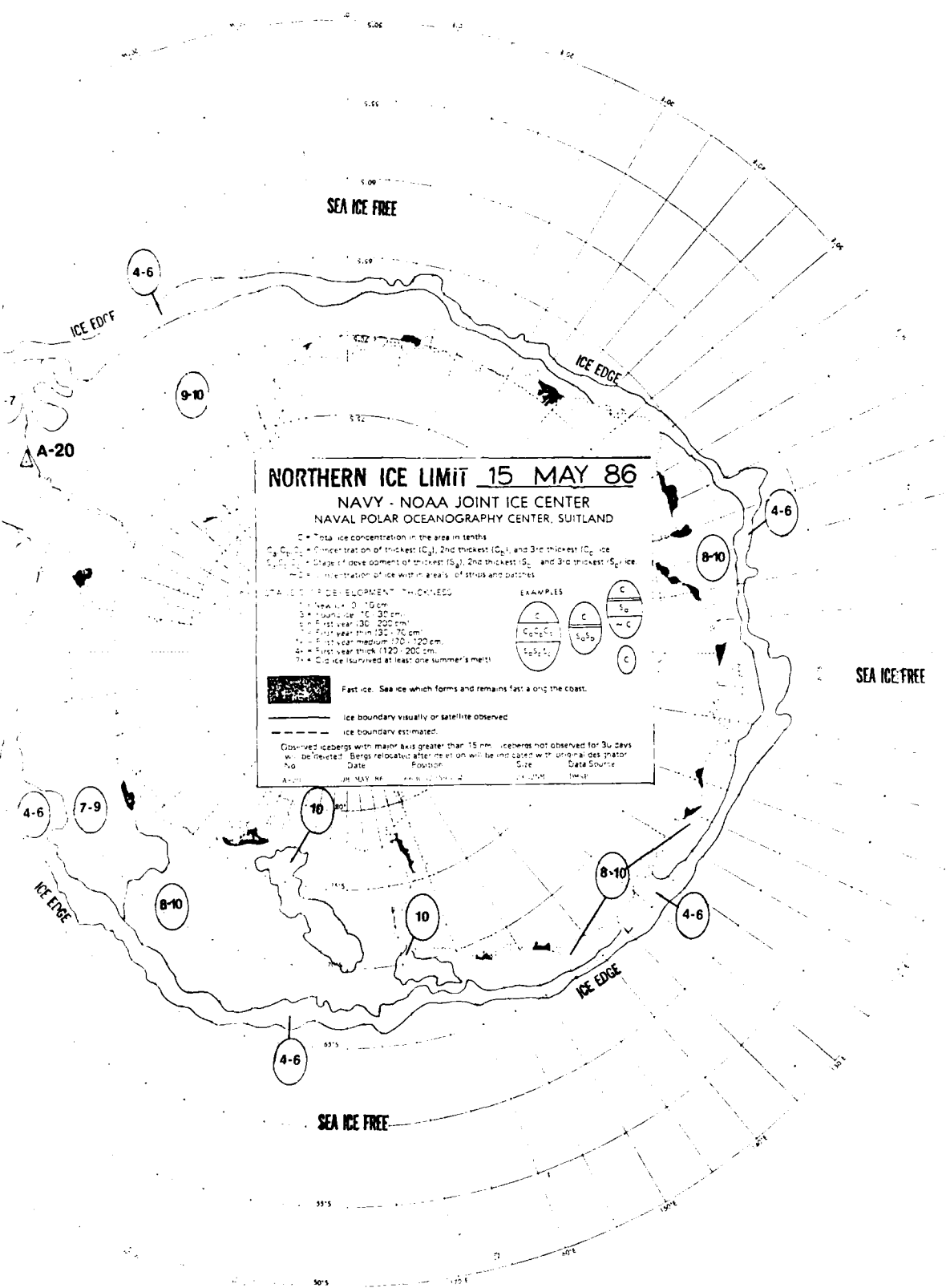


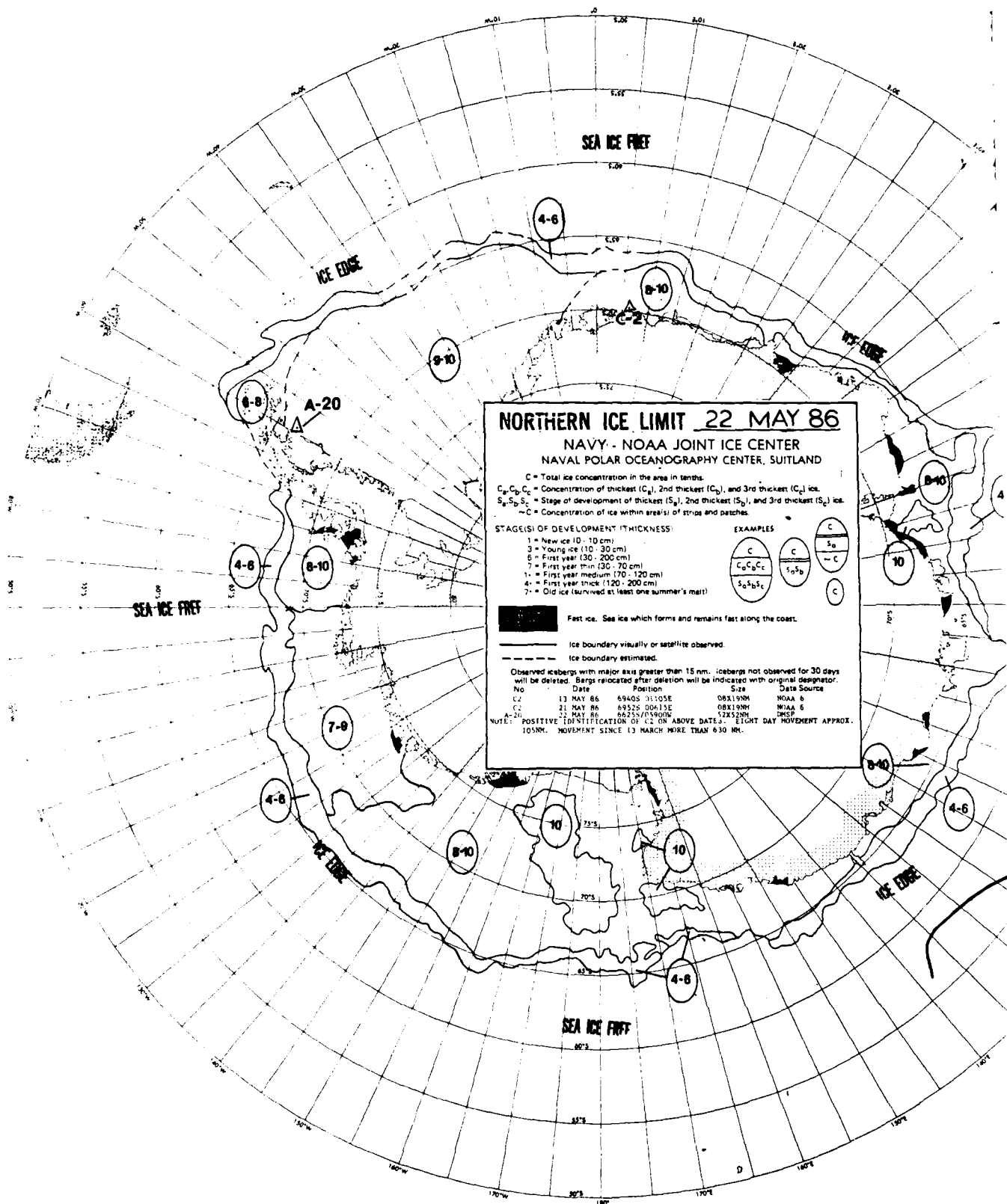


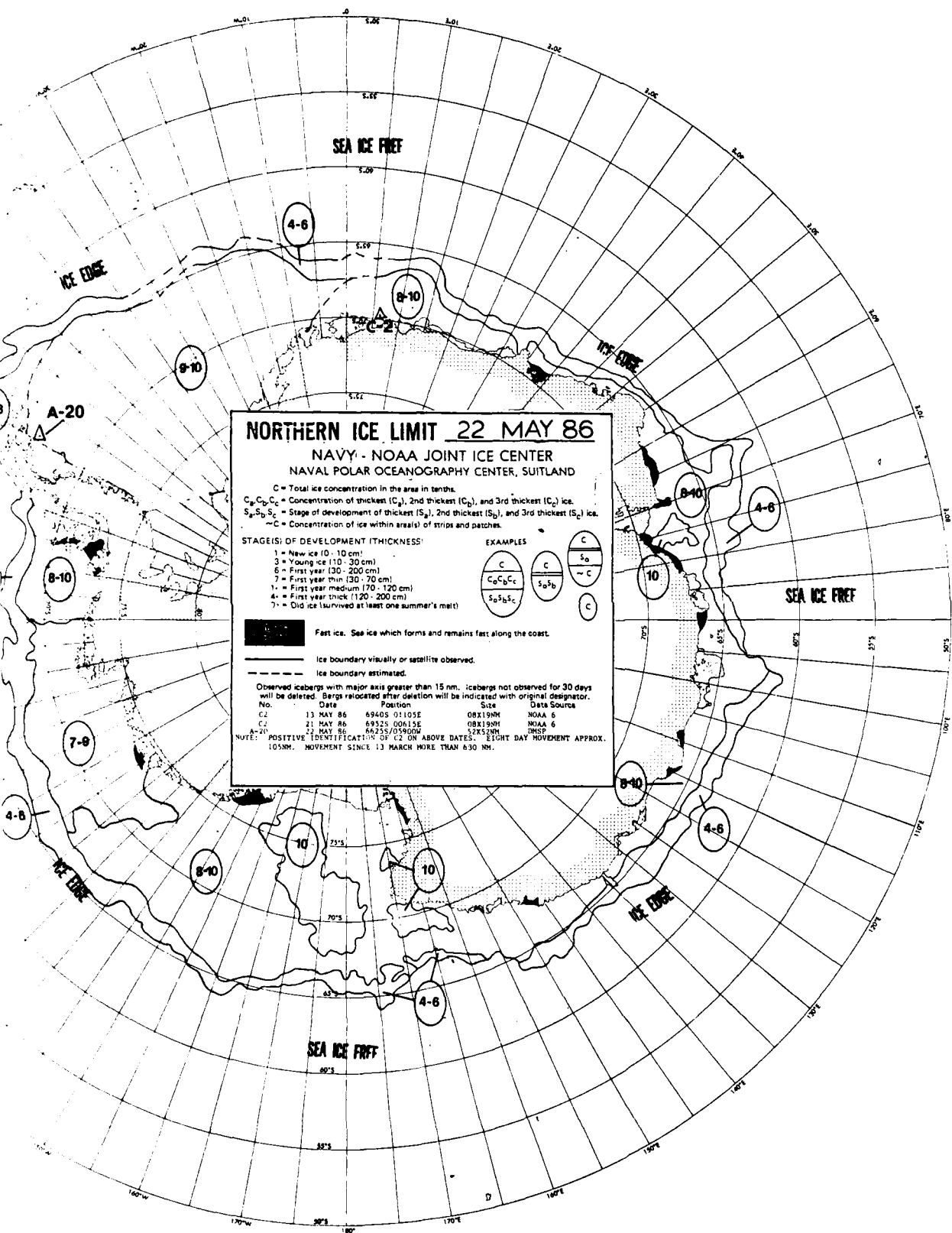


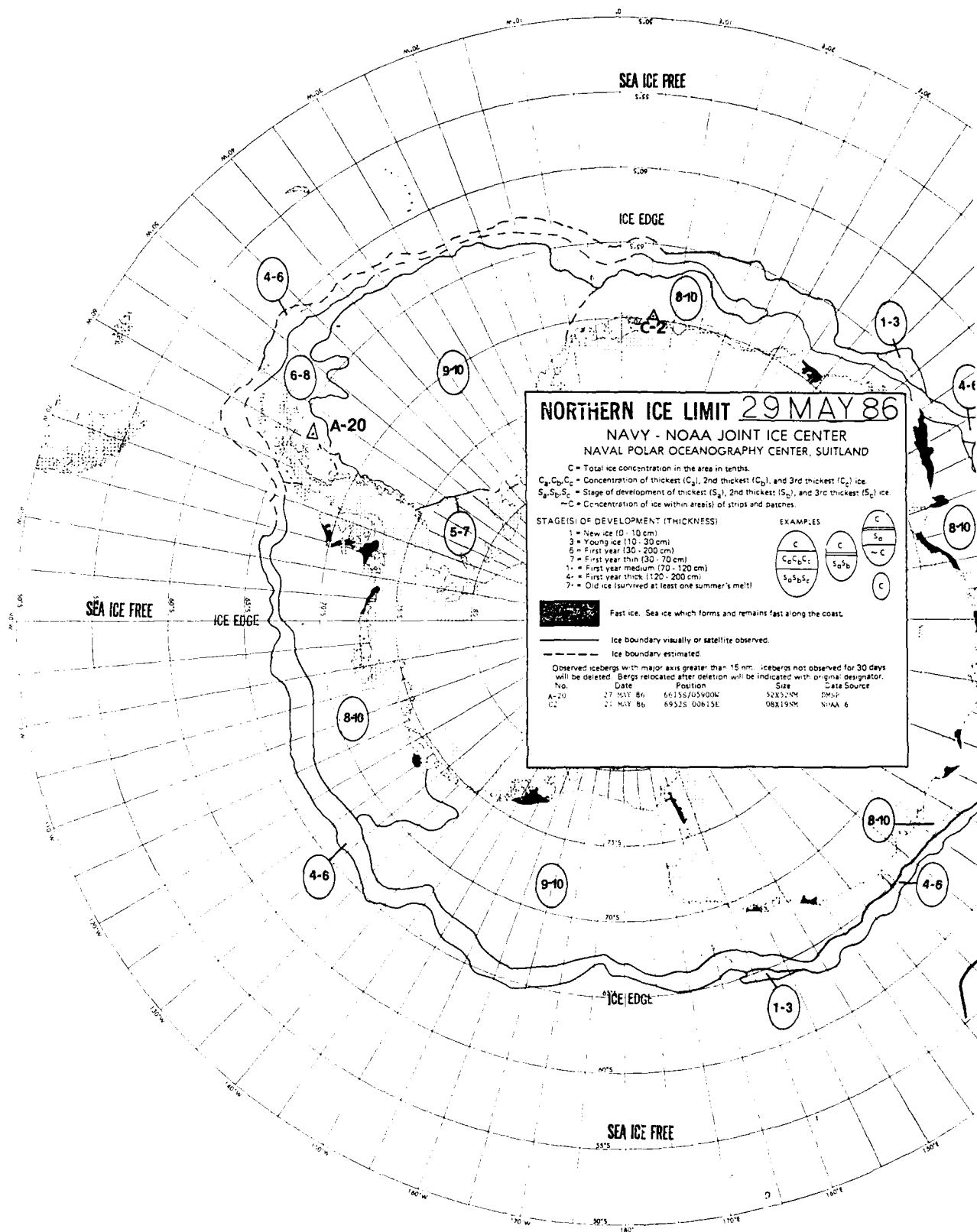


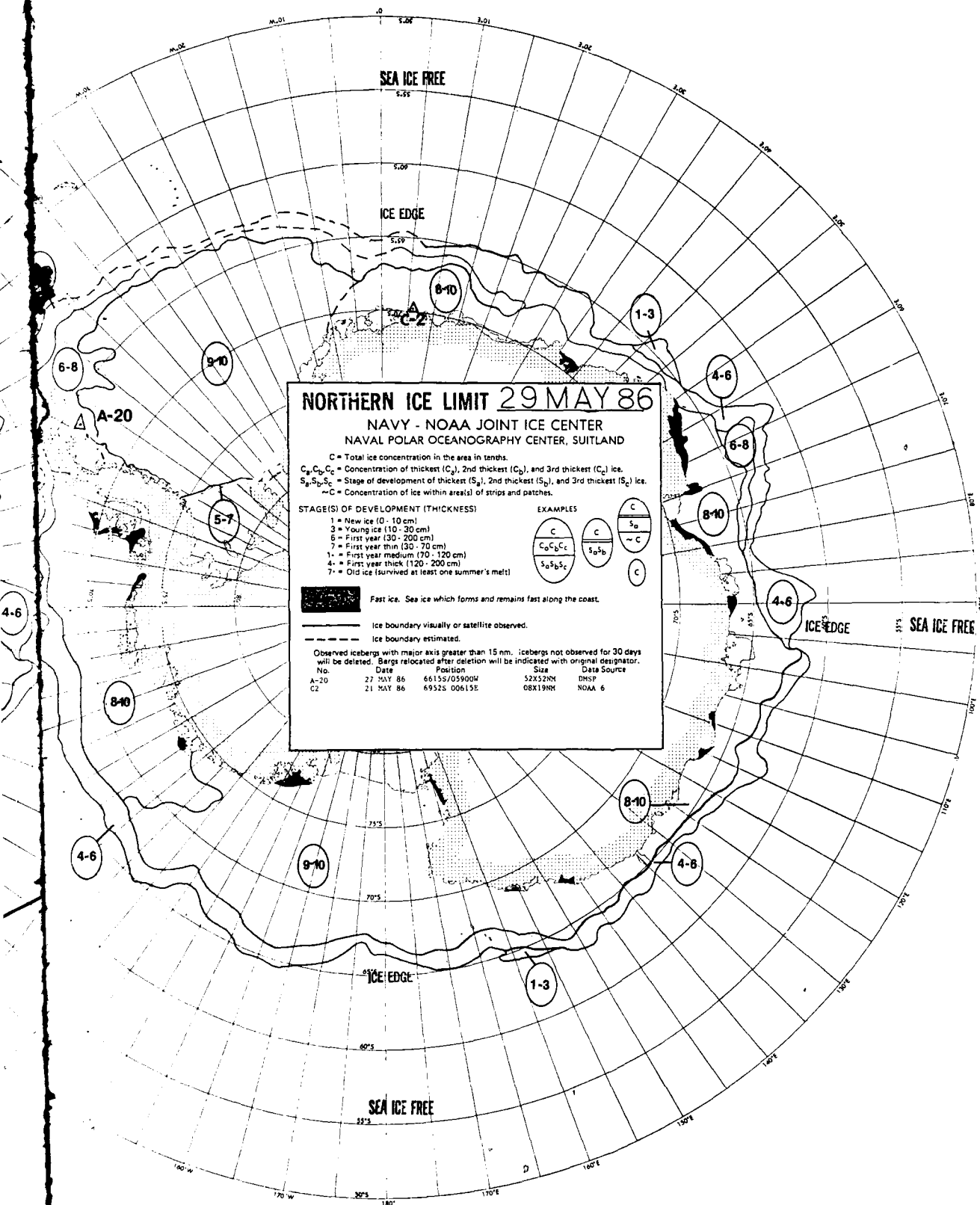


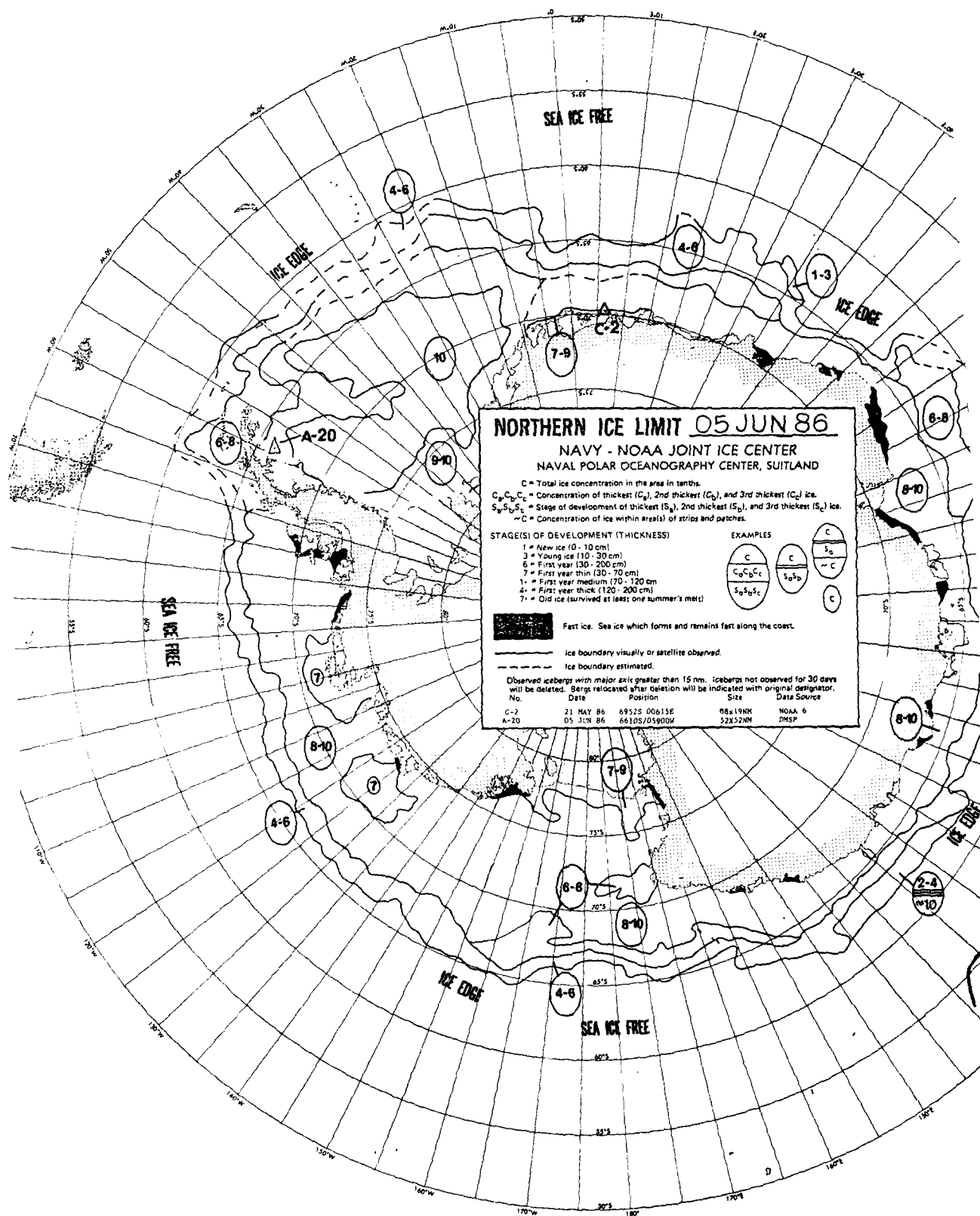


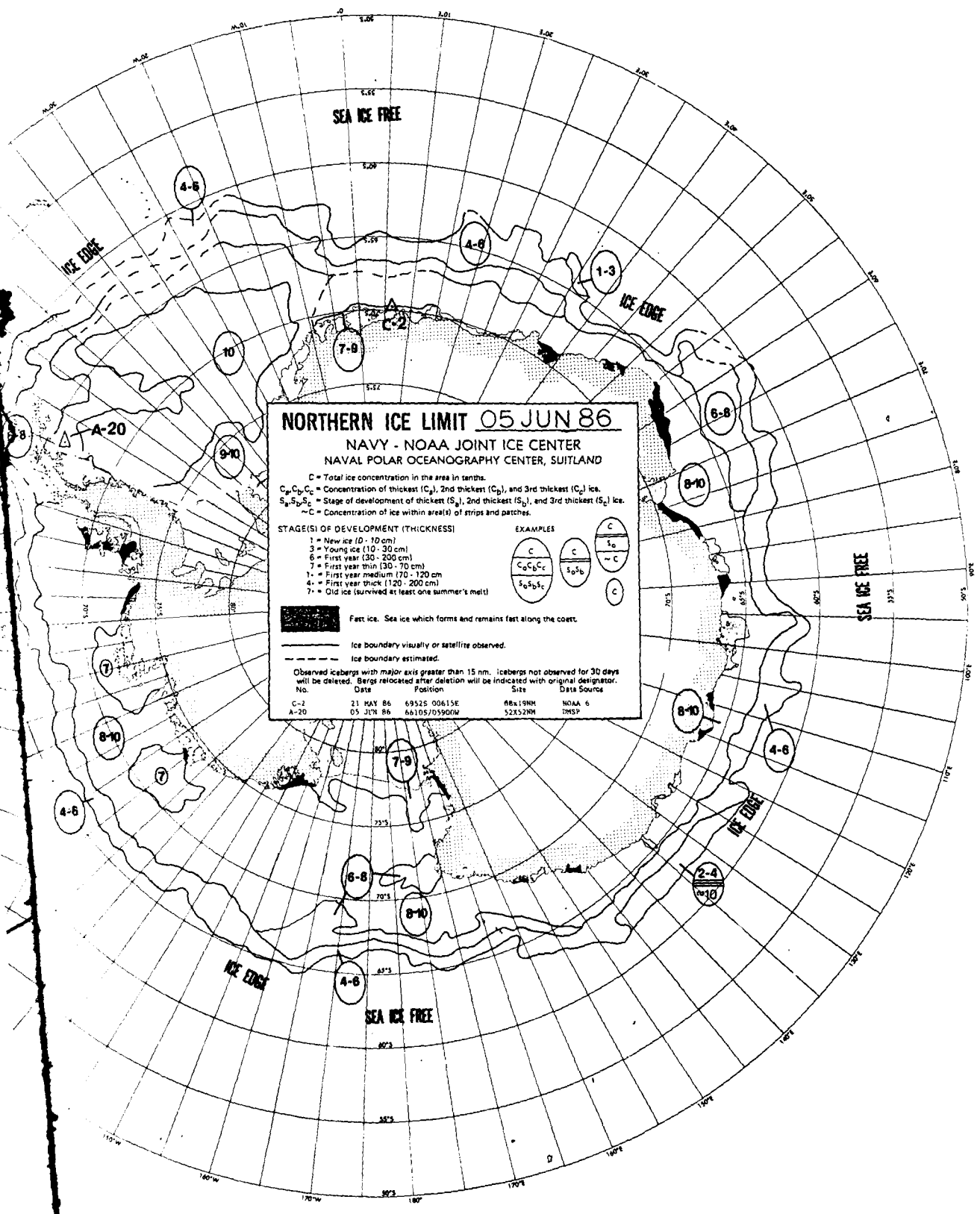












NORTHERN ICE LIMIT 05 JUN 86
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
 ~C = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 30 cm)
- 2 = Young ice (30 - 100 cm)
- 3 = First year (100 - 200 cm)
- 4 = First year medium (170 - 120 cm)
- 5 = First year thick (120 - 200 cm)
- 6 = Old ice (survived at least one summer's melt)

EXAMPLES

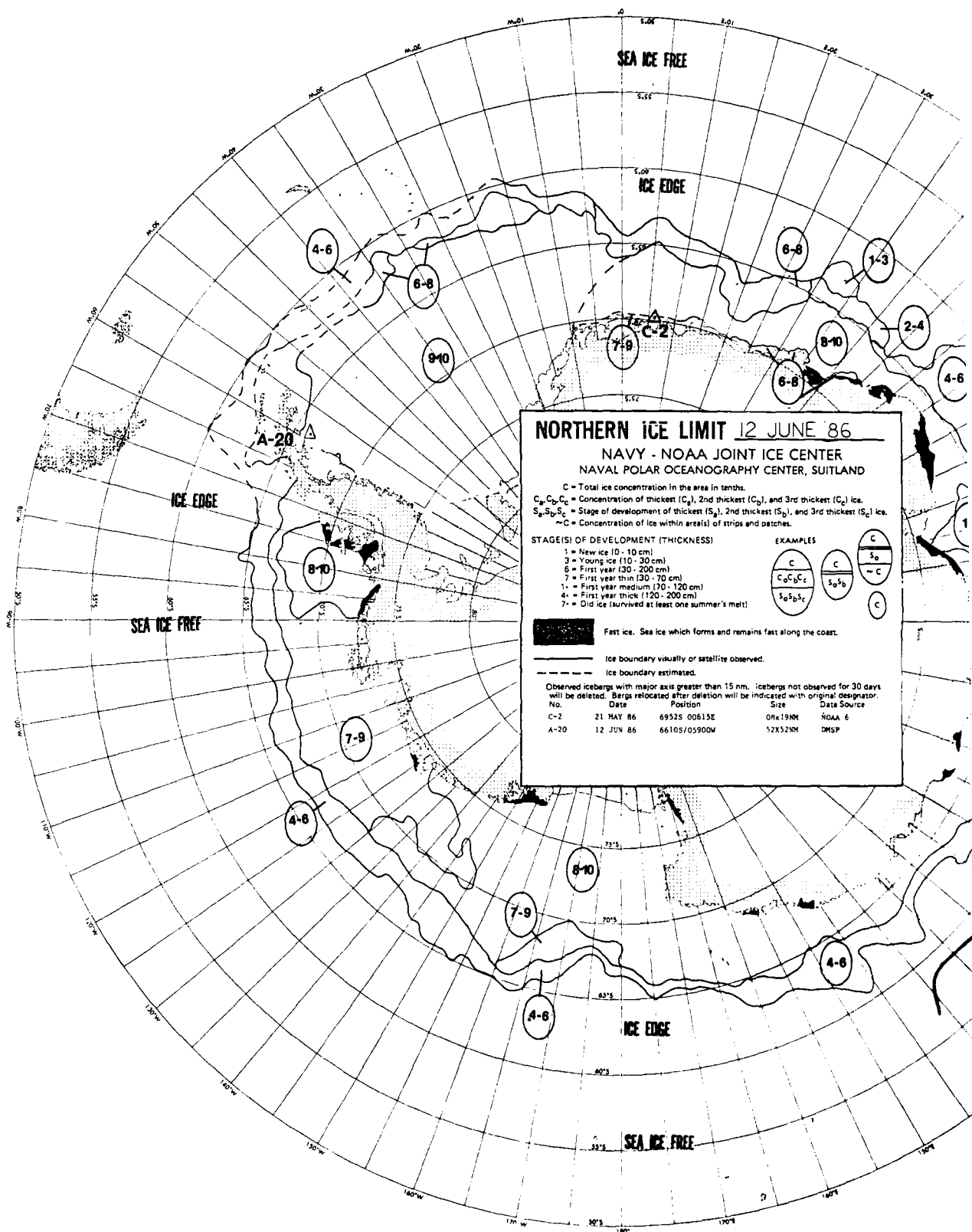
$\frac{C}{C_1 C_2 C_3}$	$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{S_1 S_2 S_3}$
$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{S_1 S_2 S_3}$	$\frac{C}{S_1 S_2 S_3}$

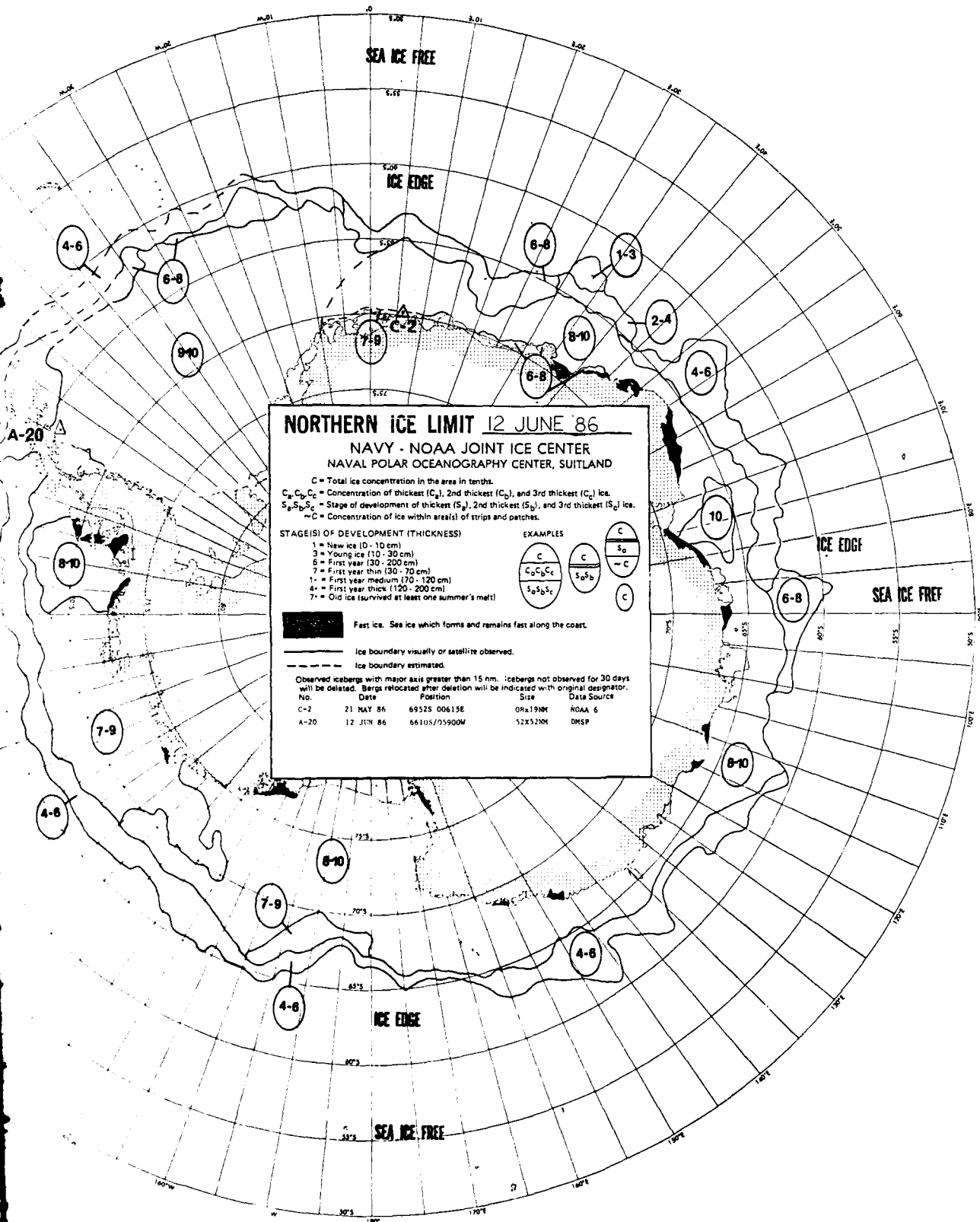
Fast ice. Sea ice which forms and remains fast along the coast.

— 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 original designator.

No.	Date	Position	Size	Date Source
C-2	21 MAY 86	69525 00615E	88x19NM	NOAA 6
A-20	05 JUN 86	66105/05900W	52x52NM	DMSP





NORTHERN ICE LIMIT 12 JUNE 86

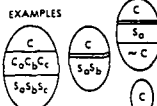
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 $\sim C$ = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



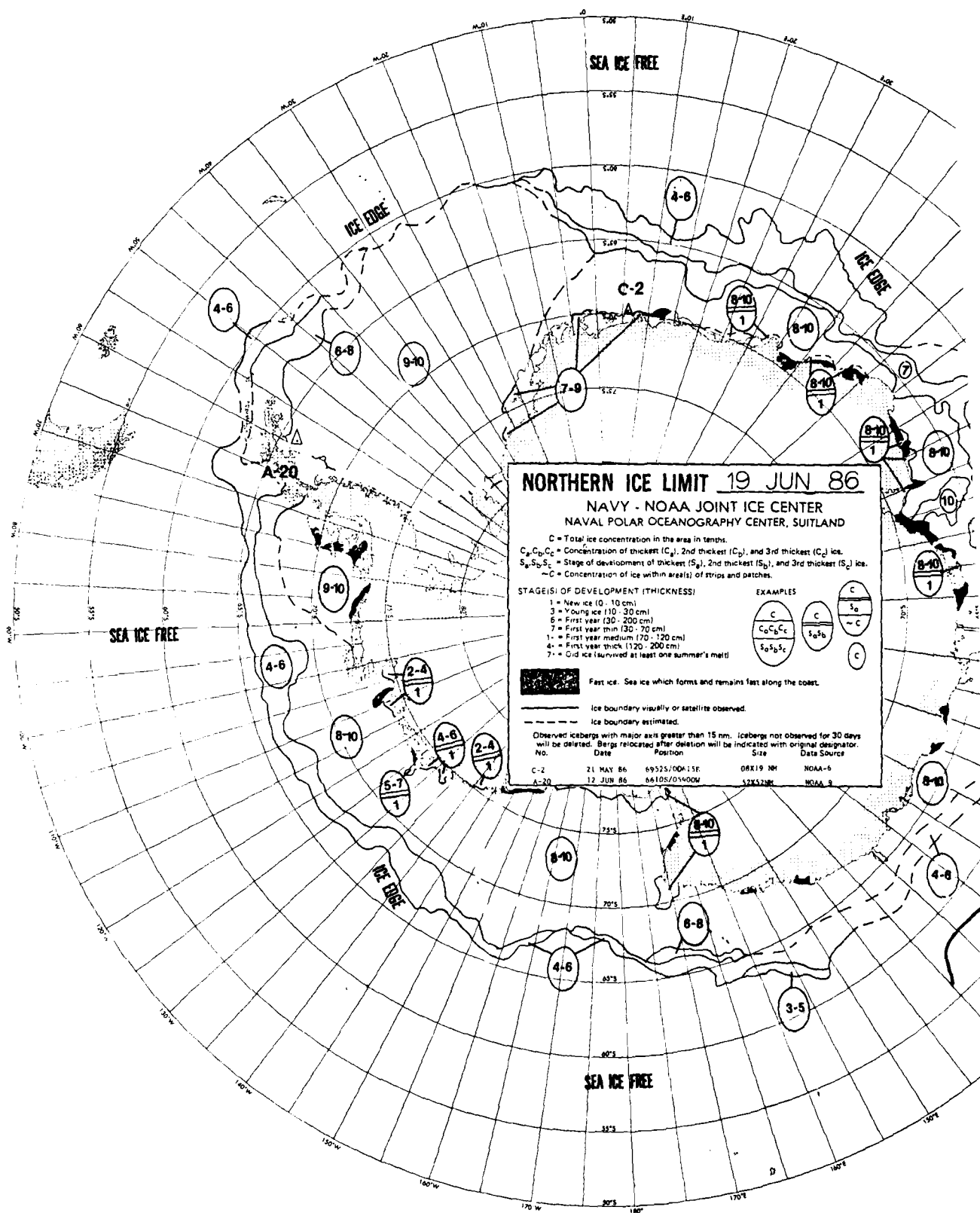
Fast ice. Sea ice which forms and remains fast along the coast.

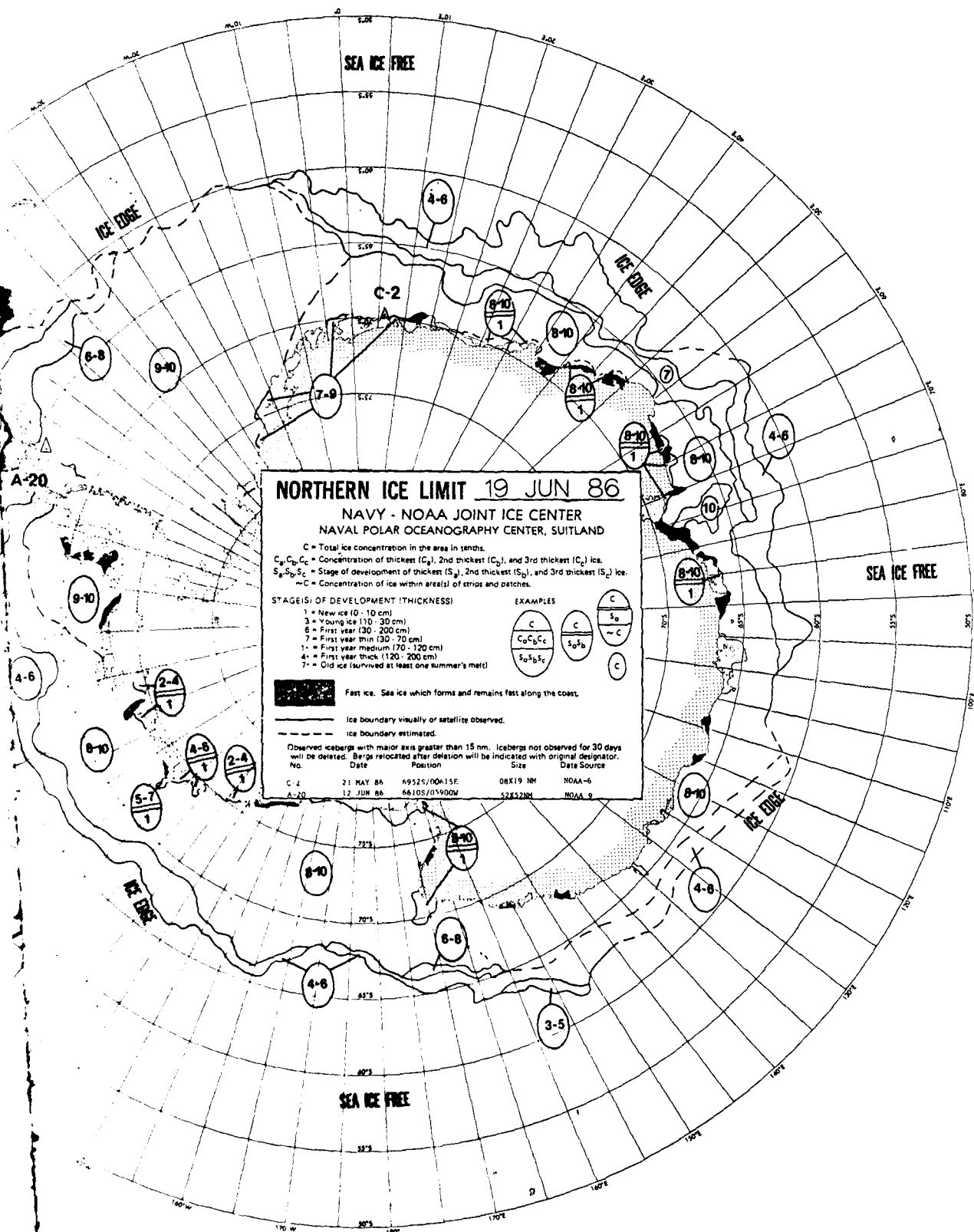
Ice boundary visually or satellite observed.

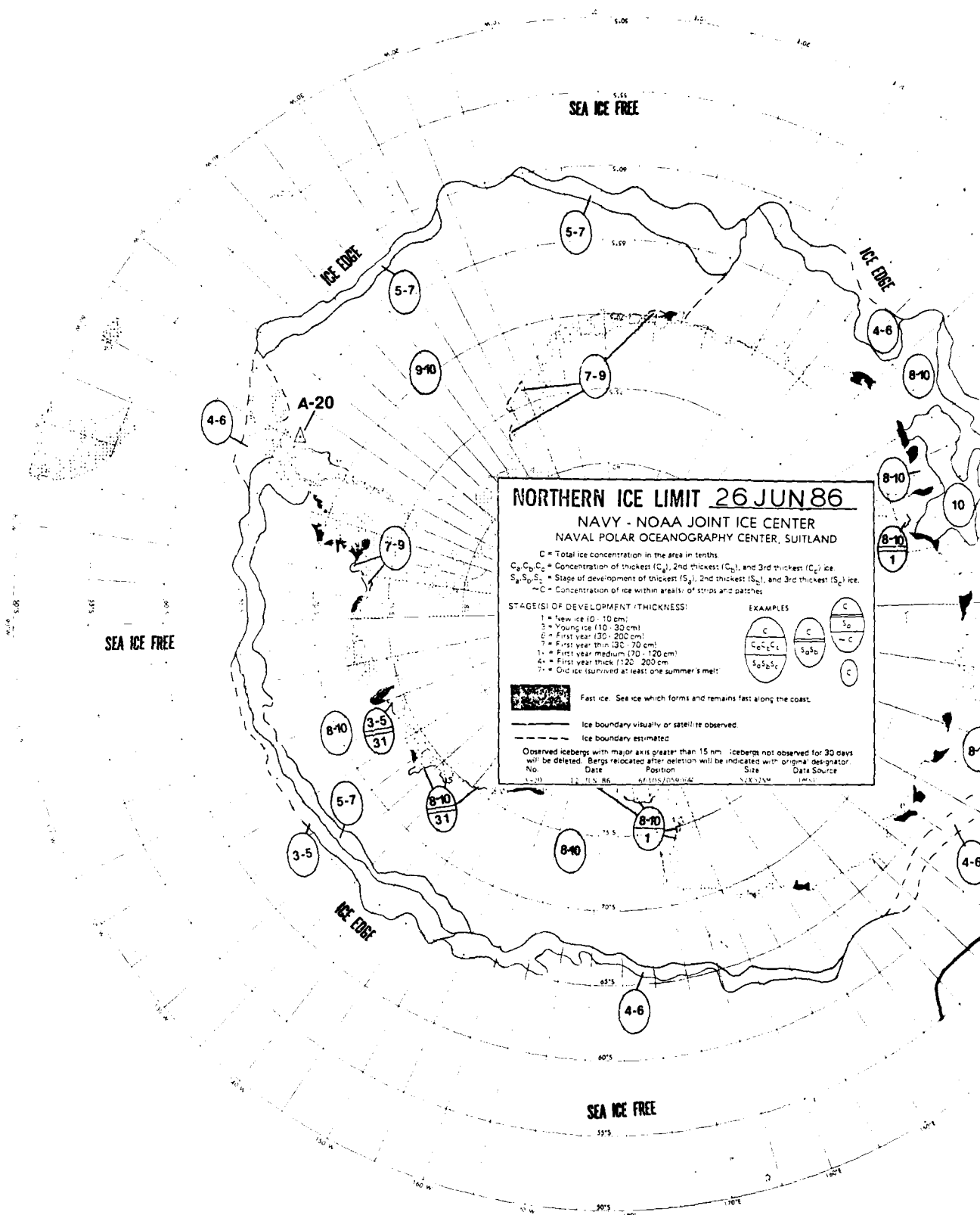
Ice boundary estimated.

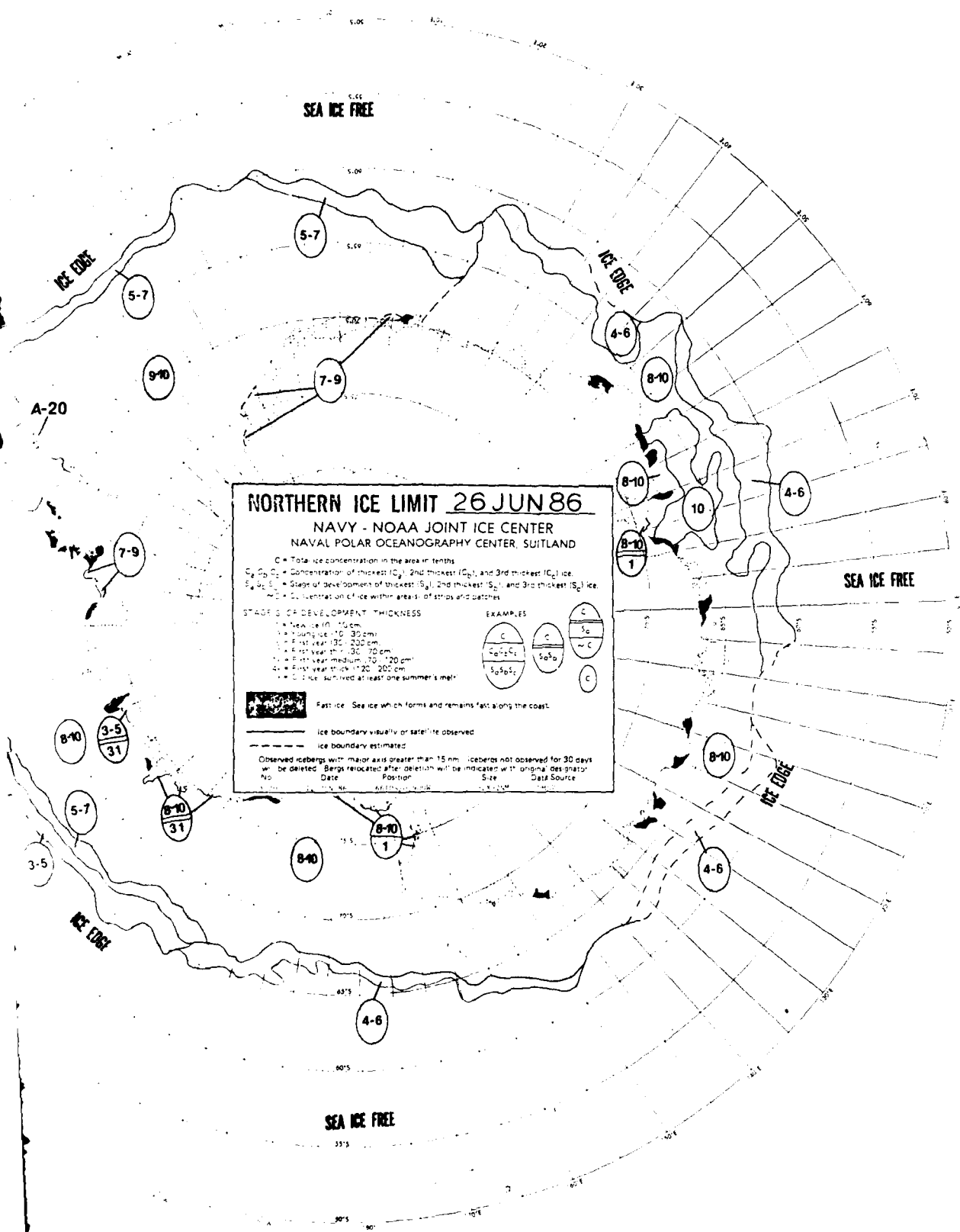
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

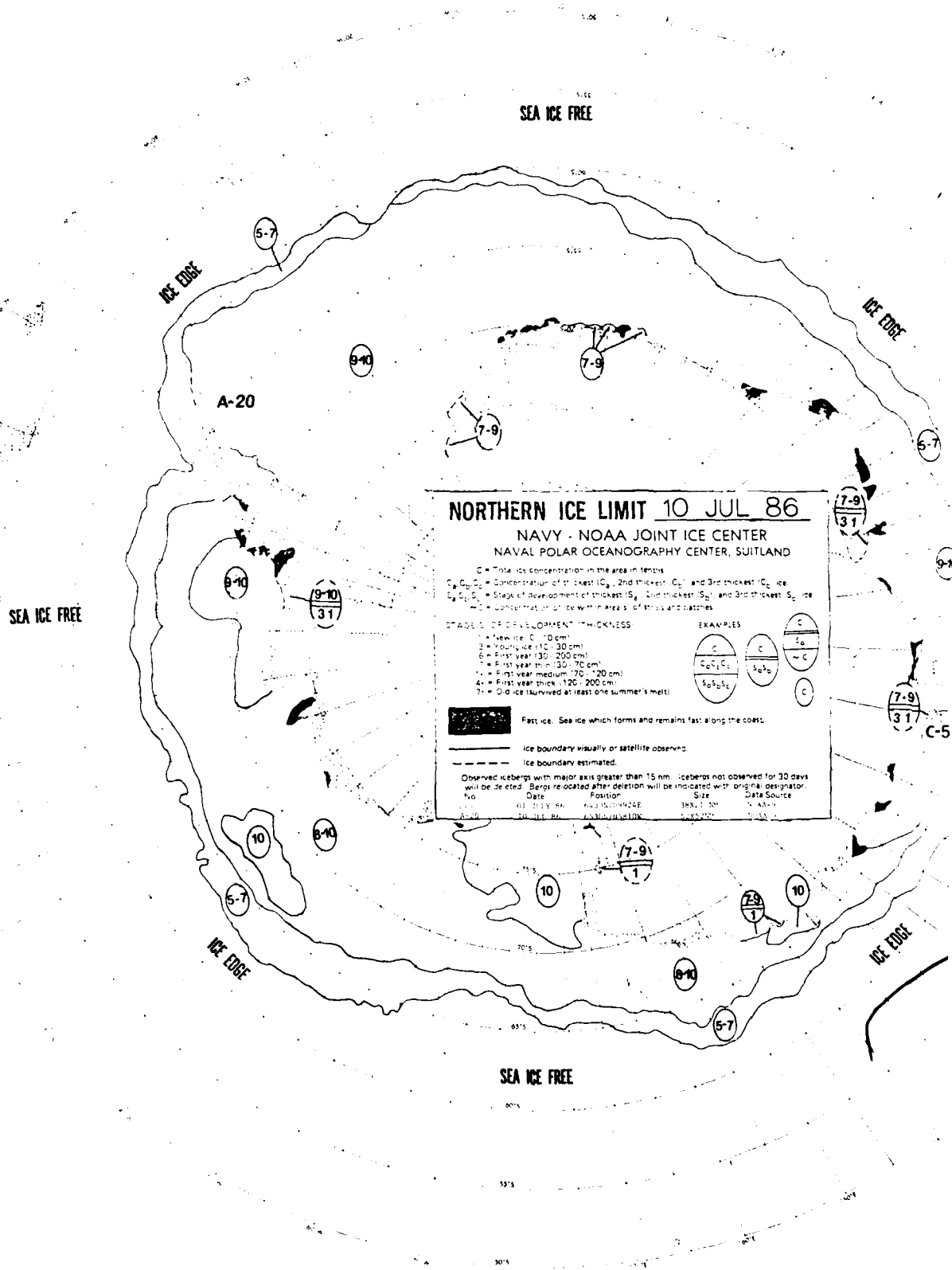
No.	Date	Position	Size	Data Source
C-2	21 MAY 86	69525 00613E	09x19NM	NOAA 6
A-20	12 JUN 86	66105/95900W	52x52NM	DMSP

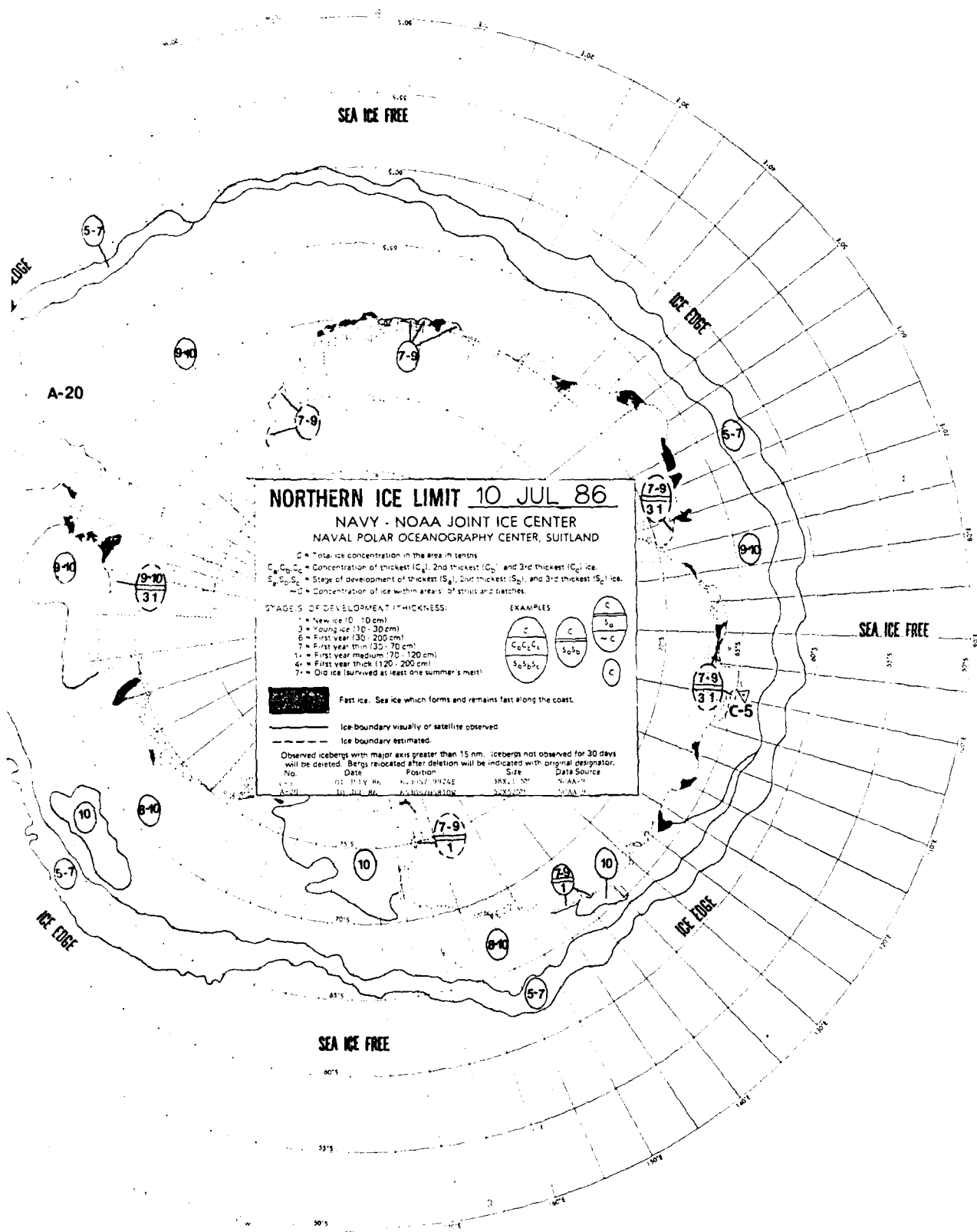


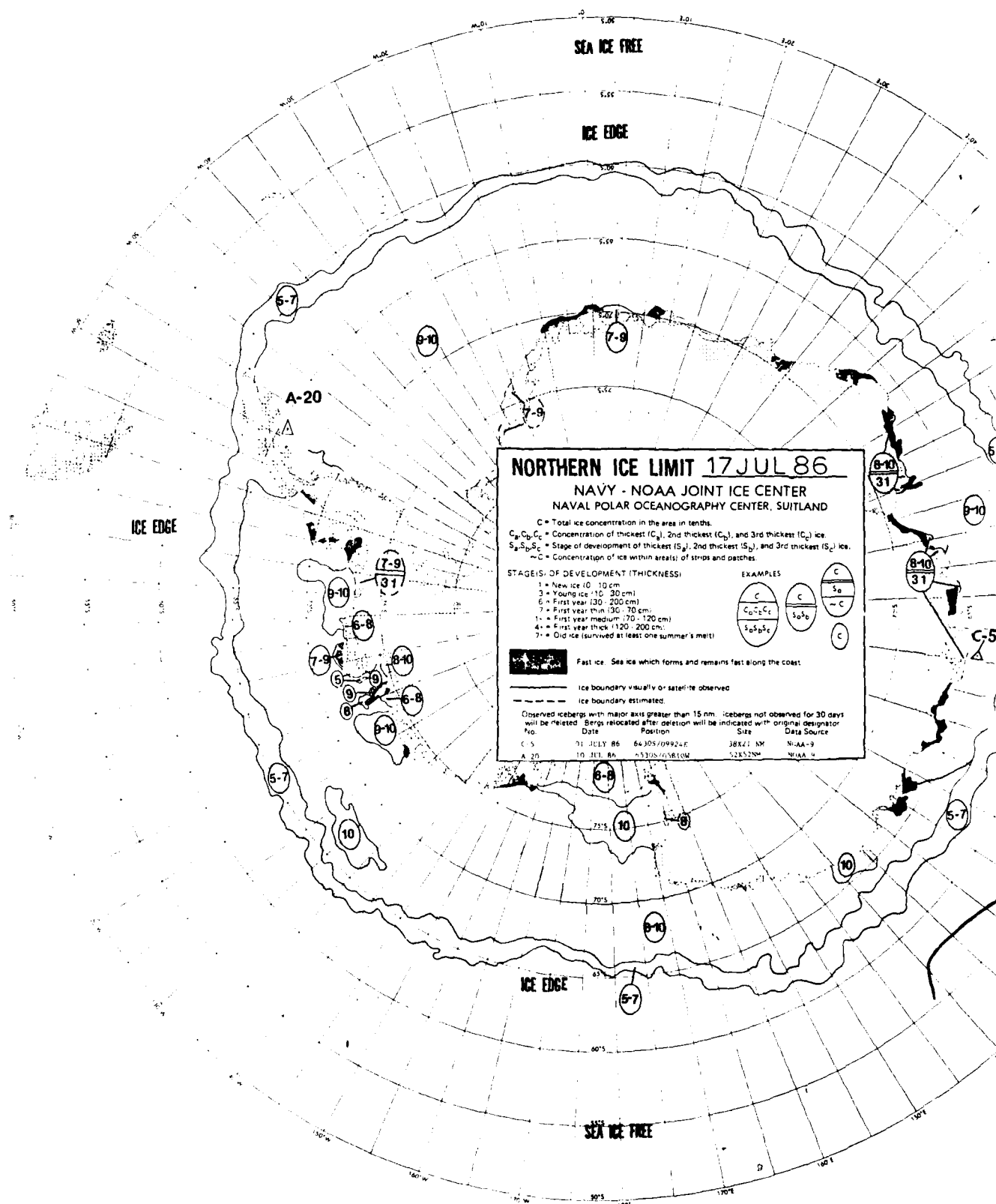












NORTHERN ICE LIMIT 17 JUL 86

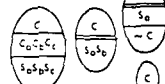
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within areas of strips and patches.

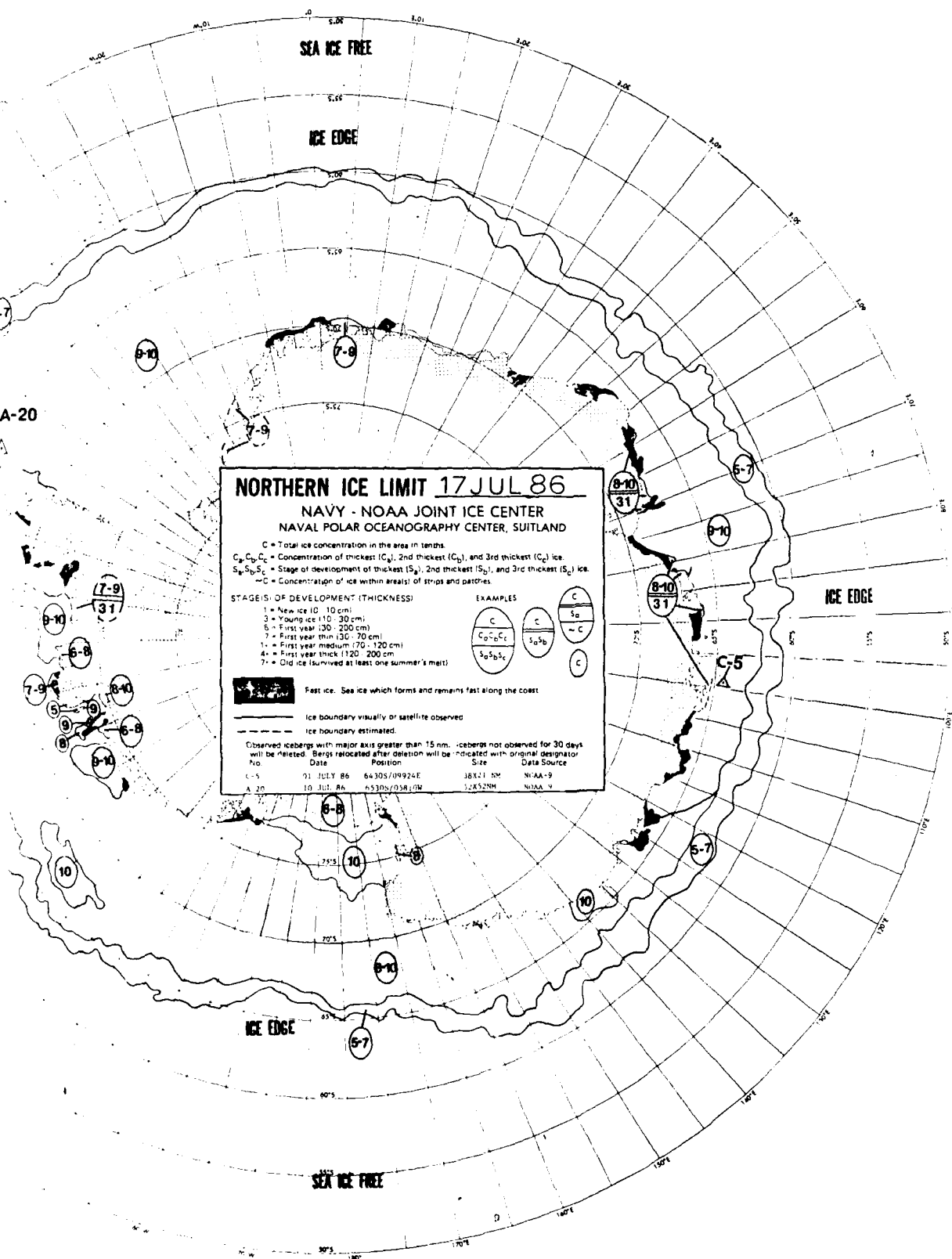
STAGES OF DEVELOPMENT (THICKNESS)

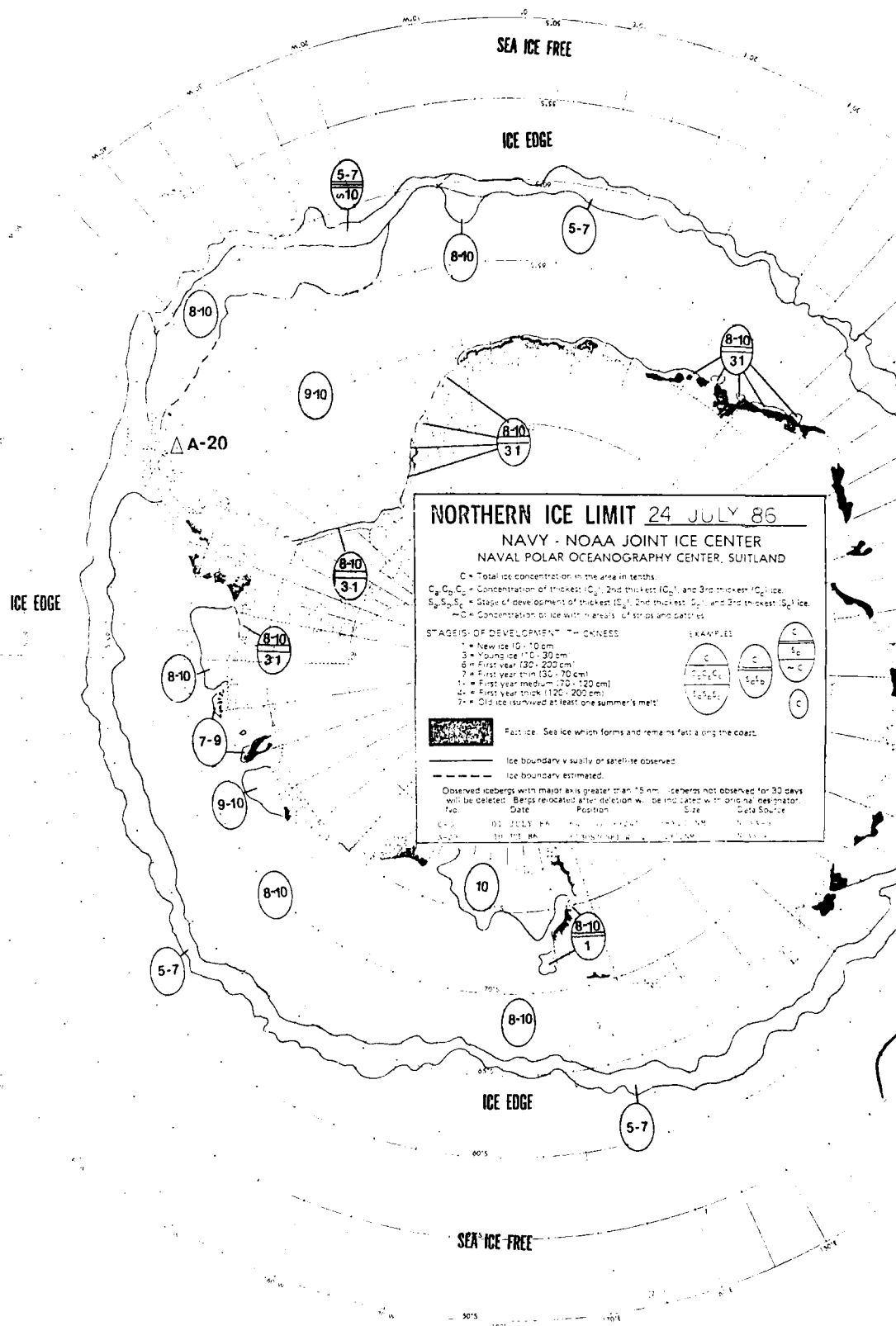
- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

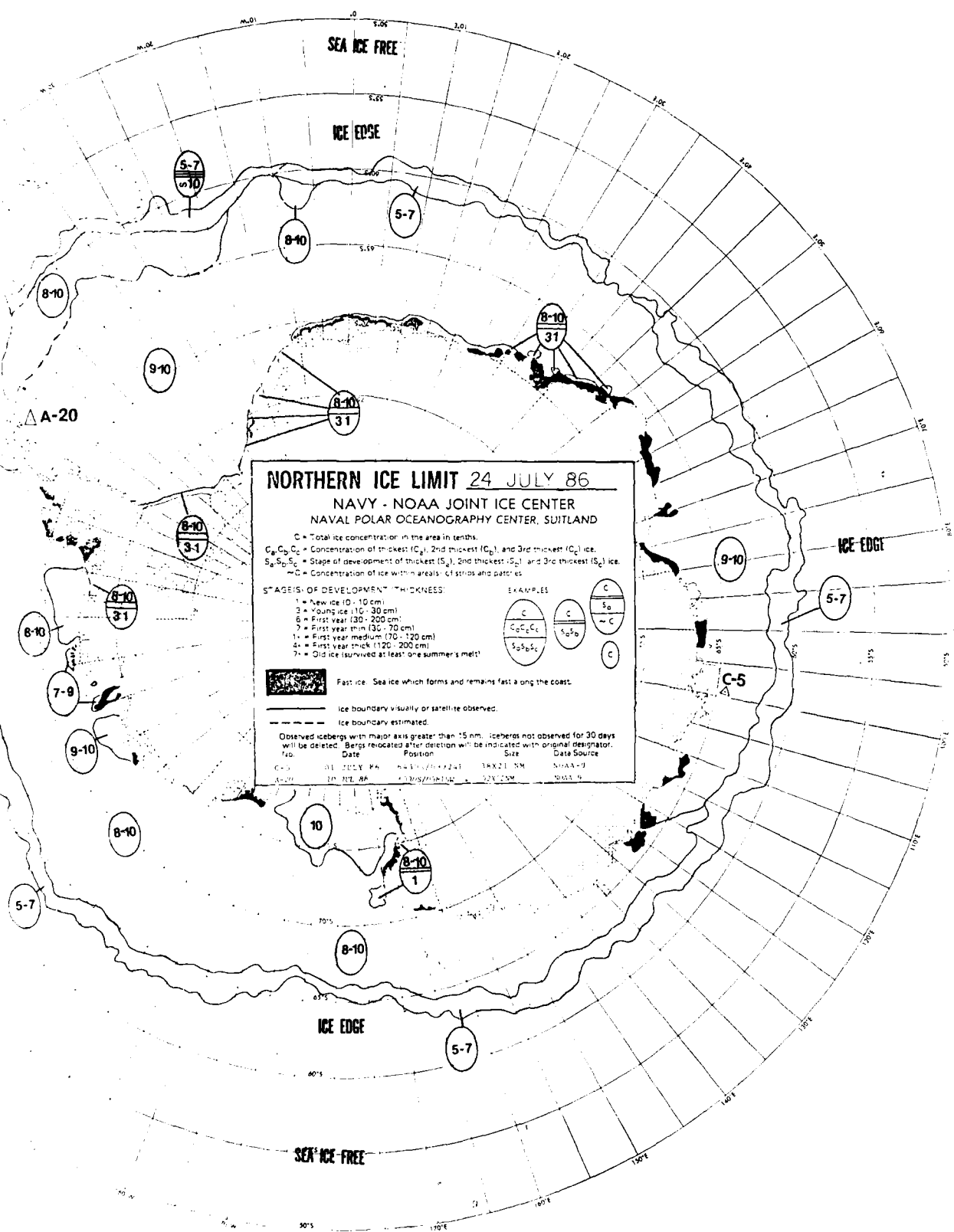
EXAMPLES

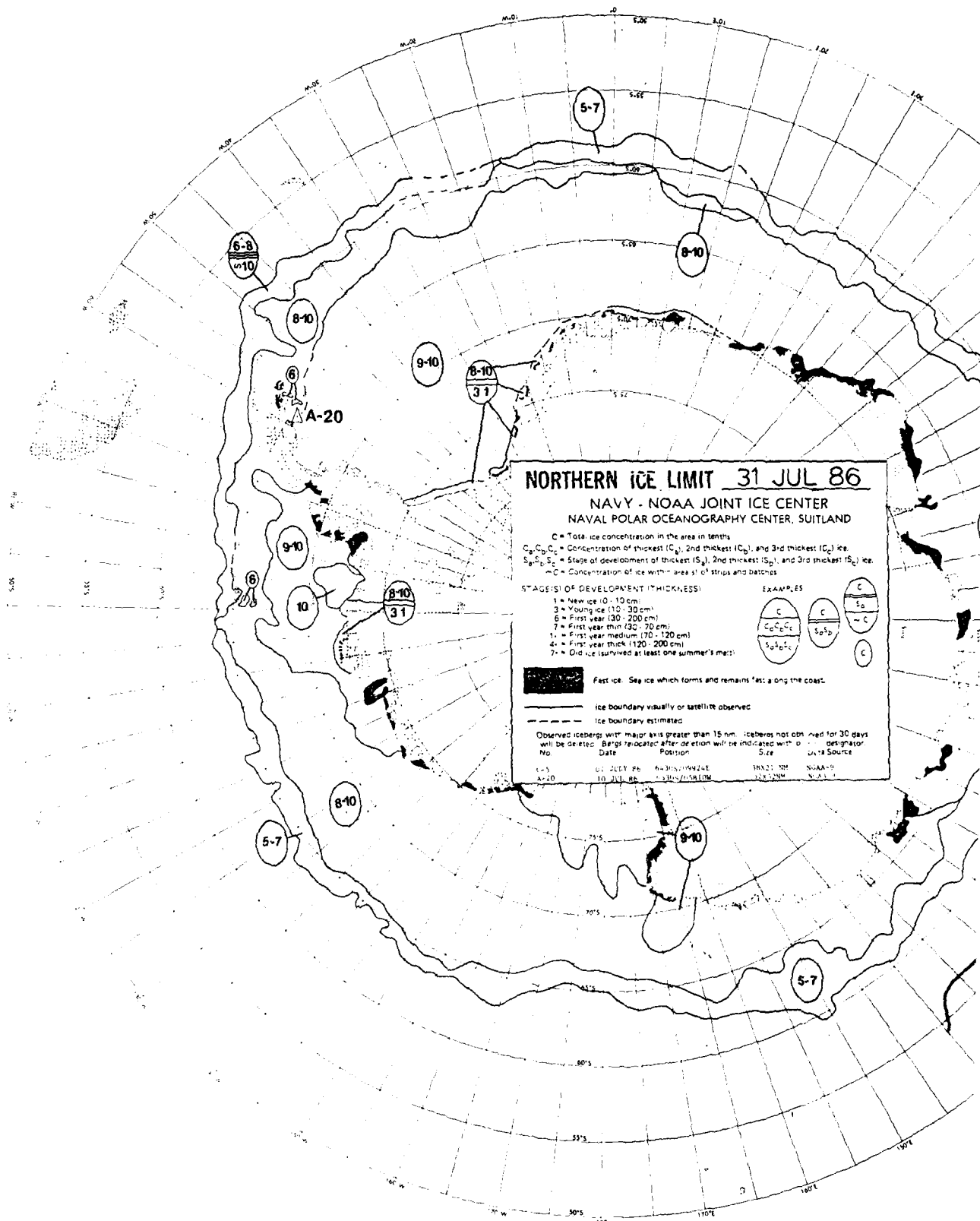


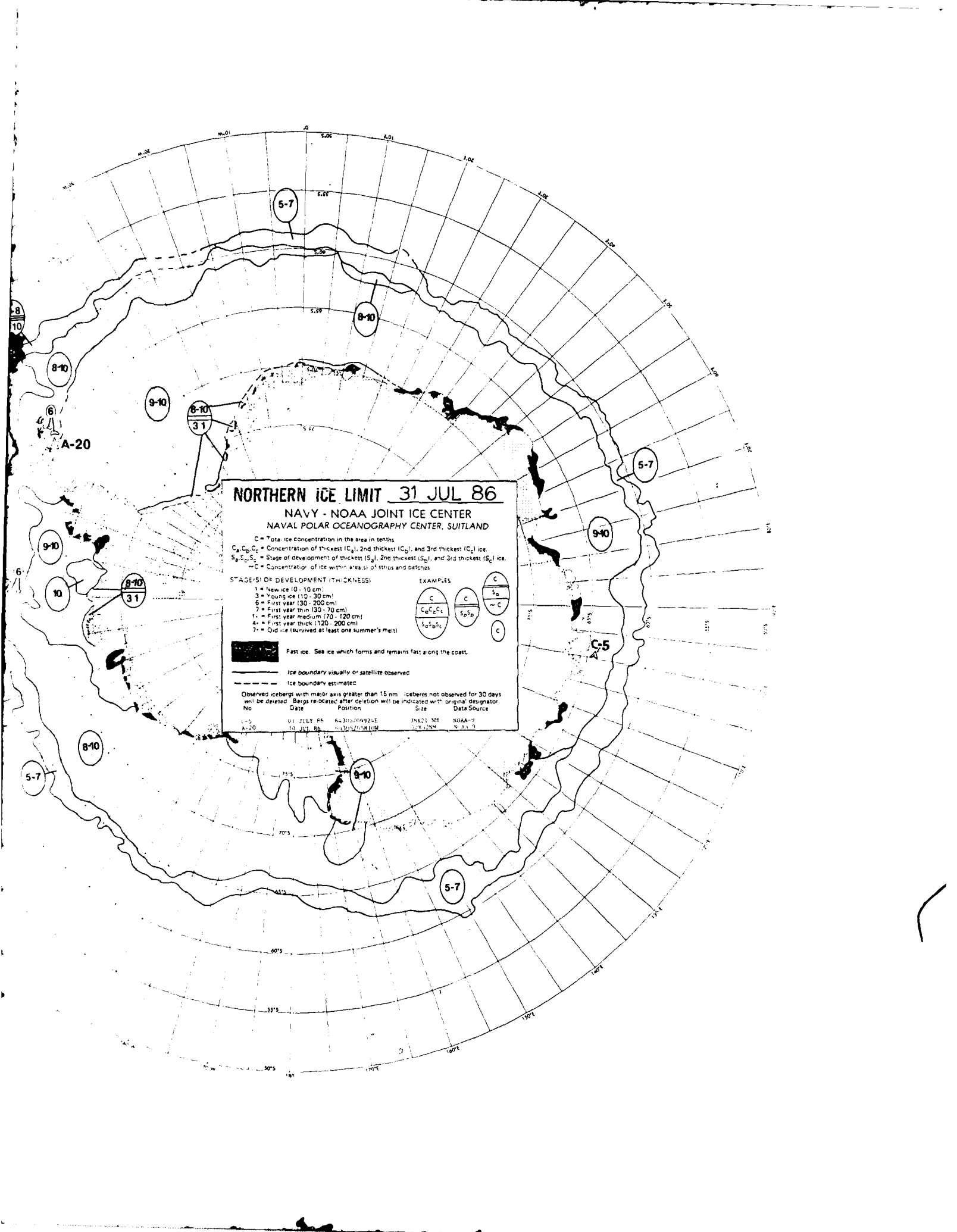
Fast ice - See ice which forms and remains fast along the coast.				
Ice boundary visually or satellite observed				
Ice boundary estimated				
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.				
No.	Date	Position	Size	Data Source
C-5	11 JULY 86	6430S/09924E	38X21 NM	NI-AA-9
A-20	10 JUL 86	7530S/05810W	52X52 NM	NI-AA-4











NORTHERN ICE LIMIT 31 JUL 86

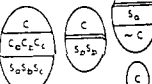
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice
-C = Concentration of ice within area(s) of strips and patches

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 6 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

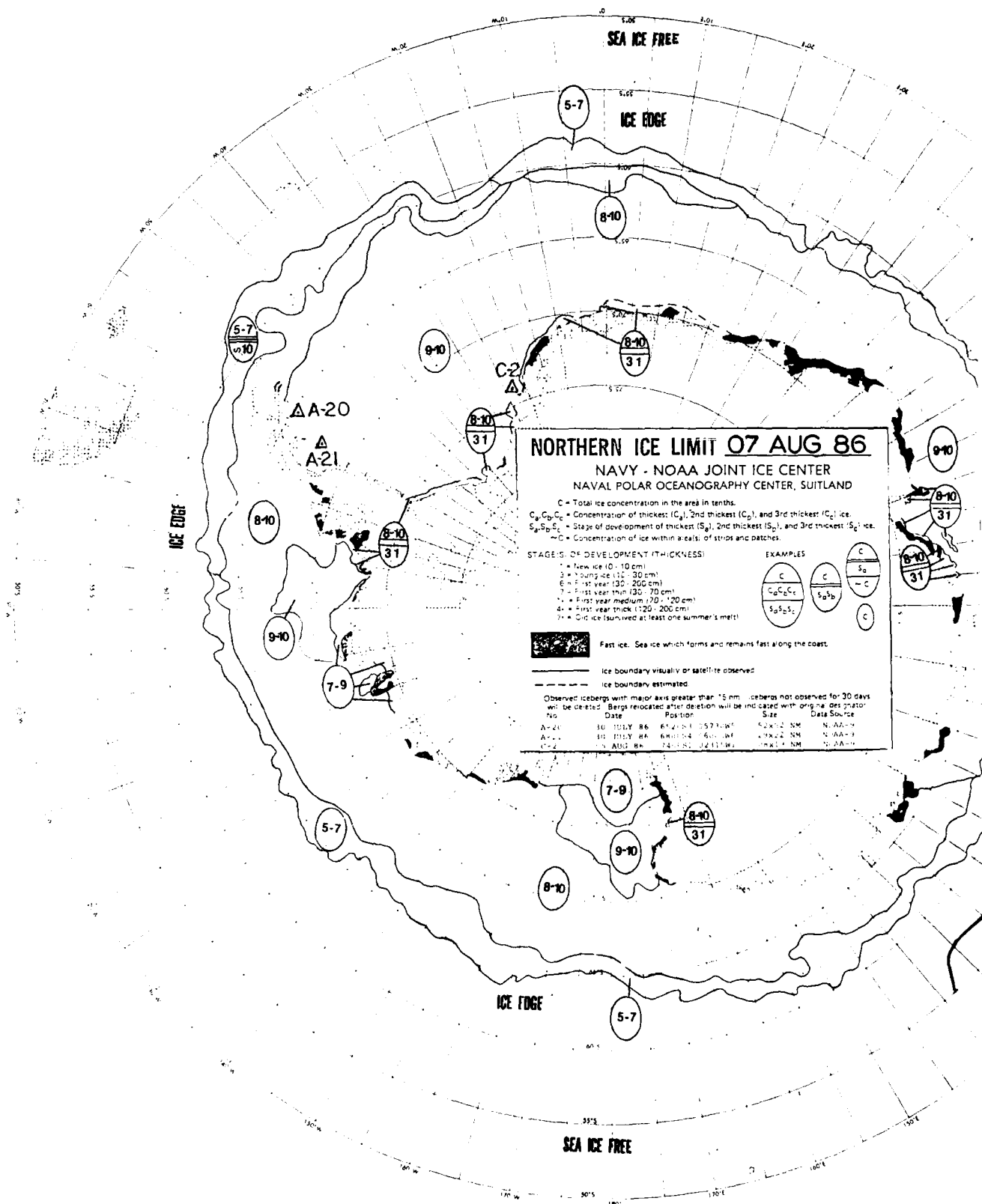


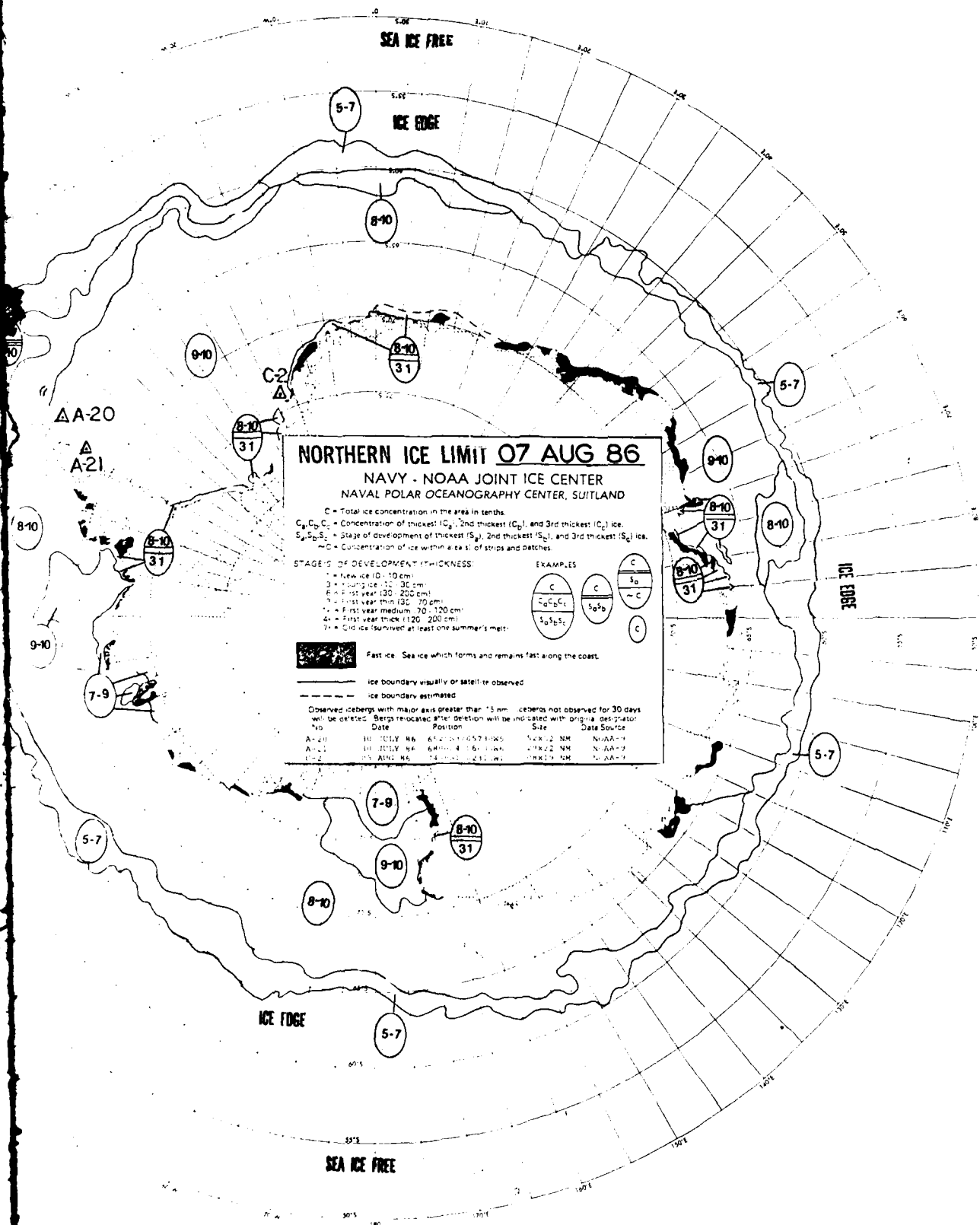
Fast ice: See ice which forms and remains fast along the coast.

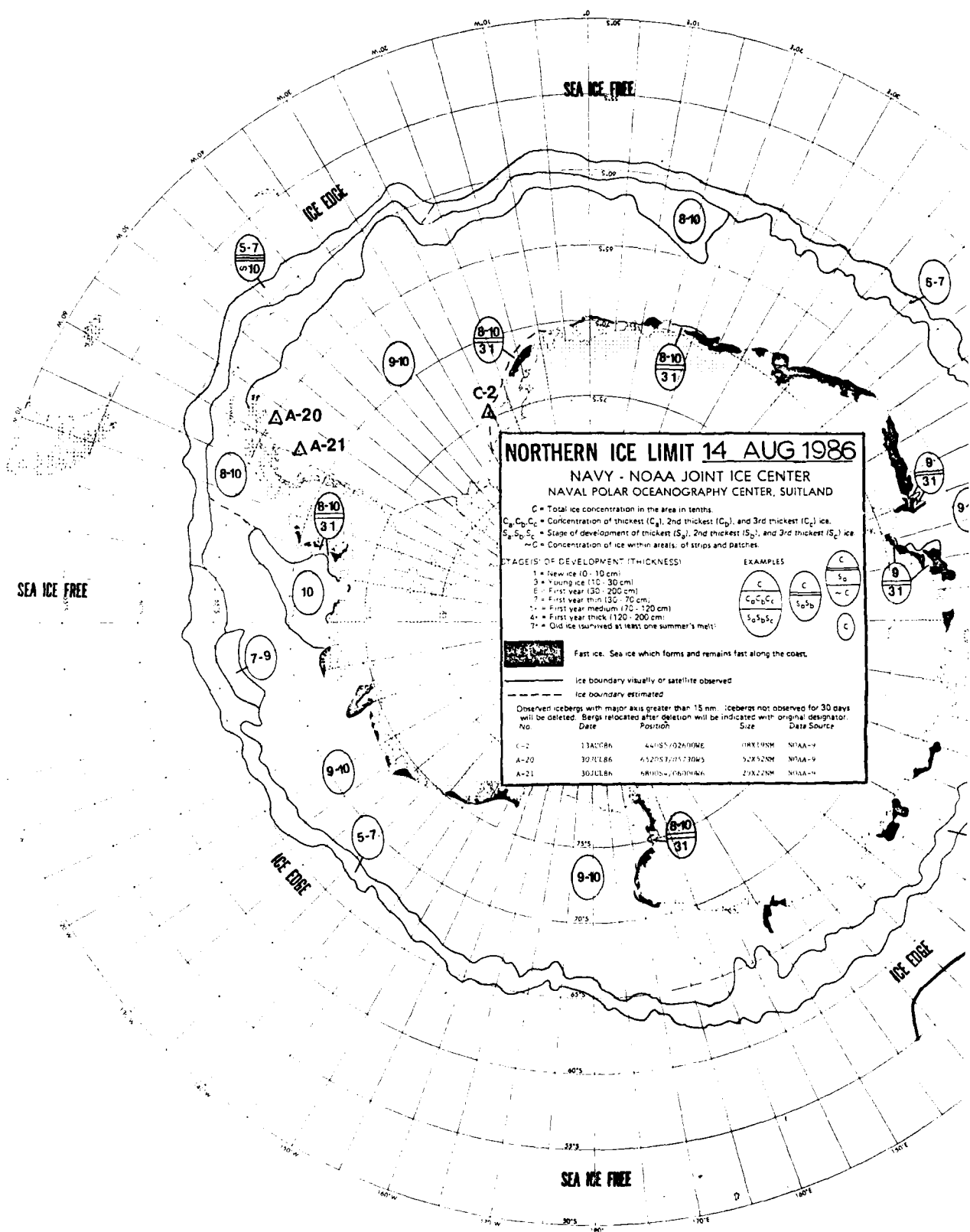
Ice boundary visually or satellite observed
Ice boundary estimated

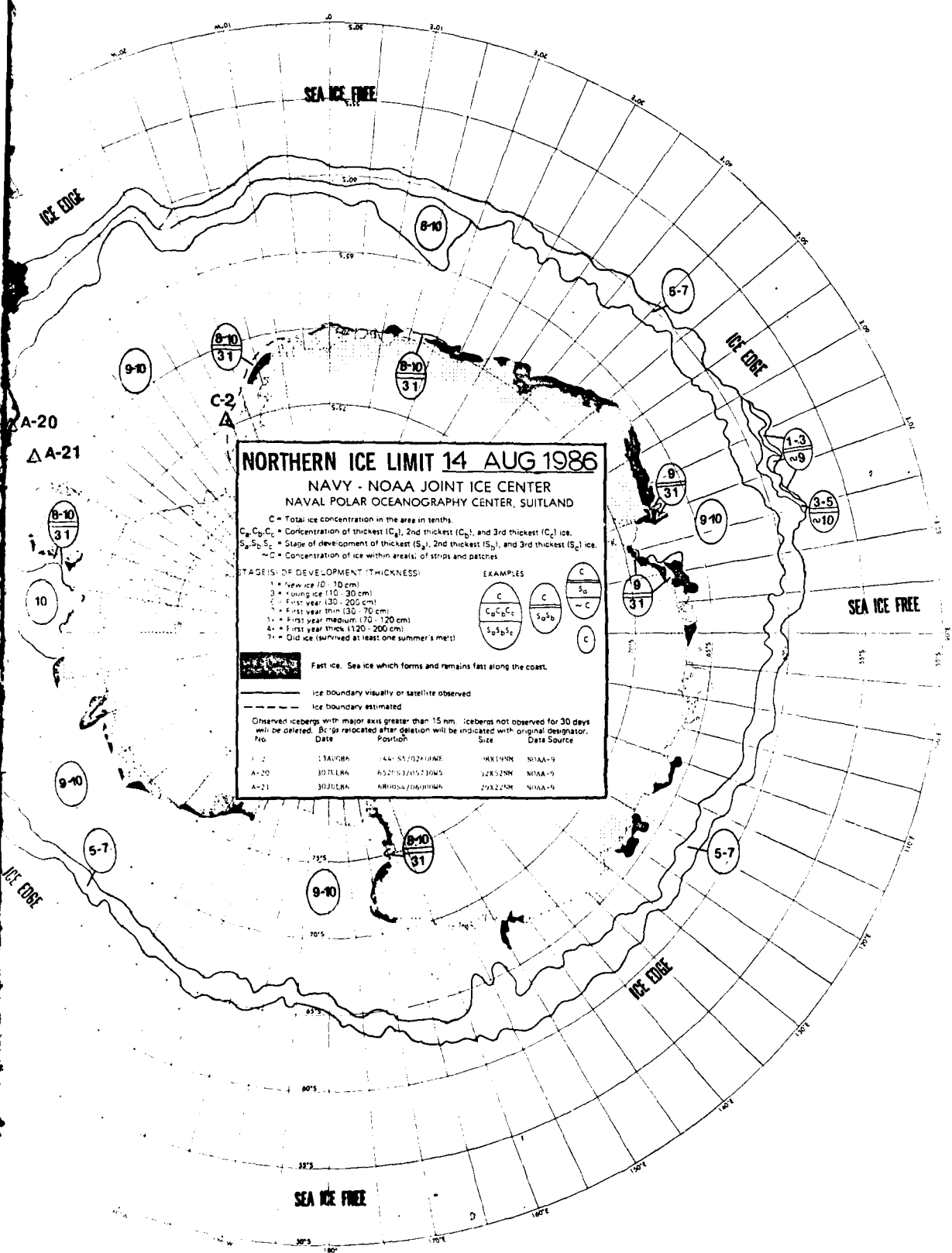
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be dropped. Bergs relocated after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
1-5	01 JULY 86	43305109924E	14X21 NM	NOAA-2
A-20	10 JUL 86	43305109924E	24X25 NM	NOAA-2





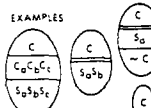




NORTHERN ICE LIMIT 14 AUG 1986

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

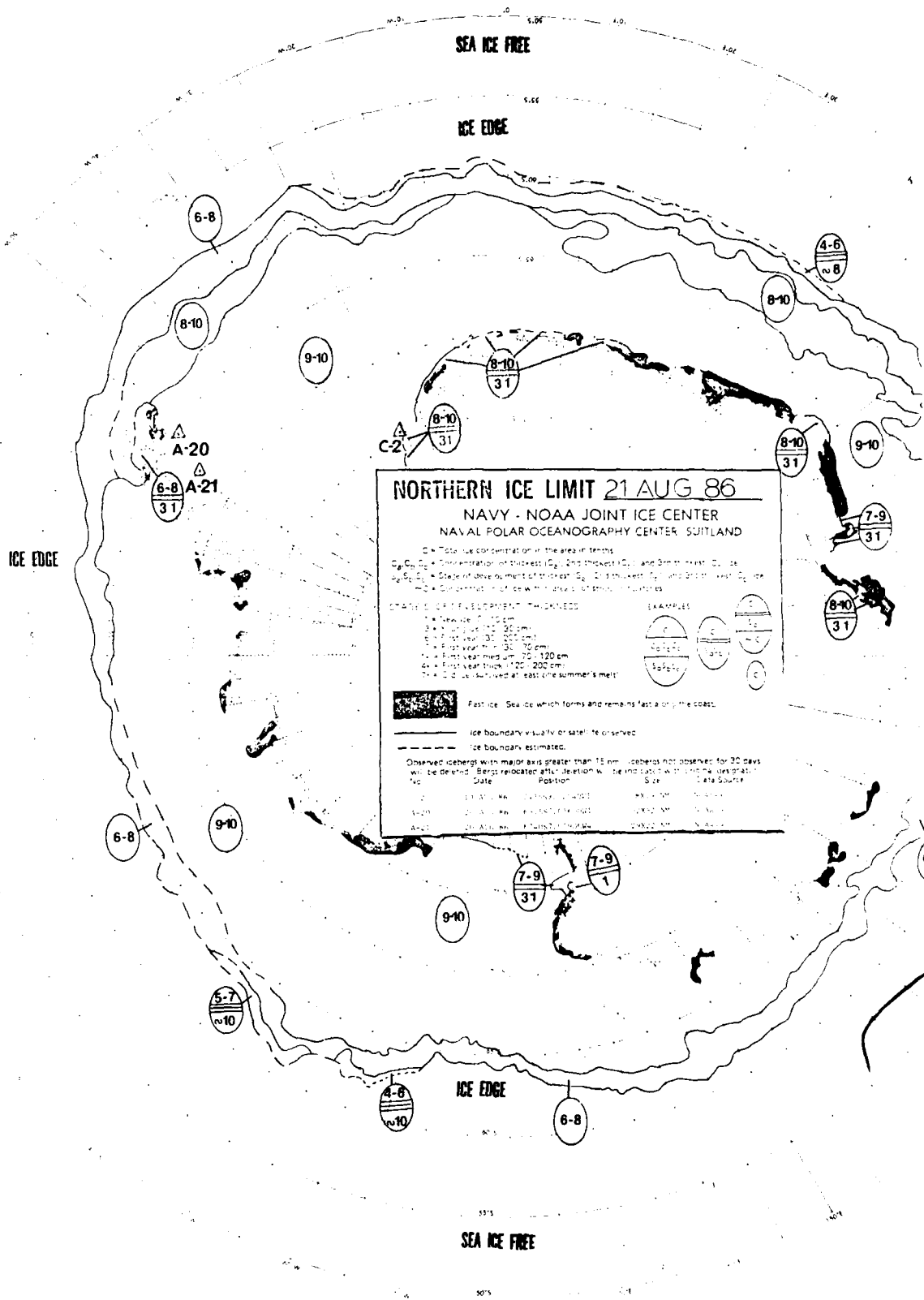
- C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 ~C = Concentration of ice within areas, of strips and patches.
- STAGES OF DEVELOPMENT (THICKNESS):
 1 = New ice (10 - 10 cm)
 2 = Young ice (10 - 30 cm)
 3 = First year (30 - 200 cm)
 4 = First year thin (30 - 70 cm)
 5 = First year medium (70 - 120 cm)
 6 = First year thick (120 - 200 cm)
 7 = Old ice (survived at least one summer's melt)

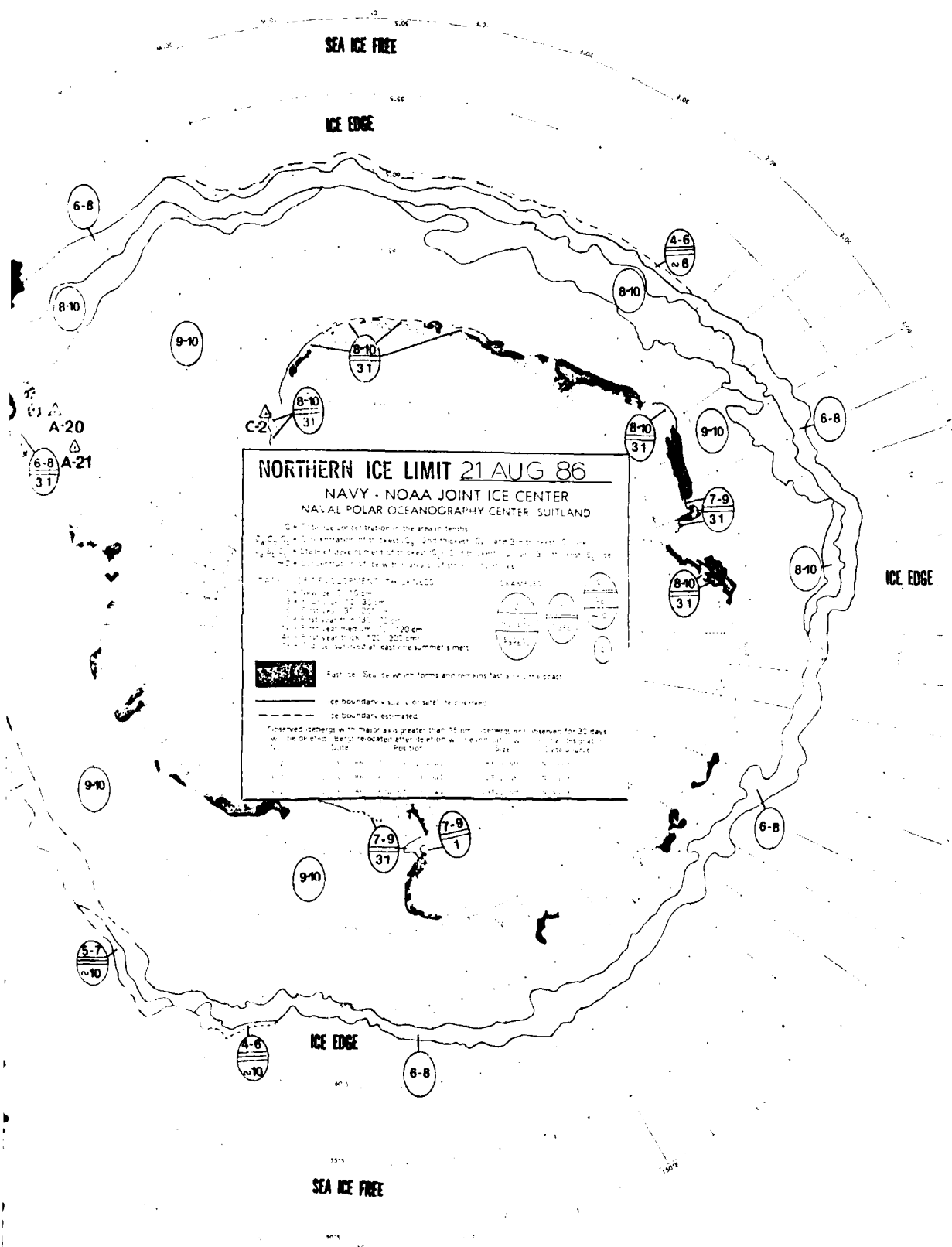


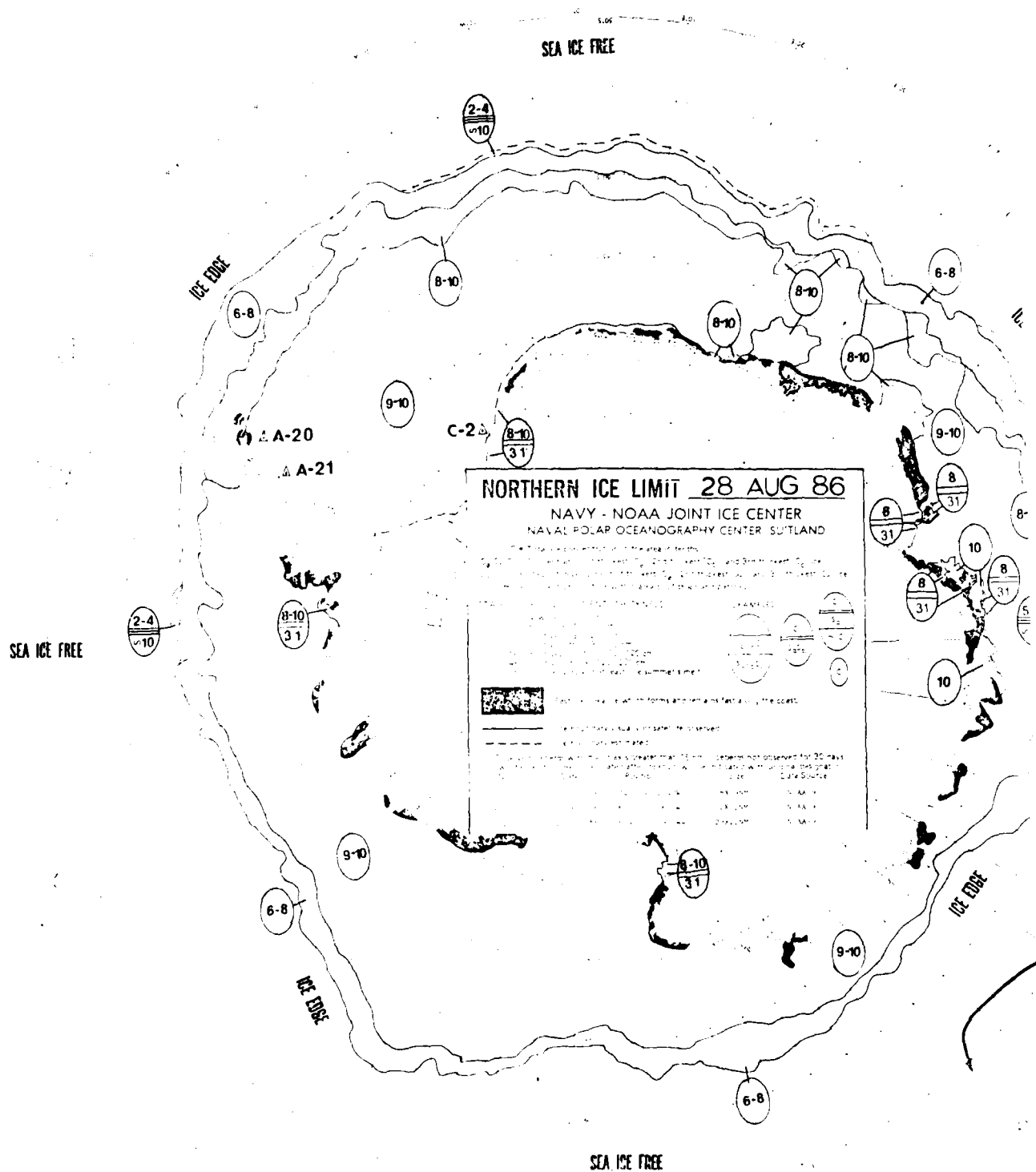
Fast ice. Sea ice which forms and remains fast along the coast.
 --- ice boundary visually or satellite observed
 - - - - - ice boundary estimated

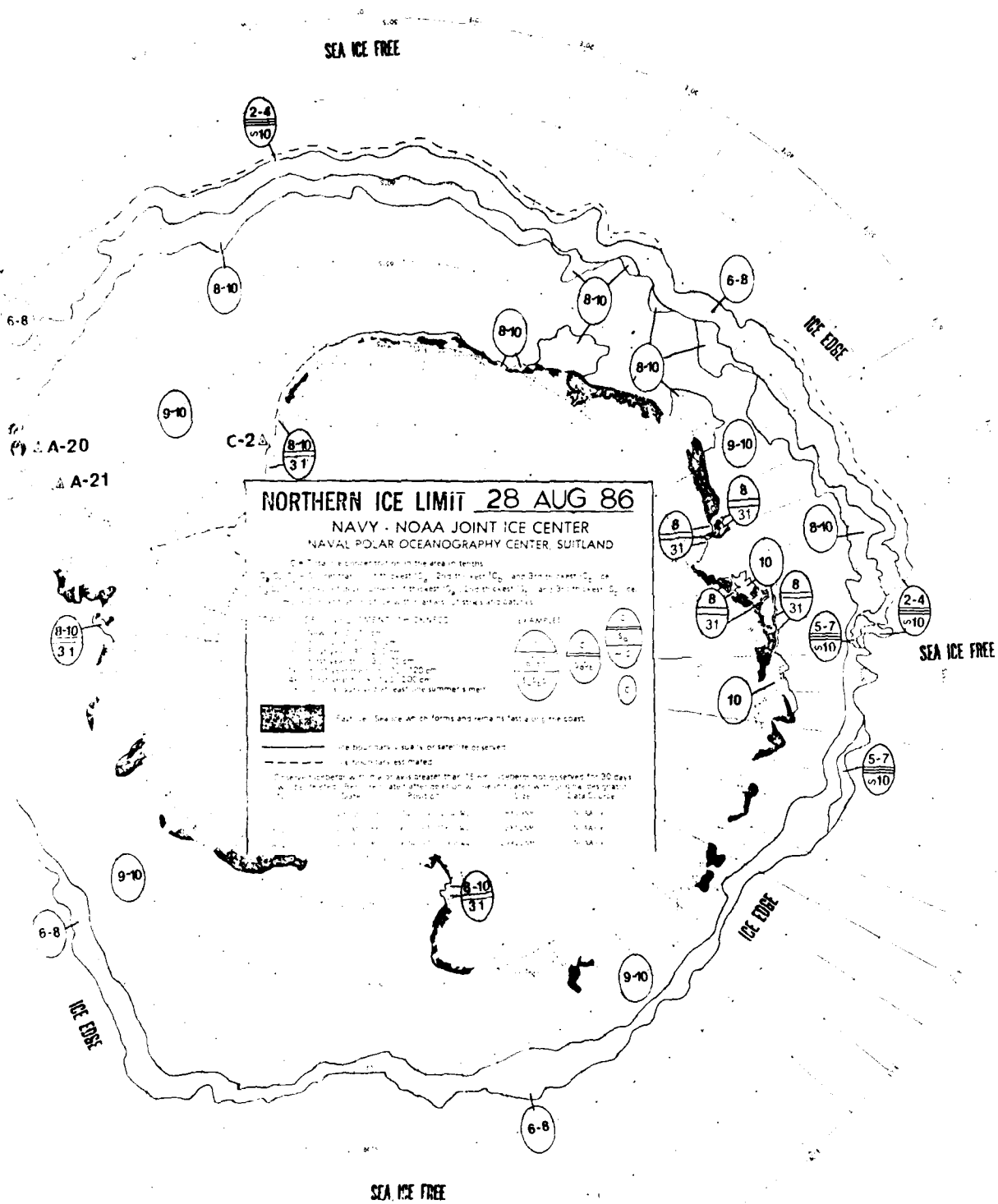
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

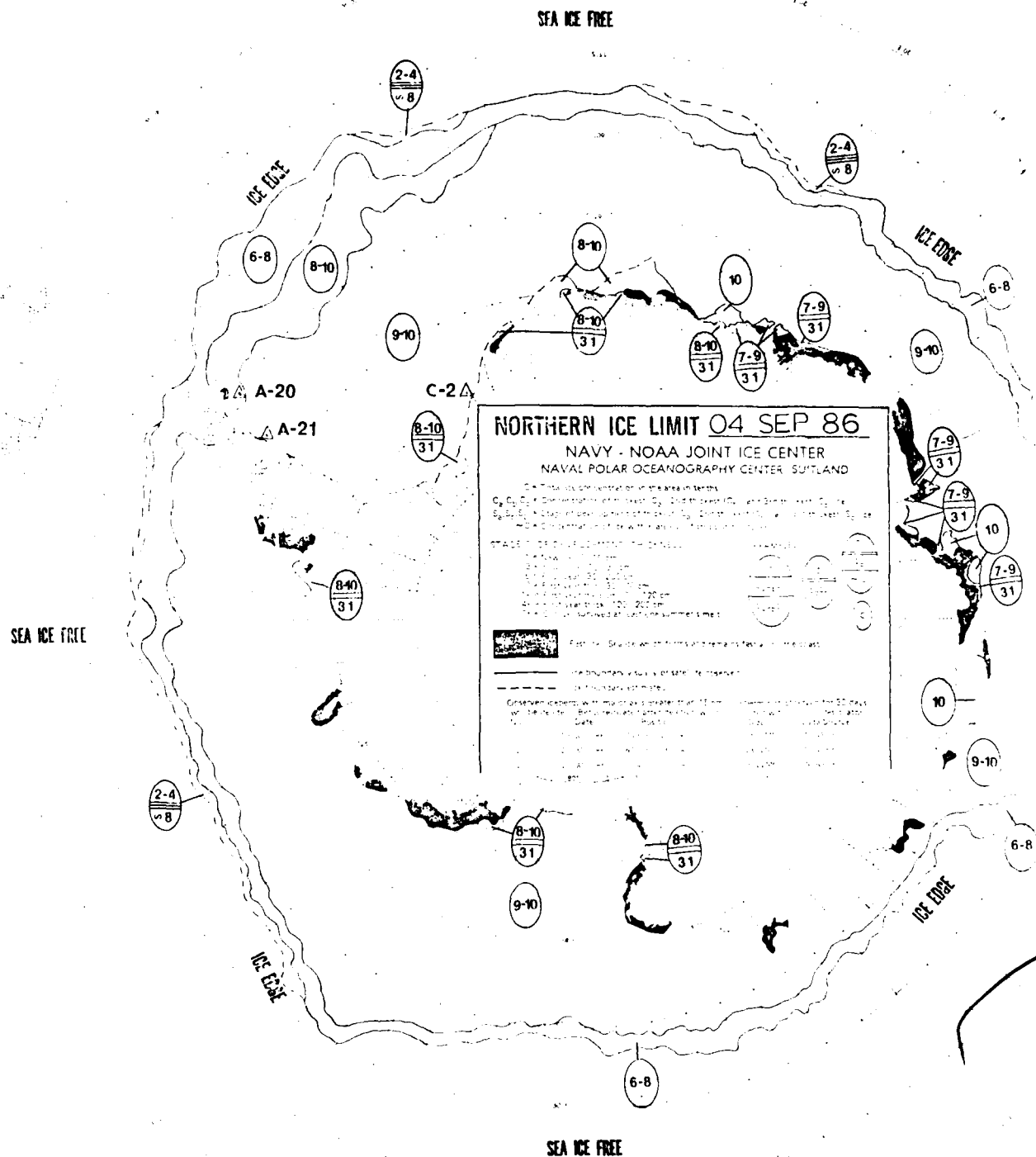
No.	Date	Position	Size	Data Source
1-2	11 AUG 86	64° 55' 02" N 160° 00' 00" E	100 x 100 NM	NOAA-9
A-20	10 JUL 86	65° 21' 53" N 157° 10' 00" W	12 x 52 NM	NOAA-9
A-21	10 JUL 86	66° 03' 54" N 156° 00' 00" W	20 x 22 NM	NOAA-9

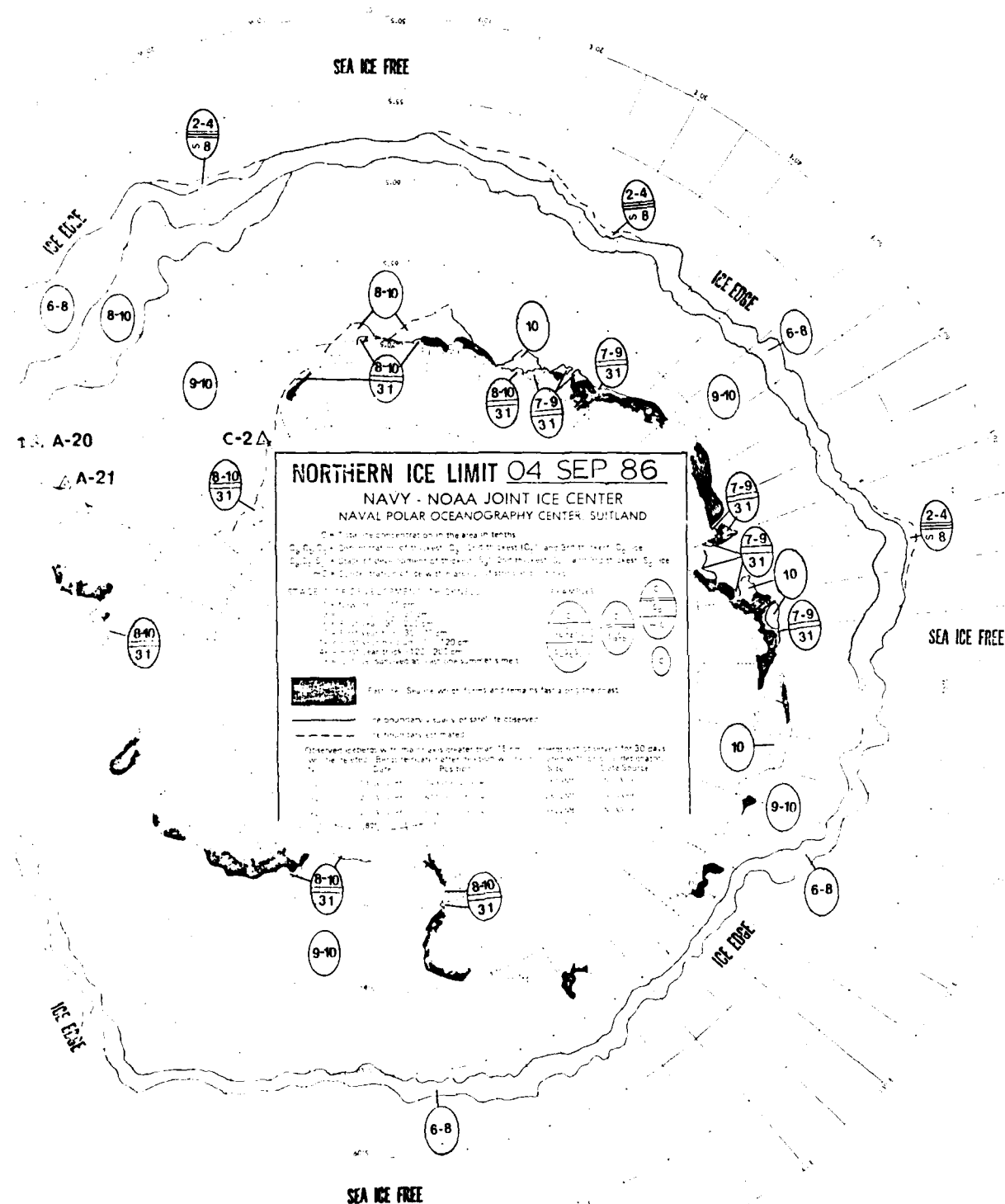


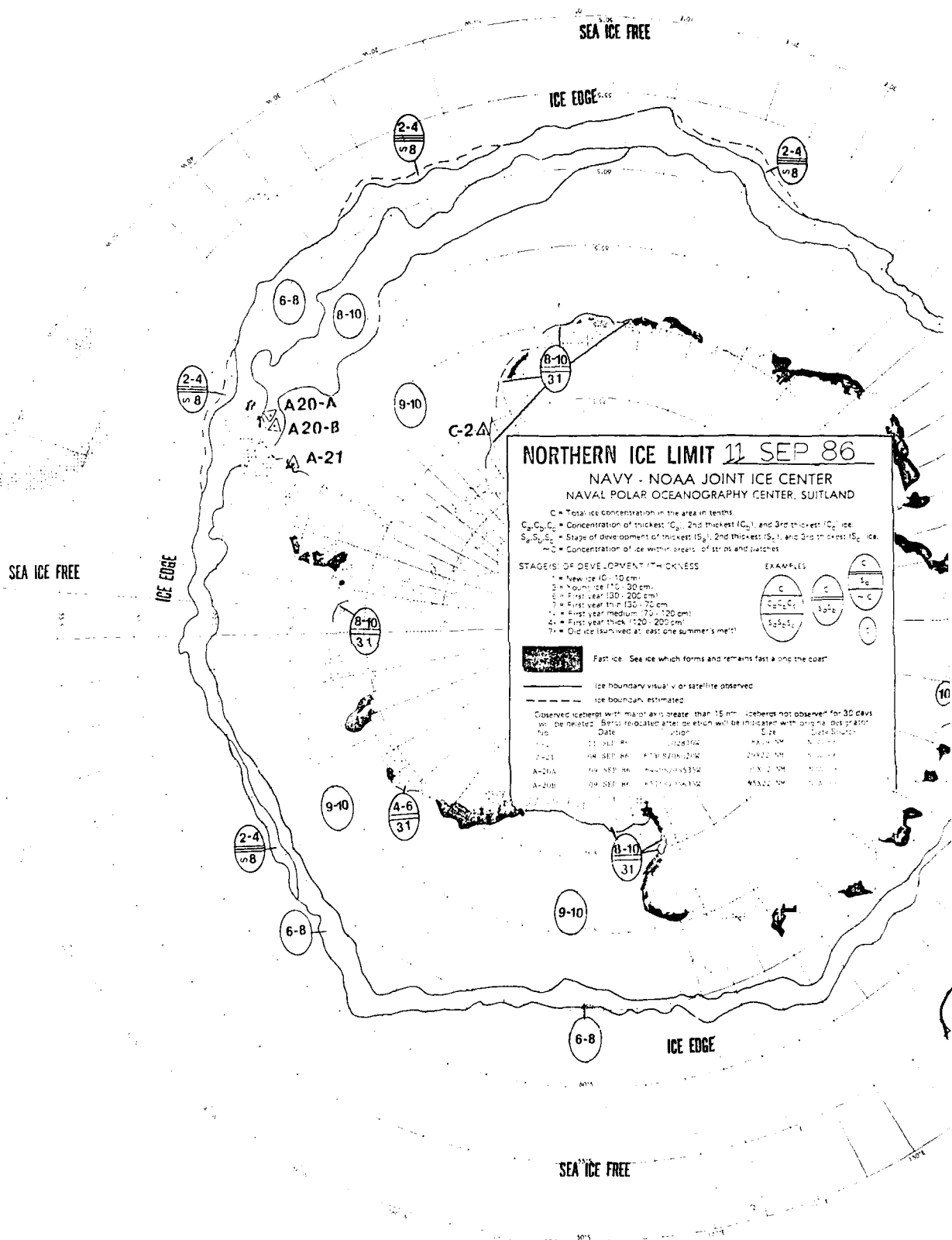


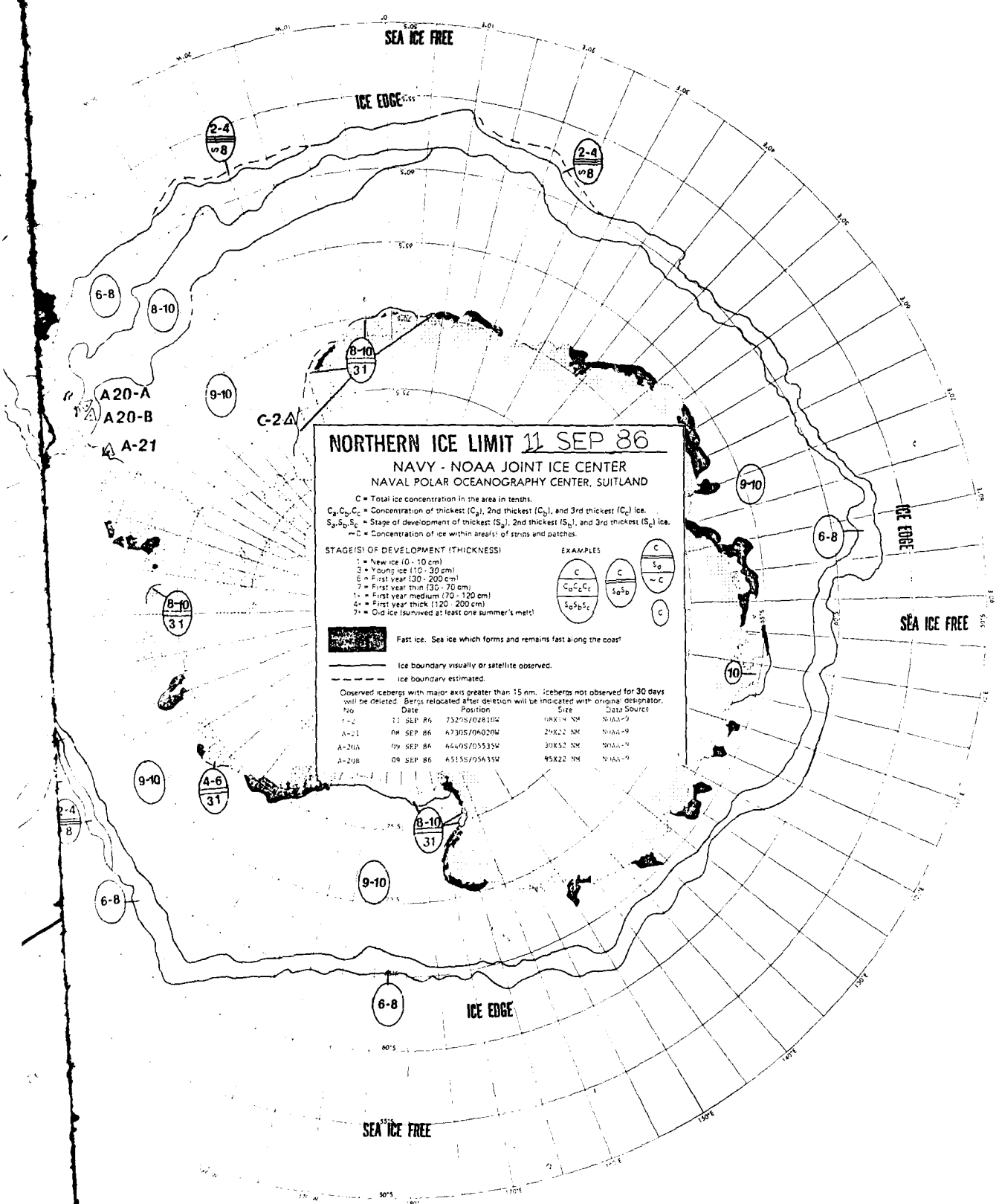


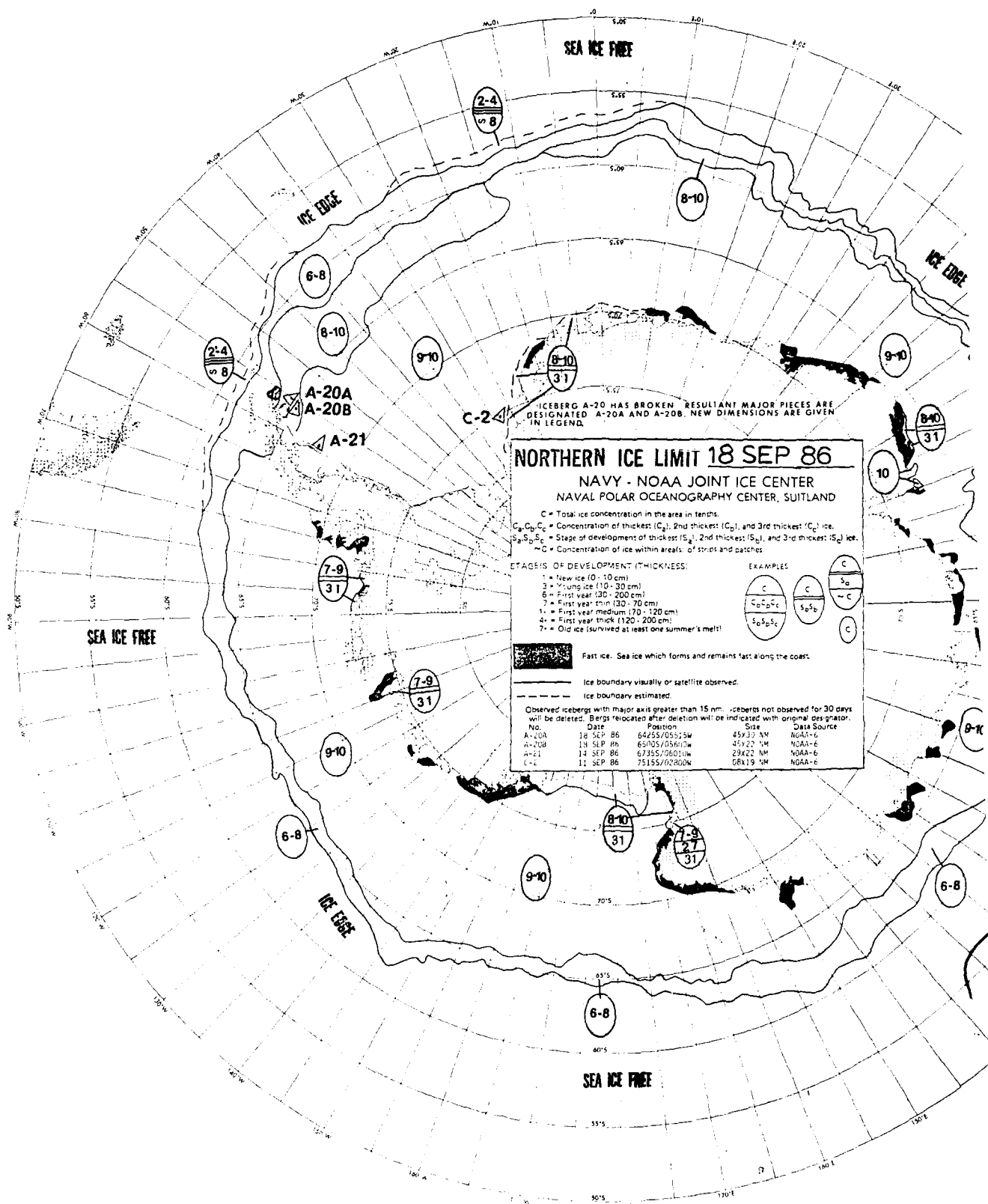


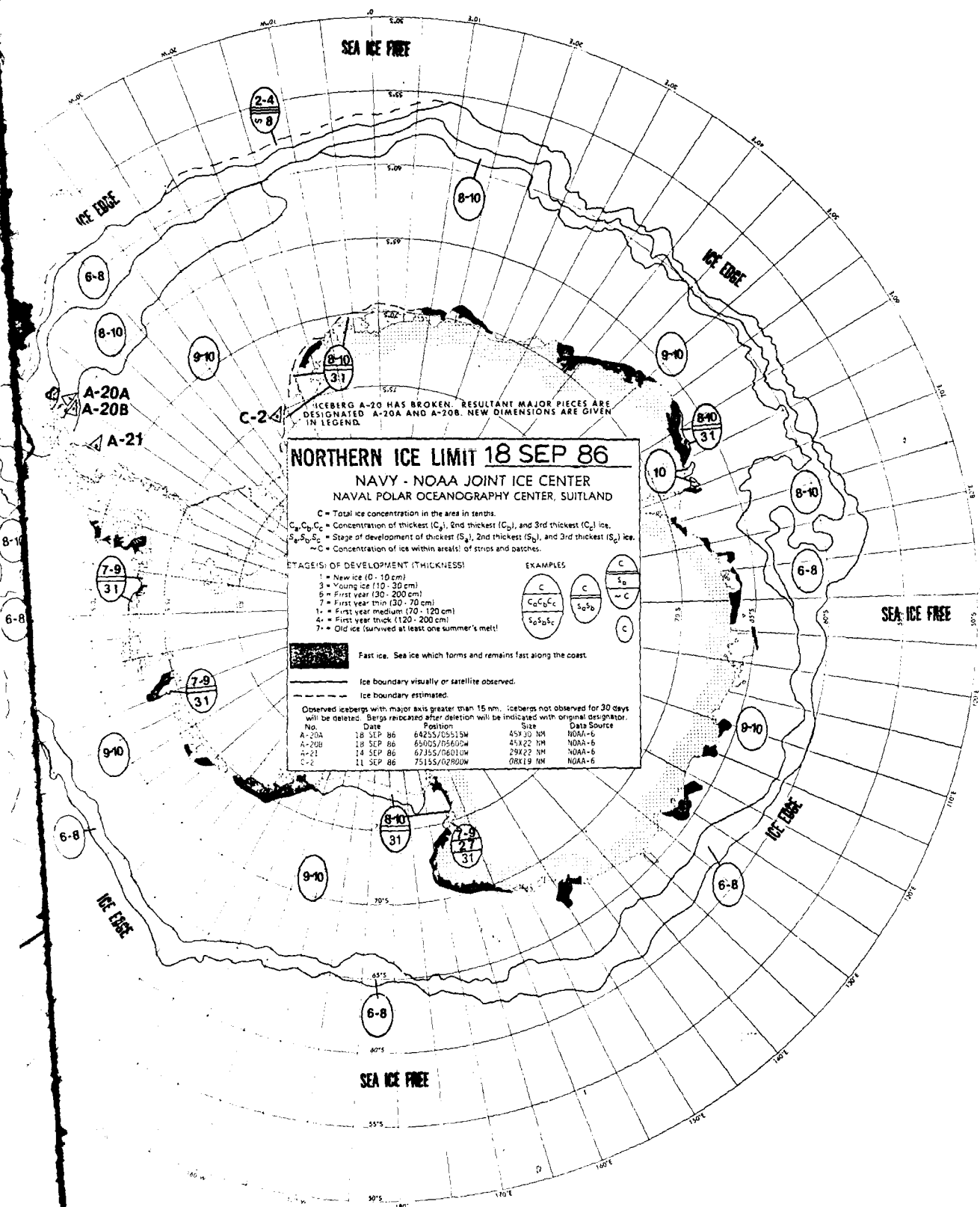


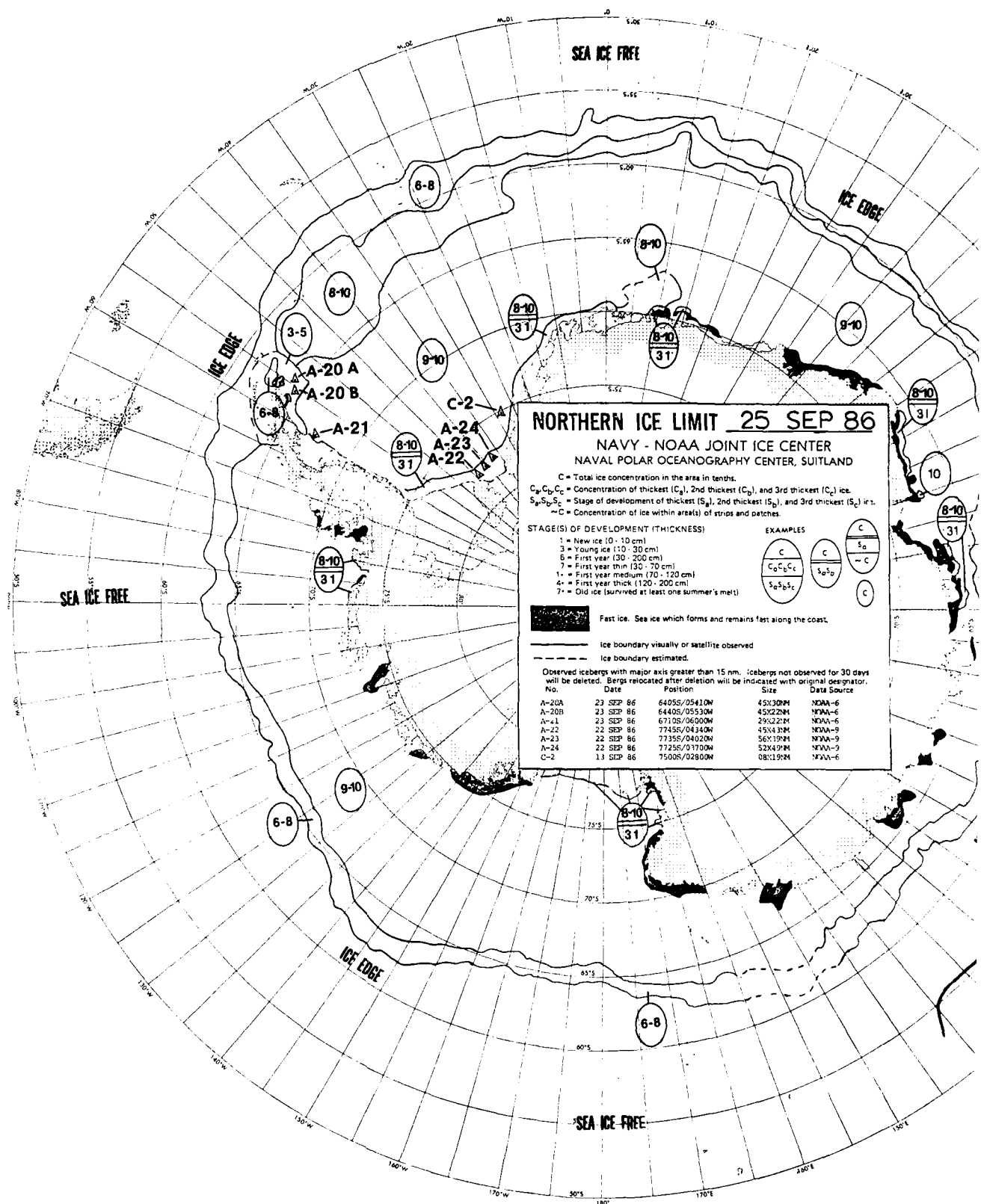


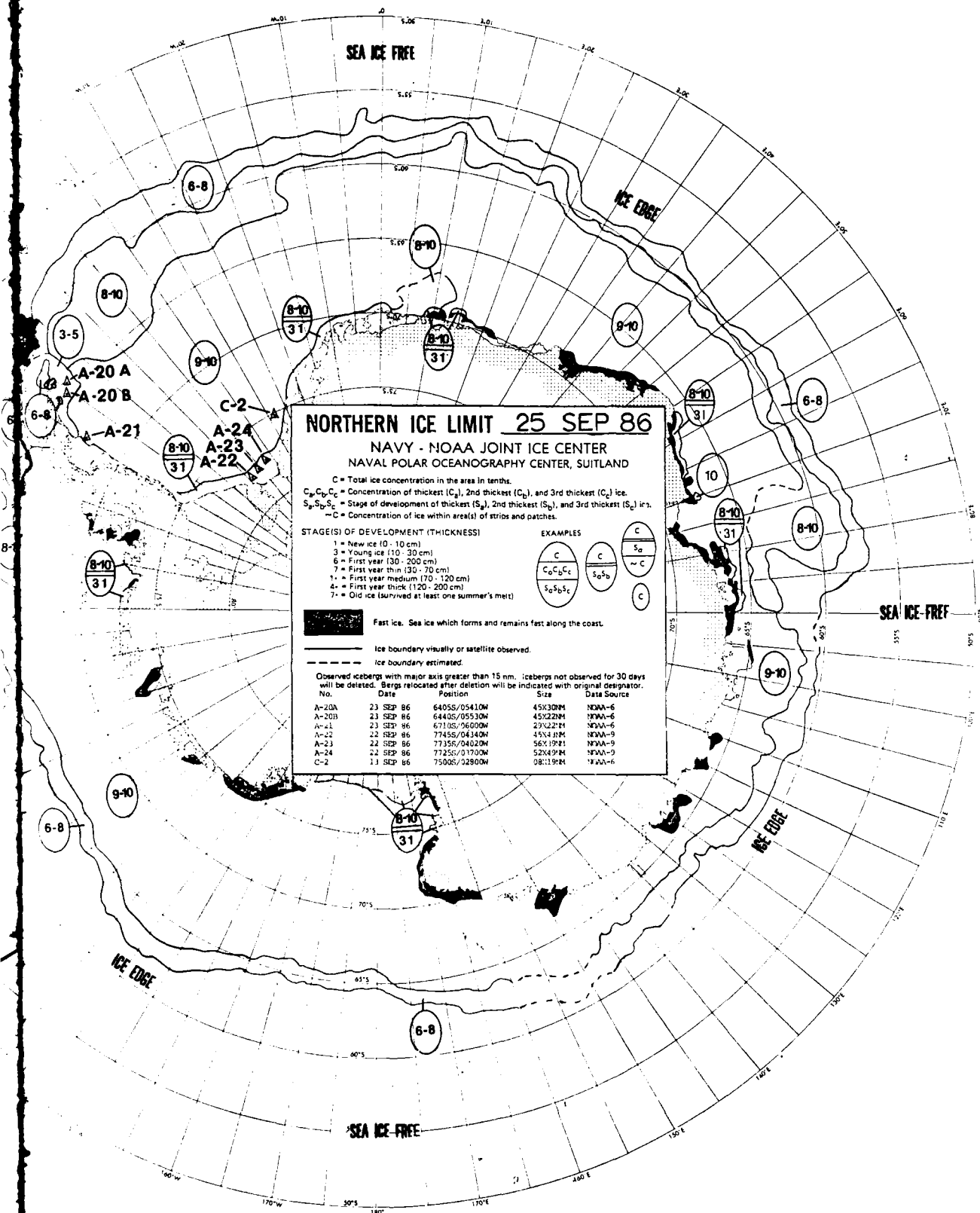


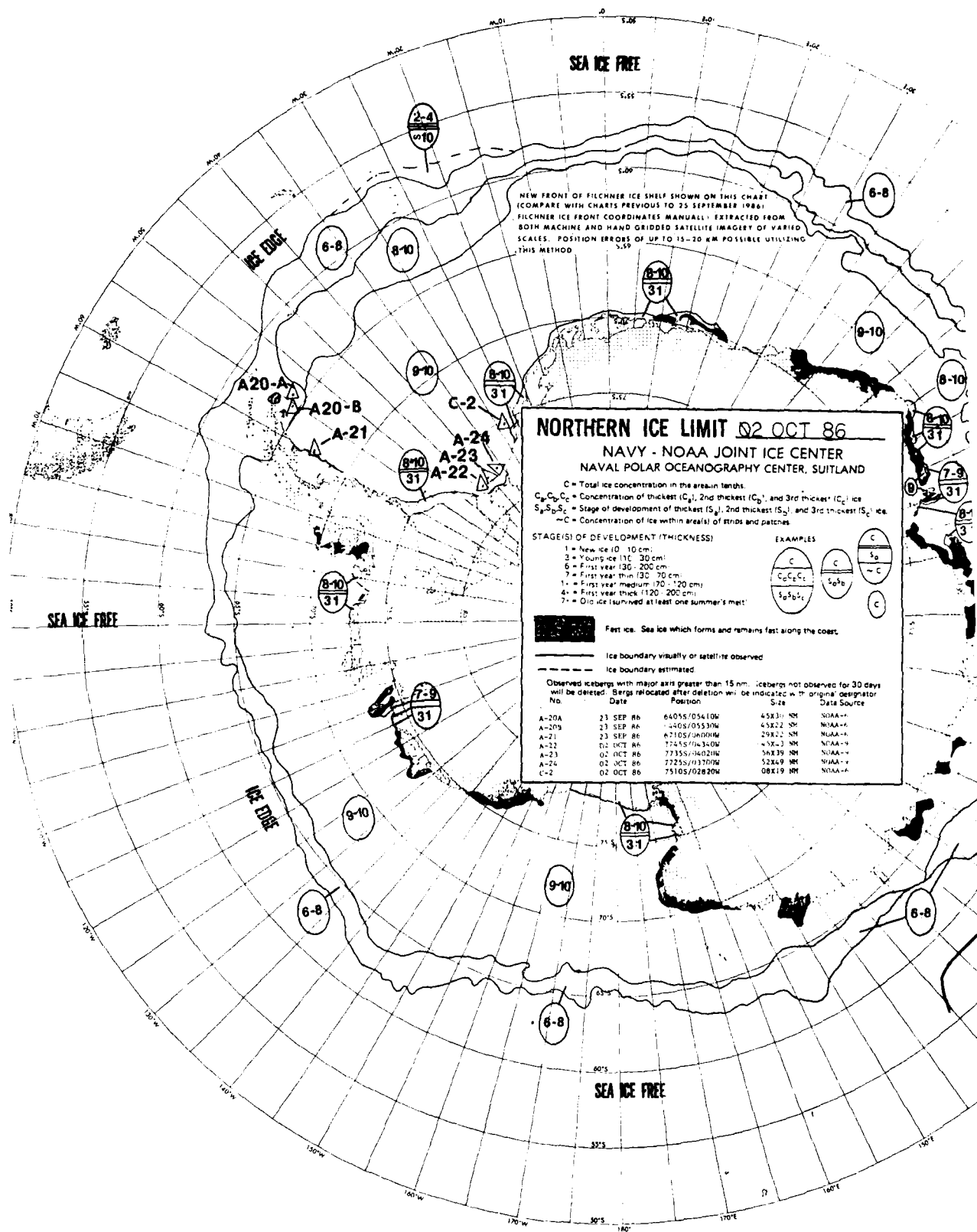


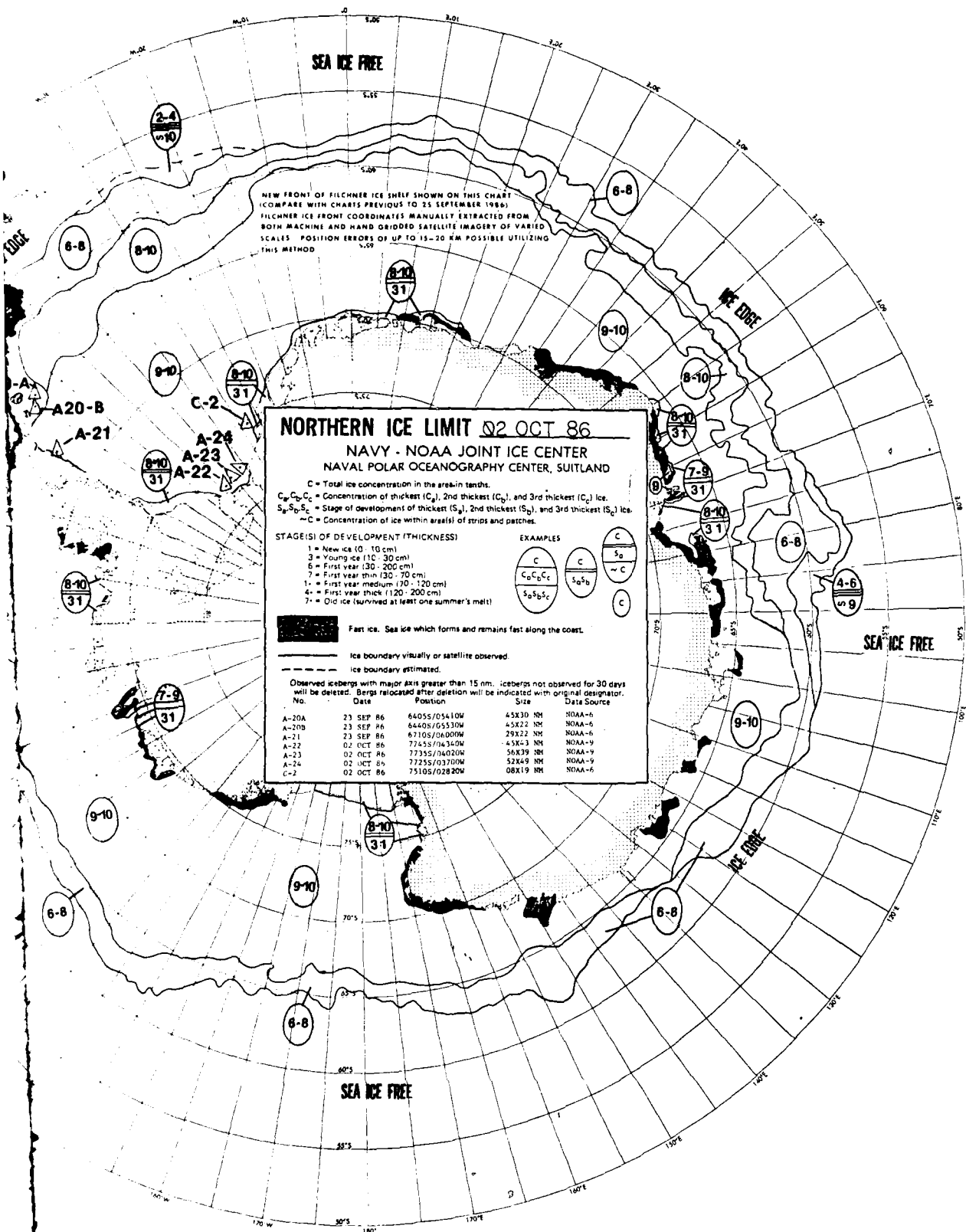


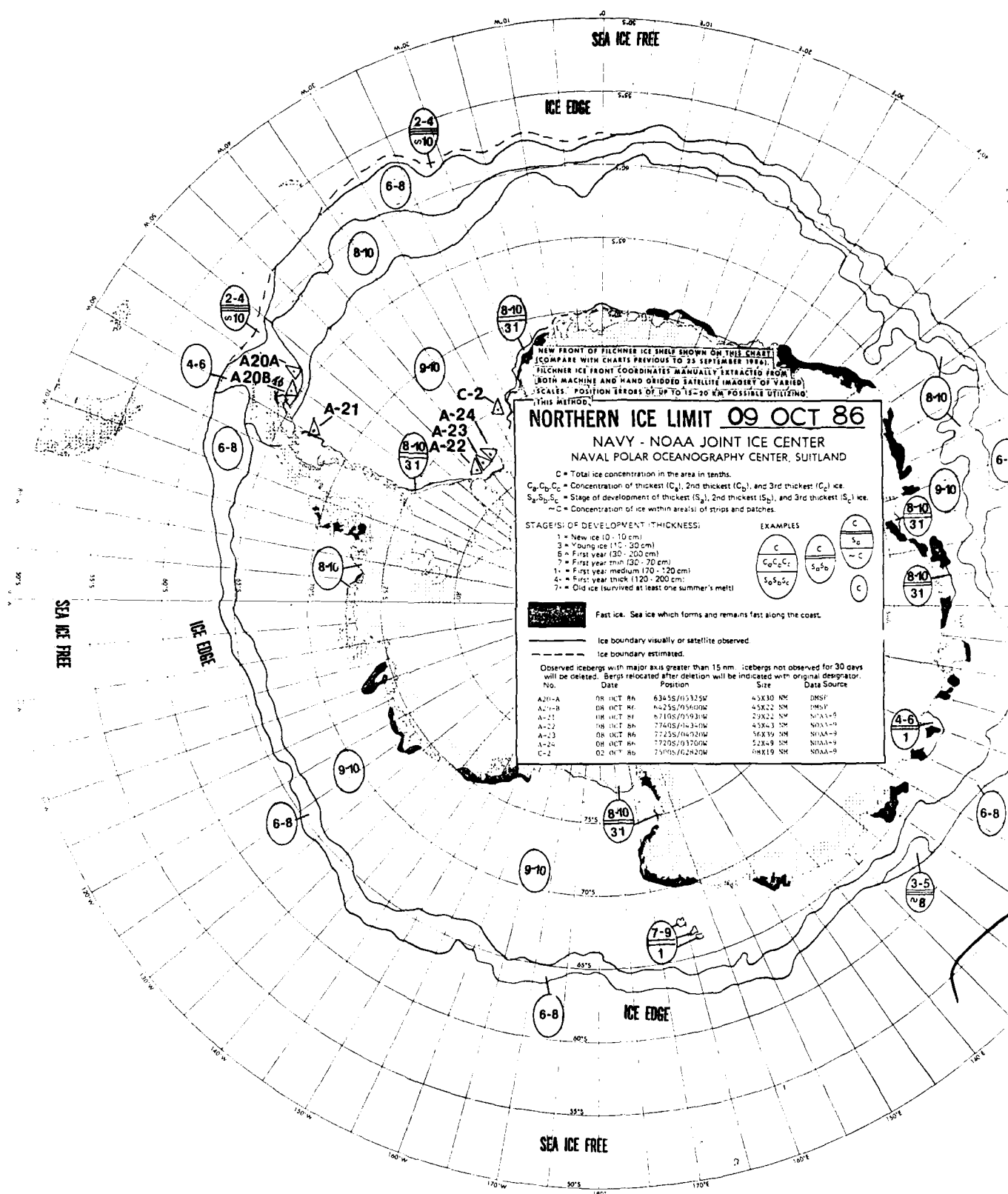


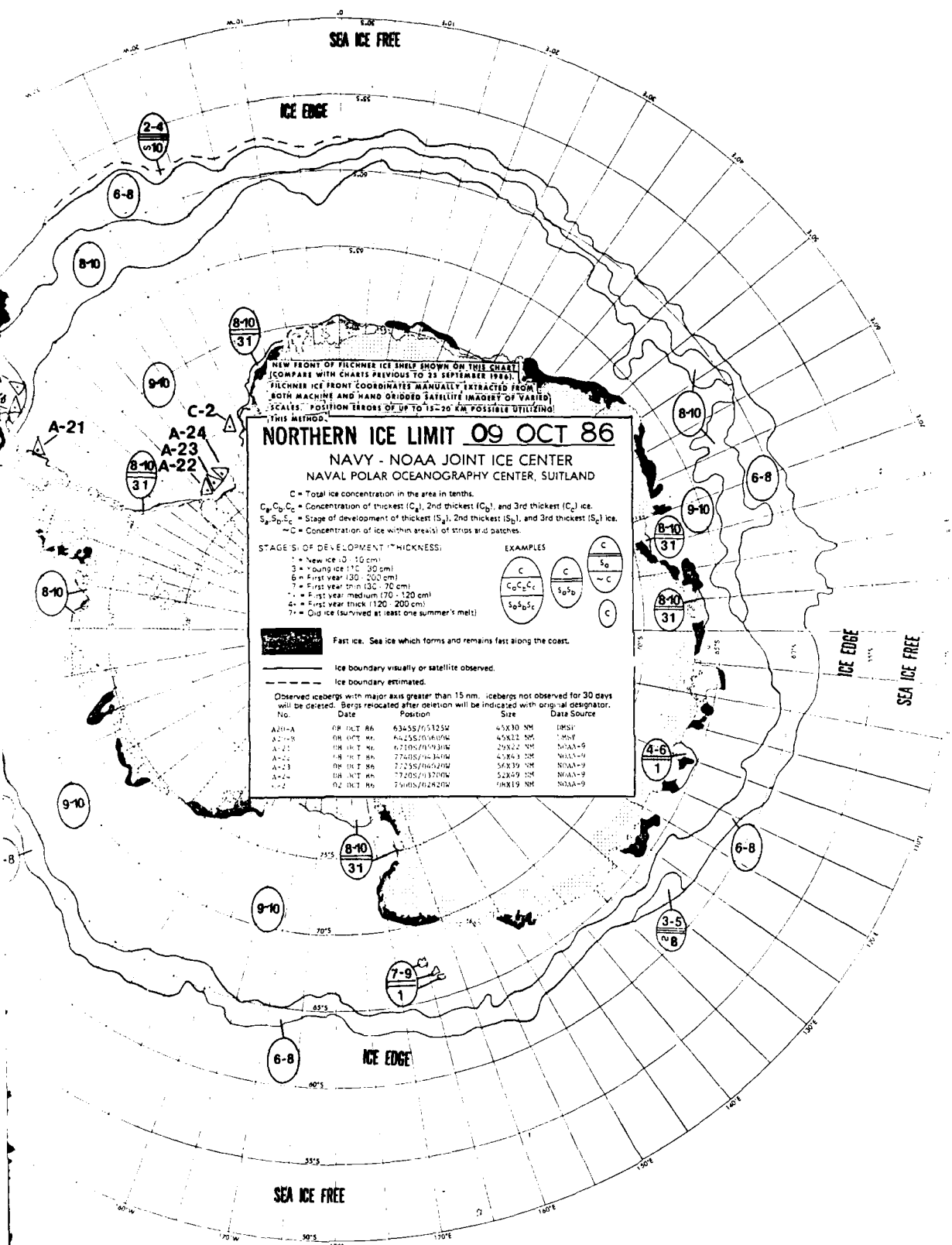


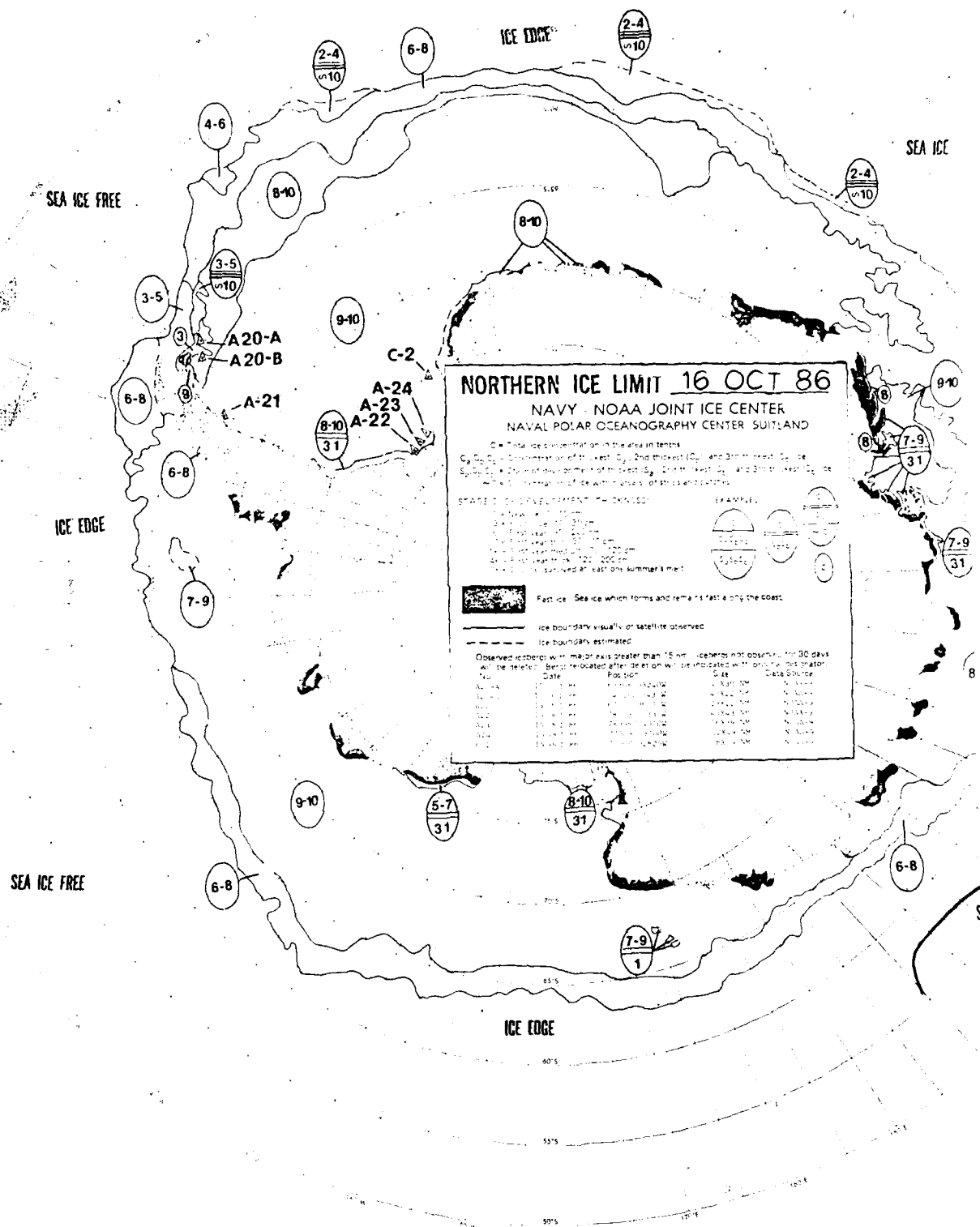


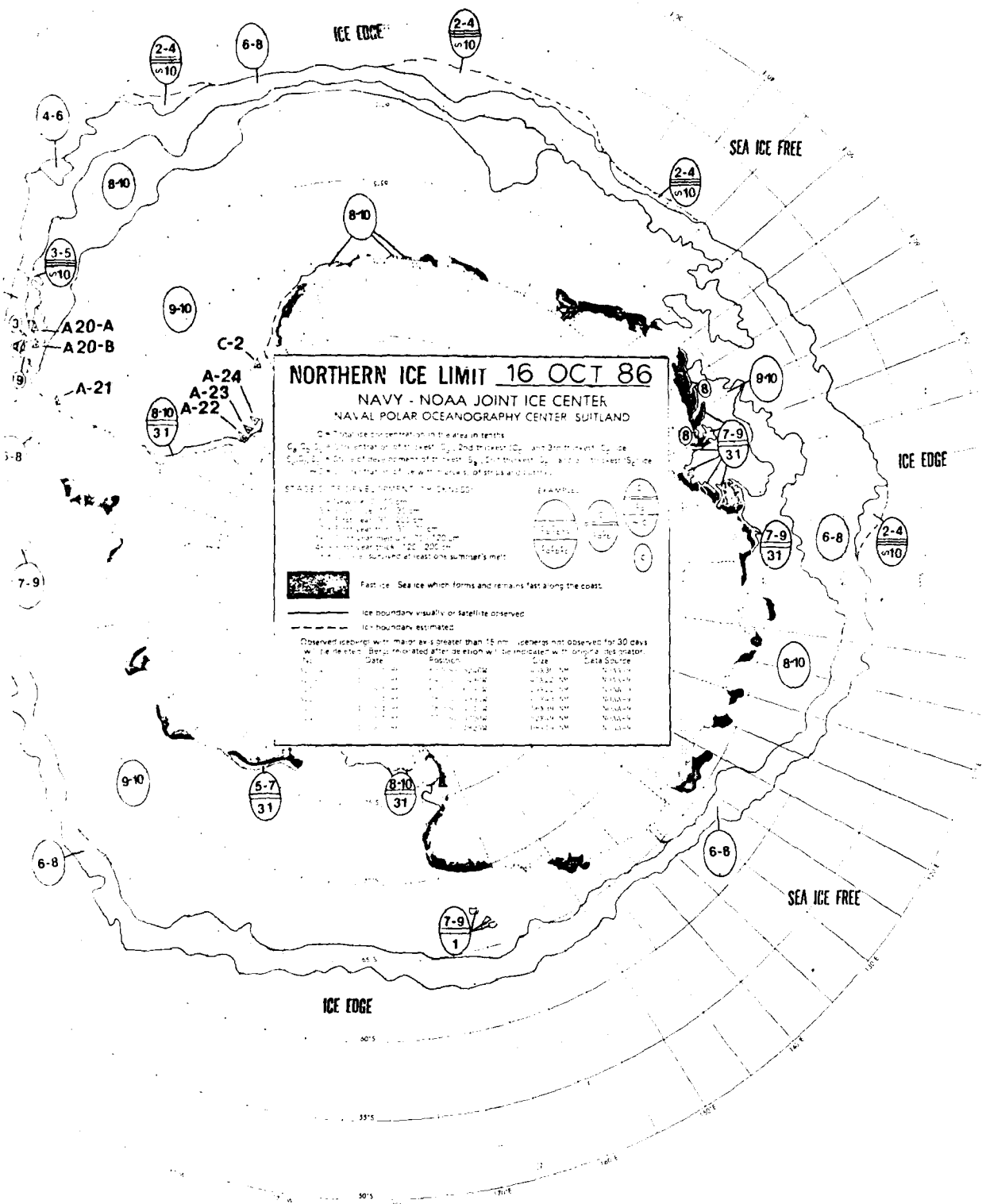


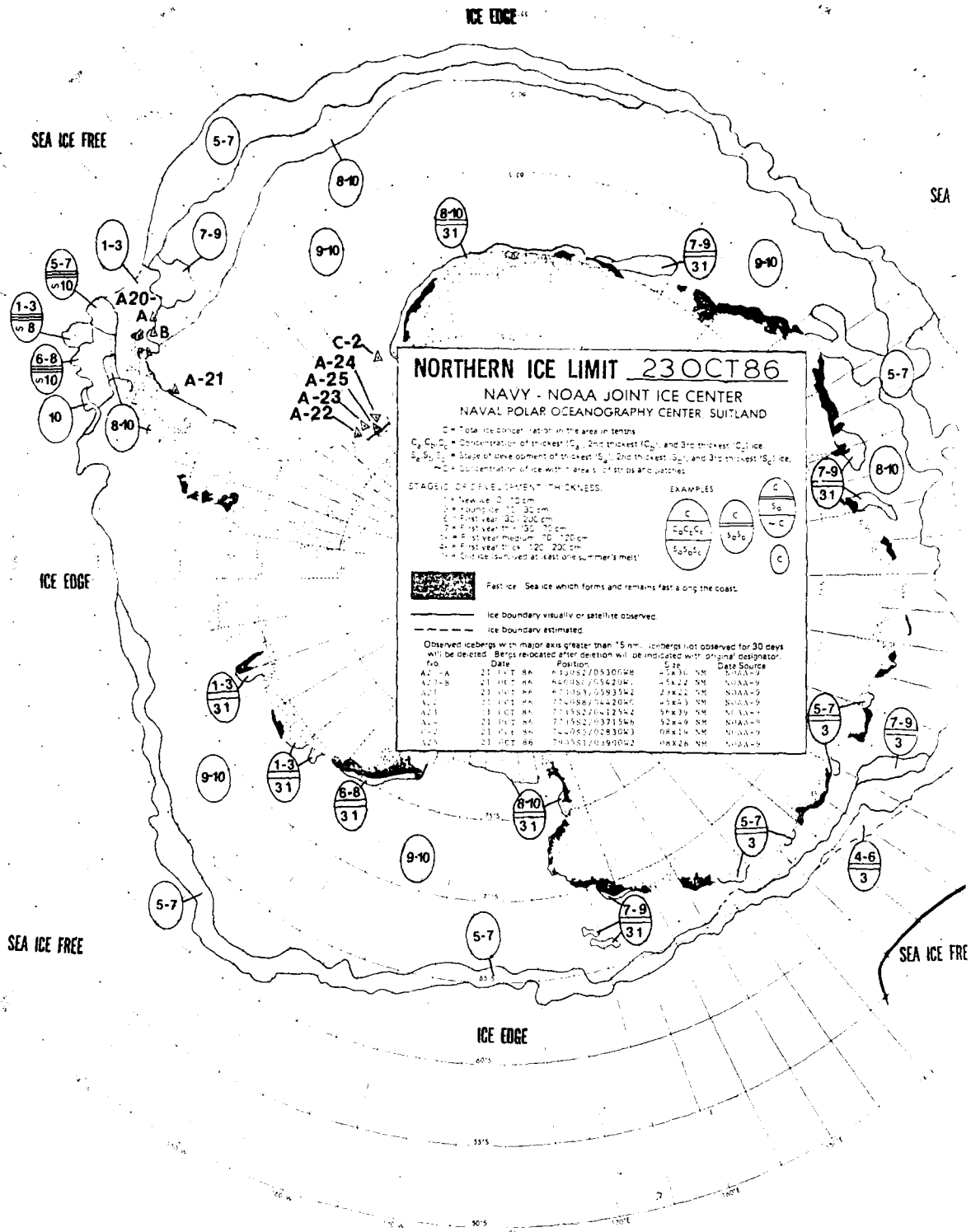


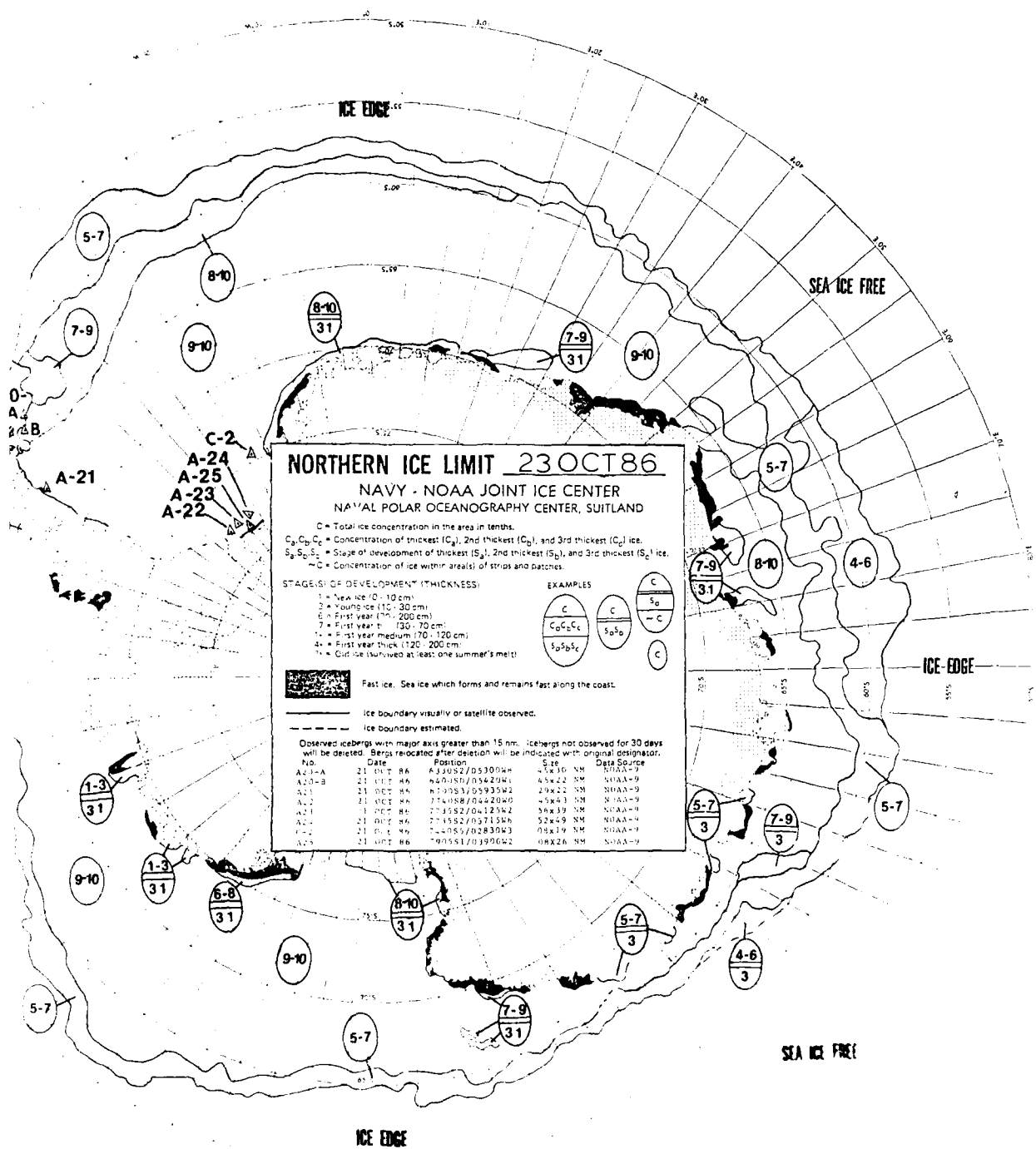












AD-A184 102

ANTARCTIC ICE CHARTS 1985-1986(U) NAVAL POLAR
OCEANOGRAPHY CENTER WASHINGTON DC AUG 87

3/3

UNCLASSIFIED

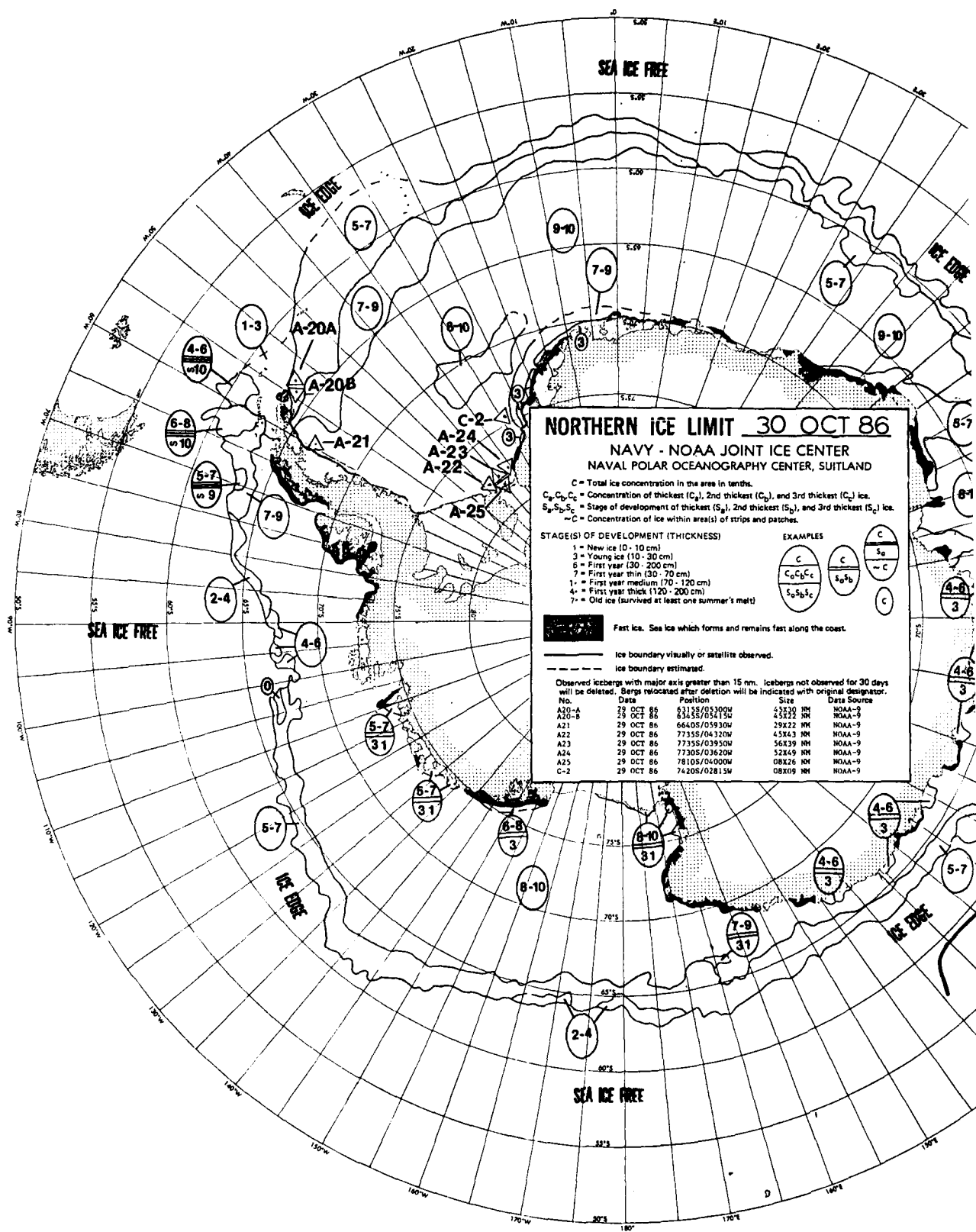
PAG 3/12

NL





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



NORTHERN ICE LIMIT 30 OCT 86

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

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within area(s) of strips and patches.

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- 1 = New ice (0 - 10 cm)
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 - 7 = First year thin (30 - 70 cm)
 - 1 = First year medium (70 - 120 cm)
 - 4 = First year thick (120 - 200 cm)
 - 7 = Old ice (survived at least one summer's melt)

EXAMPLES

$\frac{C}{C_1C_2C_3}$ $\frac{C}{S_1S_2S_3}$ $\frac{C}{S_1}$ $\frac{C}{S_2}$ $\frac{C}{S_3}$ $\frac{C}{C_1}$ $\frac{C}{C_2}$ $\frac{C}{C_3}$

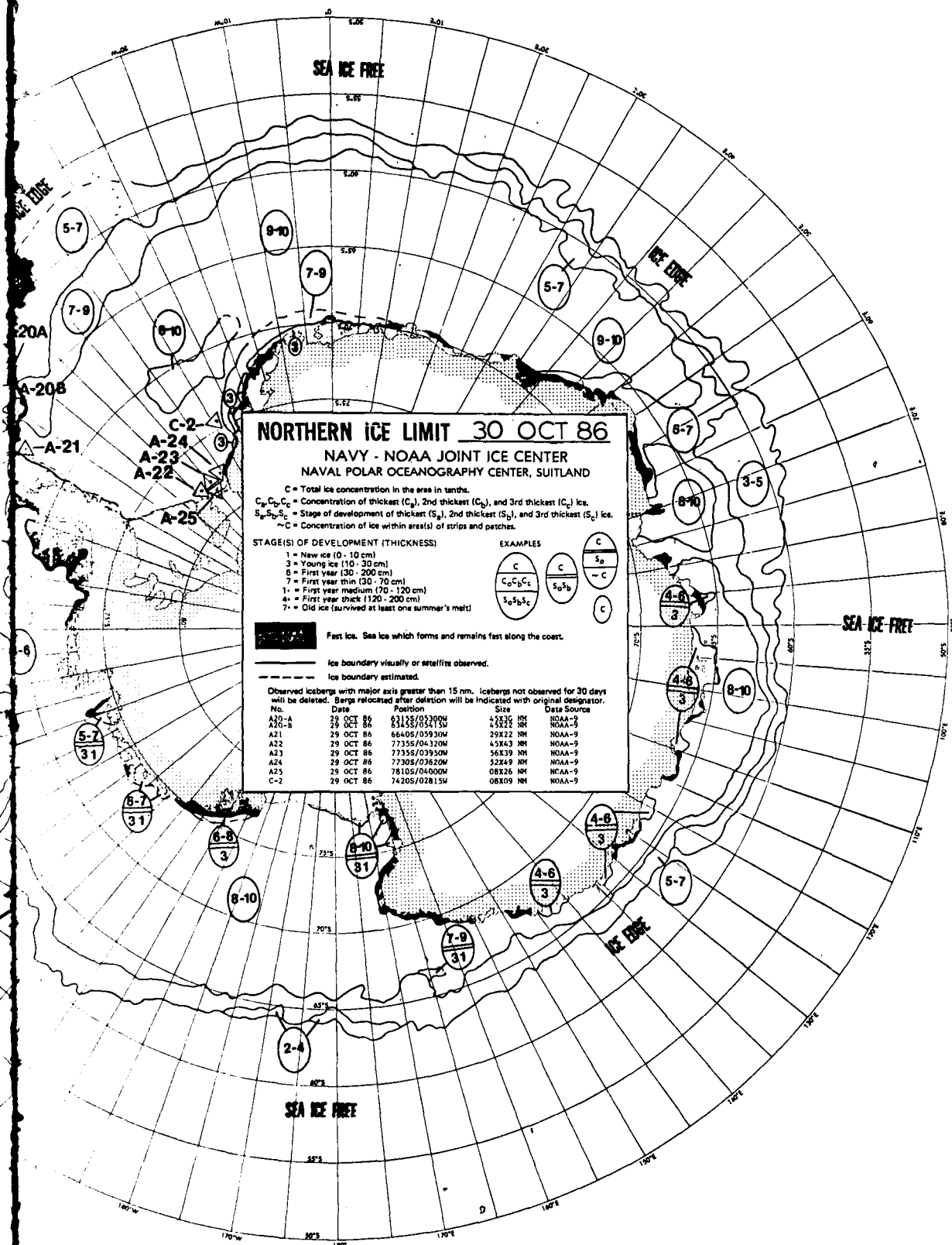
Fast ice. Sea ice which forms and remains fast along the coast.

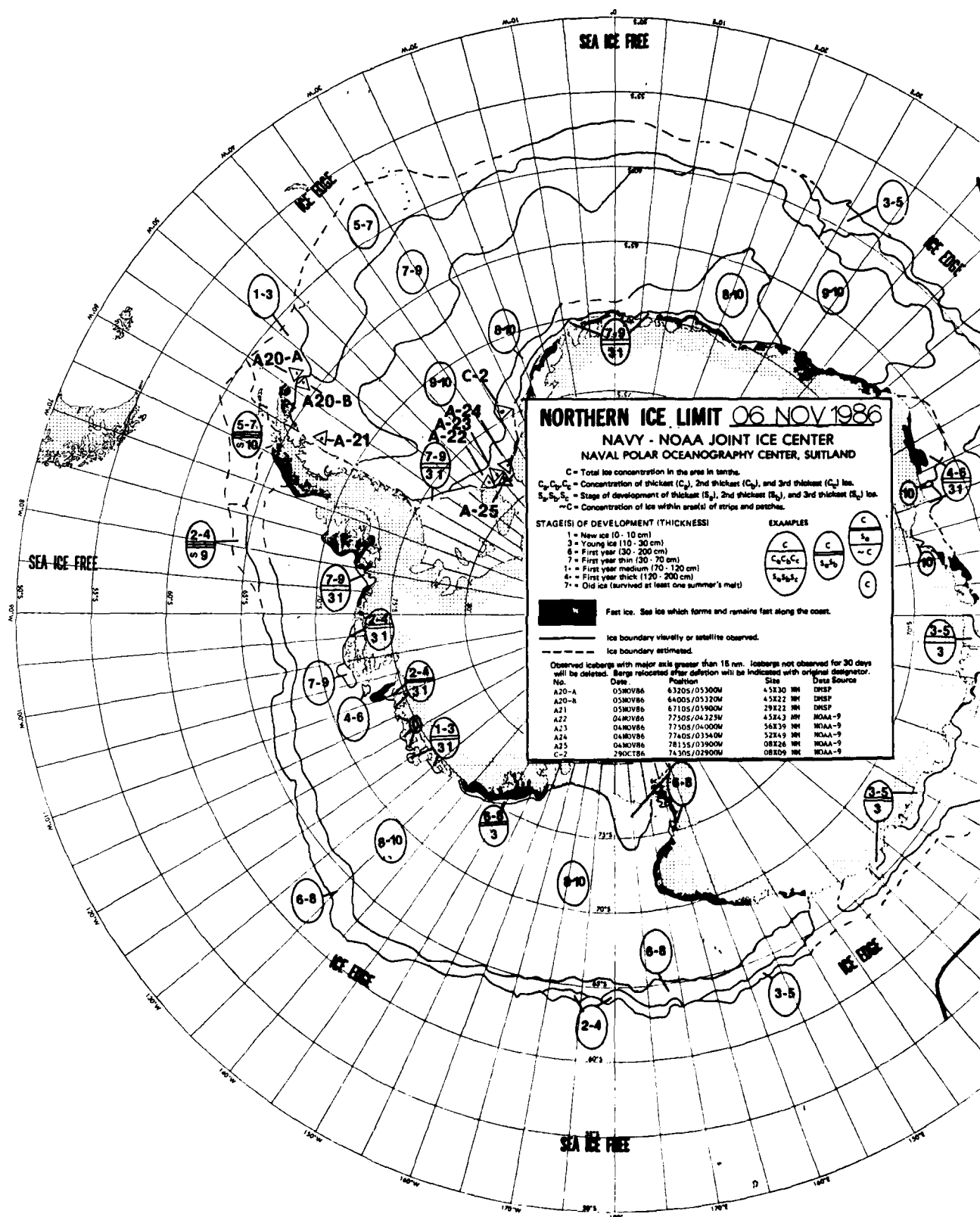
Ice boundary visually or satellite observed.

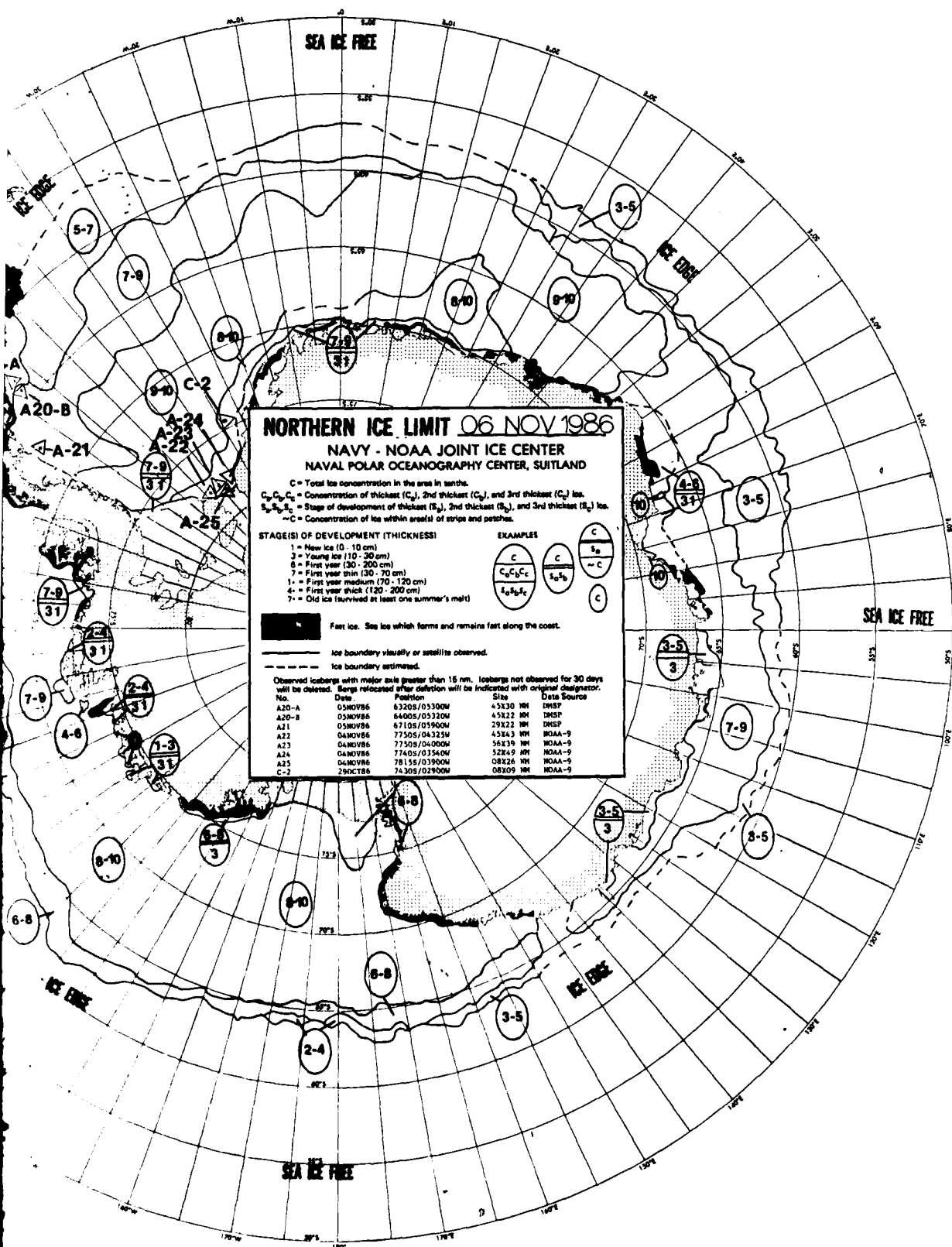
Ice boundary estimated.

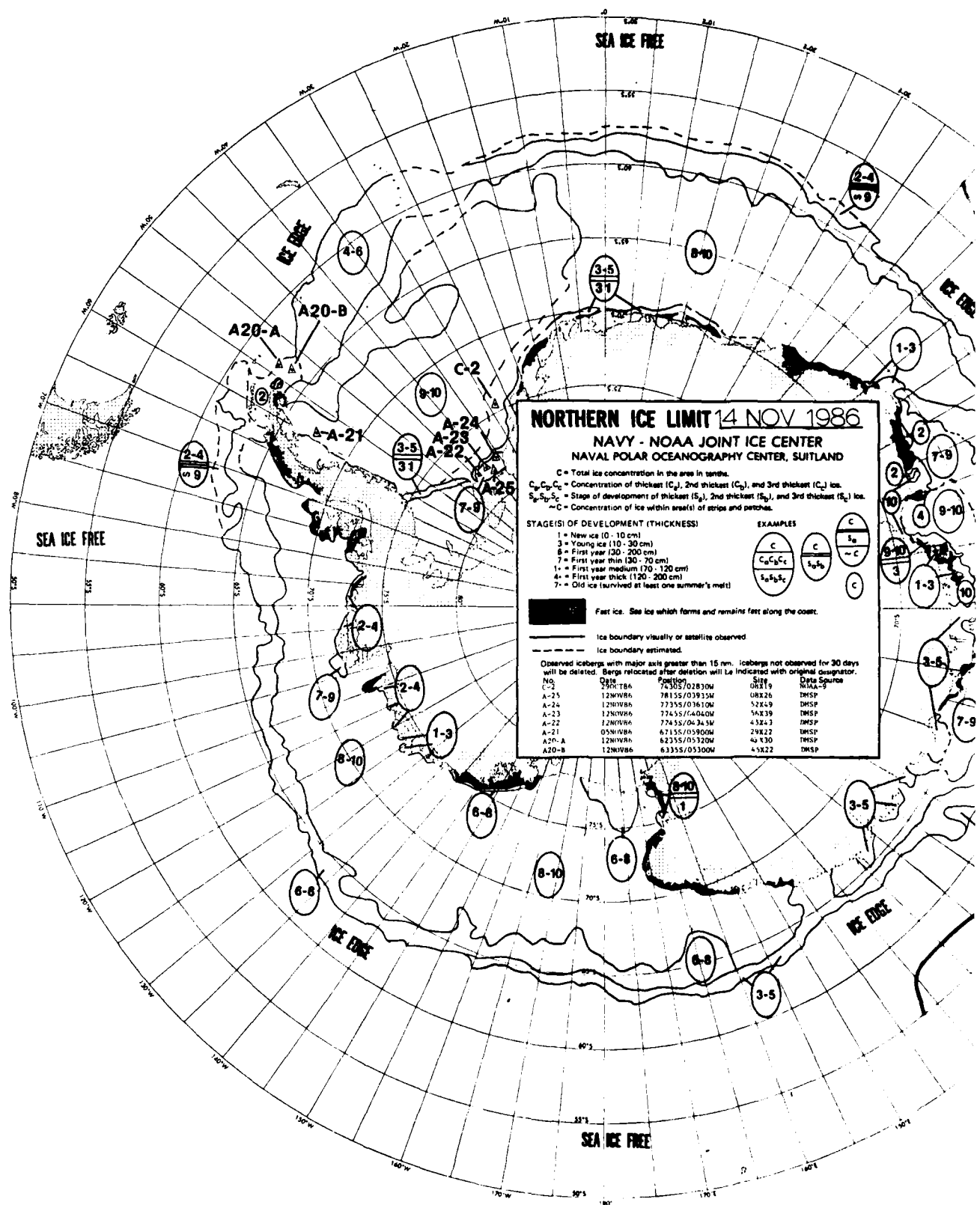
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
A20-A	29 OCT 86	6312S/05300W	23230 NM	NOAA-9
A20-B	29 OCT 86	6345S/05415W	45222 NM	NOAA-9
A21	29 OCT 86	6640S/05930W	29222 NM	NOAA-9
A22	29 OCT 86	7735S/04320W	45X43 NM	NOAA-9
A23	29 OCT 86	7735S/03950W	56X39 NM	NOAA-9
A24	29 OCT 86	7730S/03620W	52X49 NM	NOAA-9
A25	29 OCT 86	7810S/04000W	08X26 NM	NOAA-9
C-2	29 OCT 86	7420S/02815W	08X09 NM	NOAA-9









NORTHERN ICE LIMIT 14 NOV 1986
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 $\sim C$ = Concentration of ice within area(s) of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 3 = Young ice (10 - 30 cm)
- 8 = First year (30 - 200 cm)
- 7 = First year thin (30 - 70 cm)
- 1 = First year medium (70 - 120 cm)
- 4 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

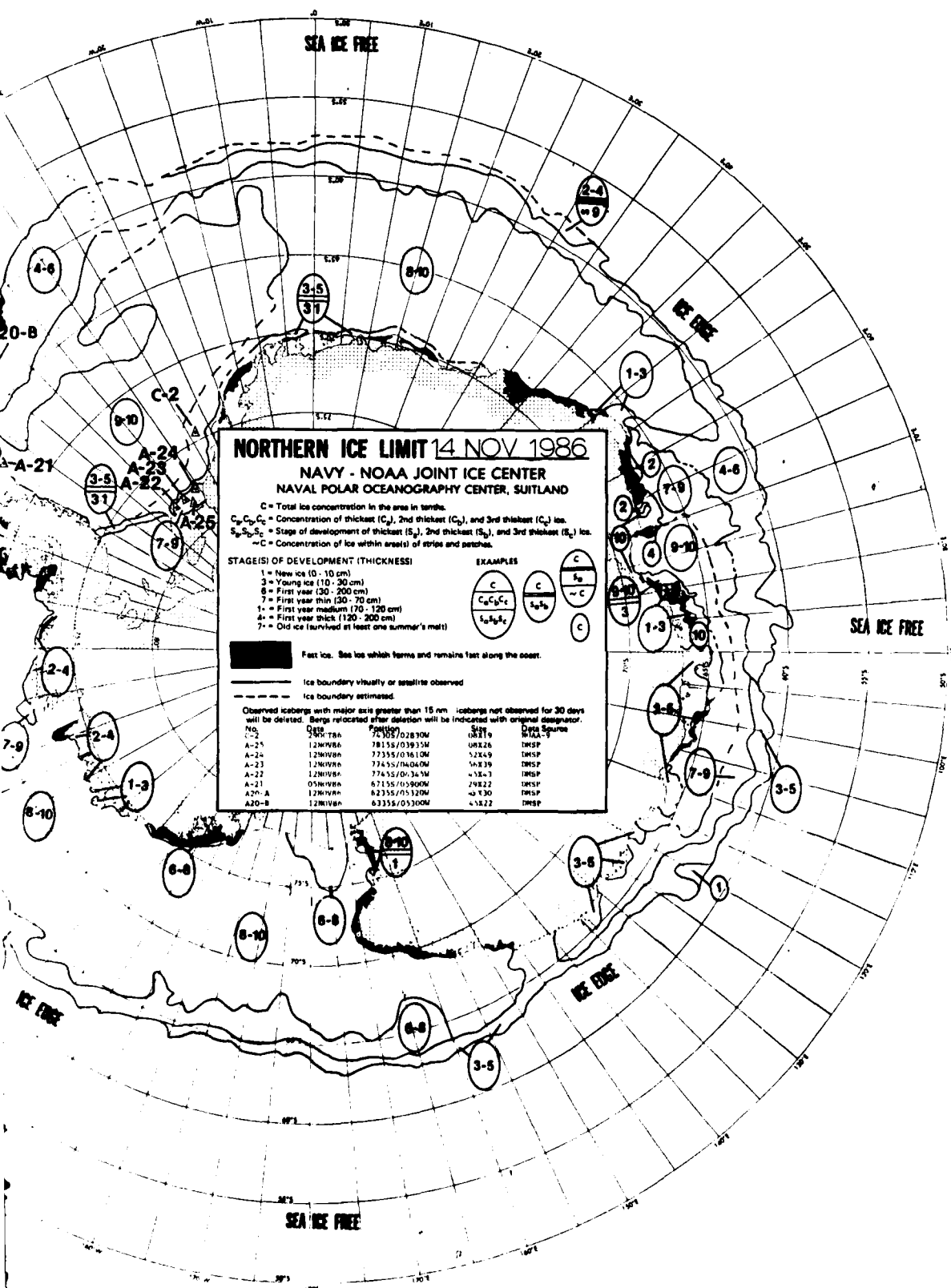
$\frac{C}{S_1 S_2 S_3}$ $\frac{C}{S_1 S_2}$ $\frac{C}{S_1}$ $\frac{C}{S_2}$ $\frac{C}{S_3}$ $\frac{C}{S_1 S_2 S_3}$ $\frac{C}{S_1 S_2}$ $\frac{C}{S_1}$ $\frac{C}{S_2}$ $\frac{C}{S_3}$

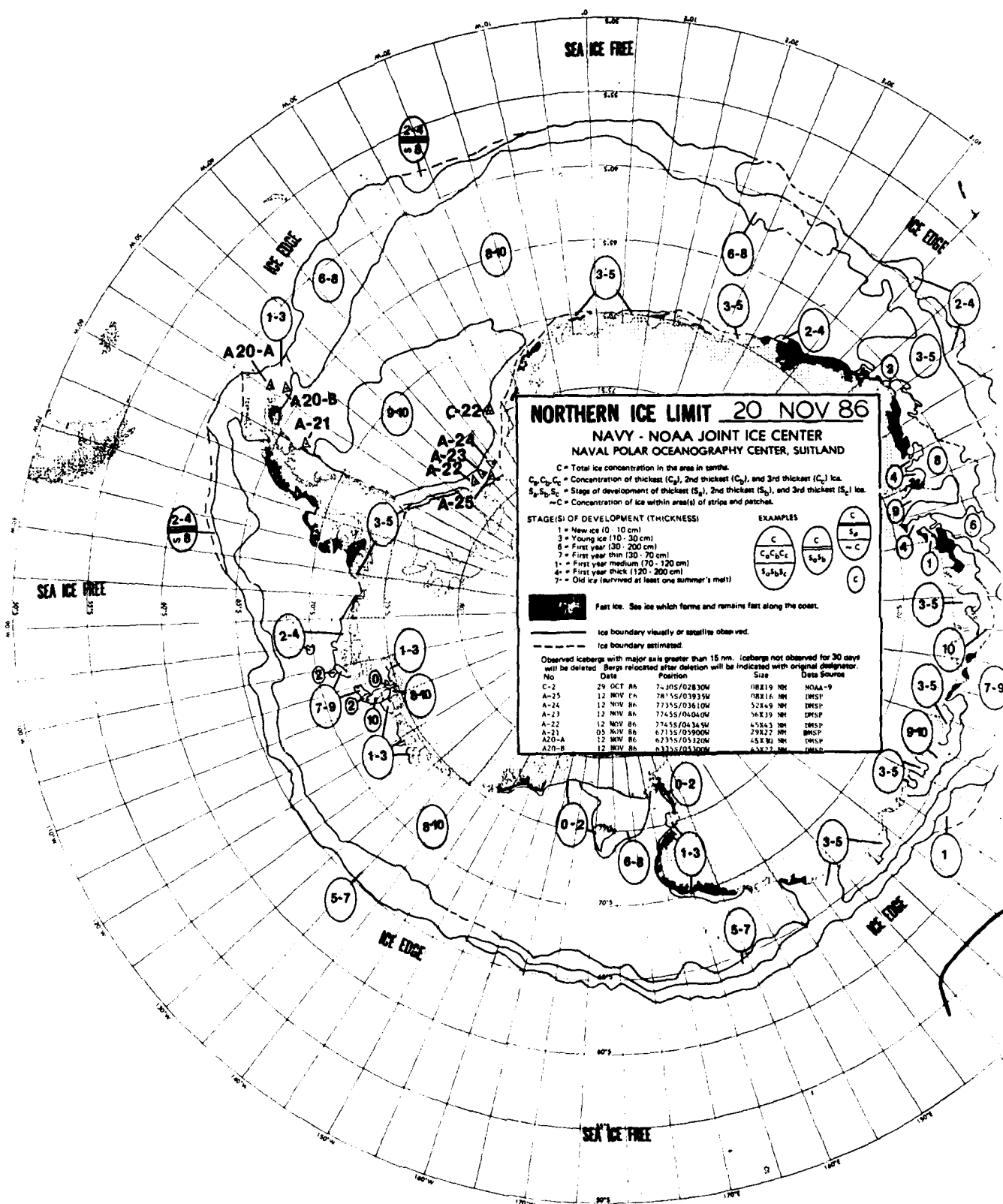
Fast ice. See ice which forms and remains fast along the coast.

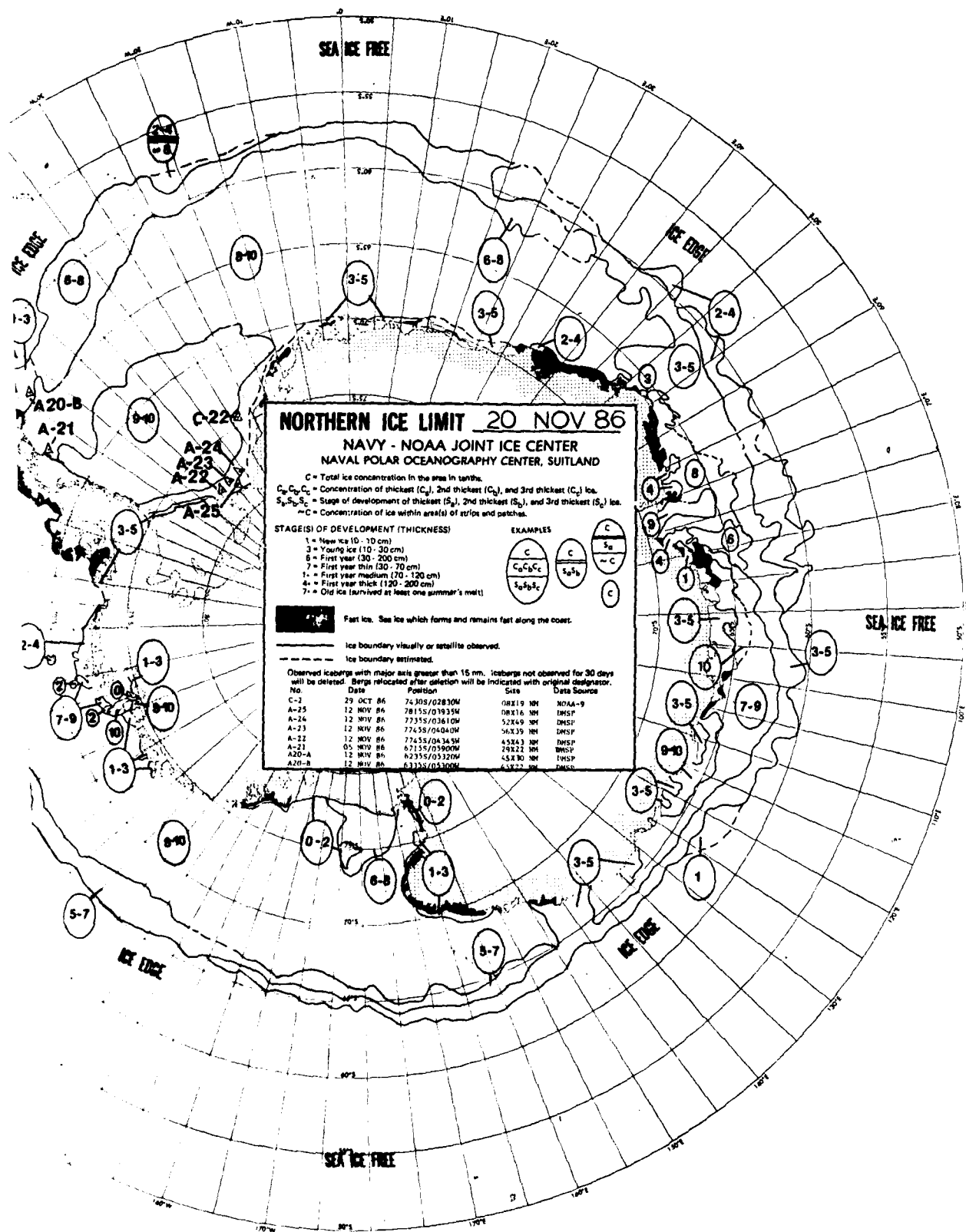
— Ice boundary visually or satellite observed
 --- Ice boundary estimated.

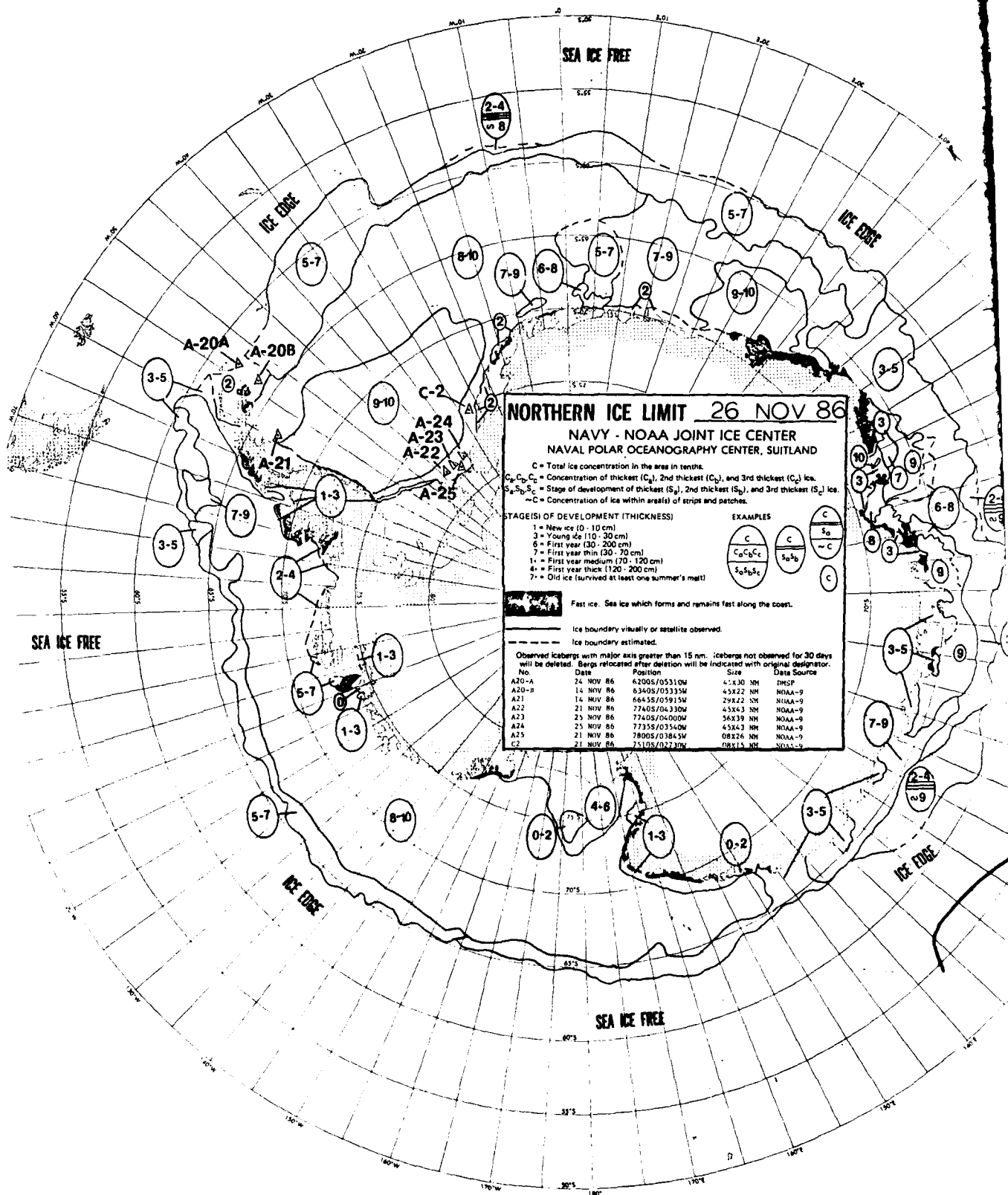
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

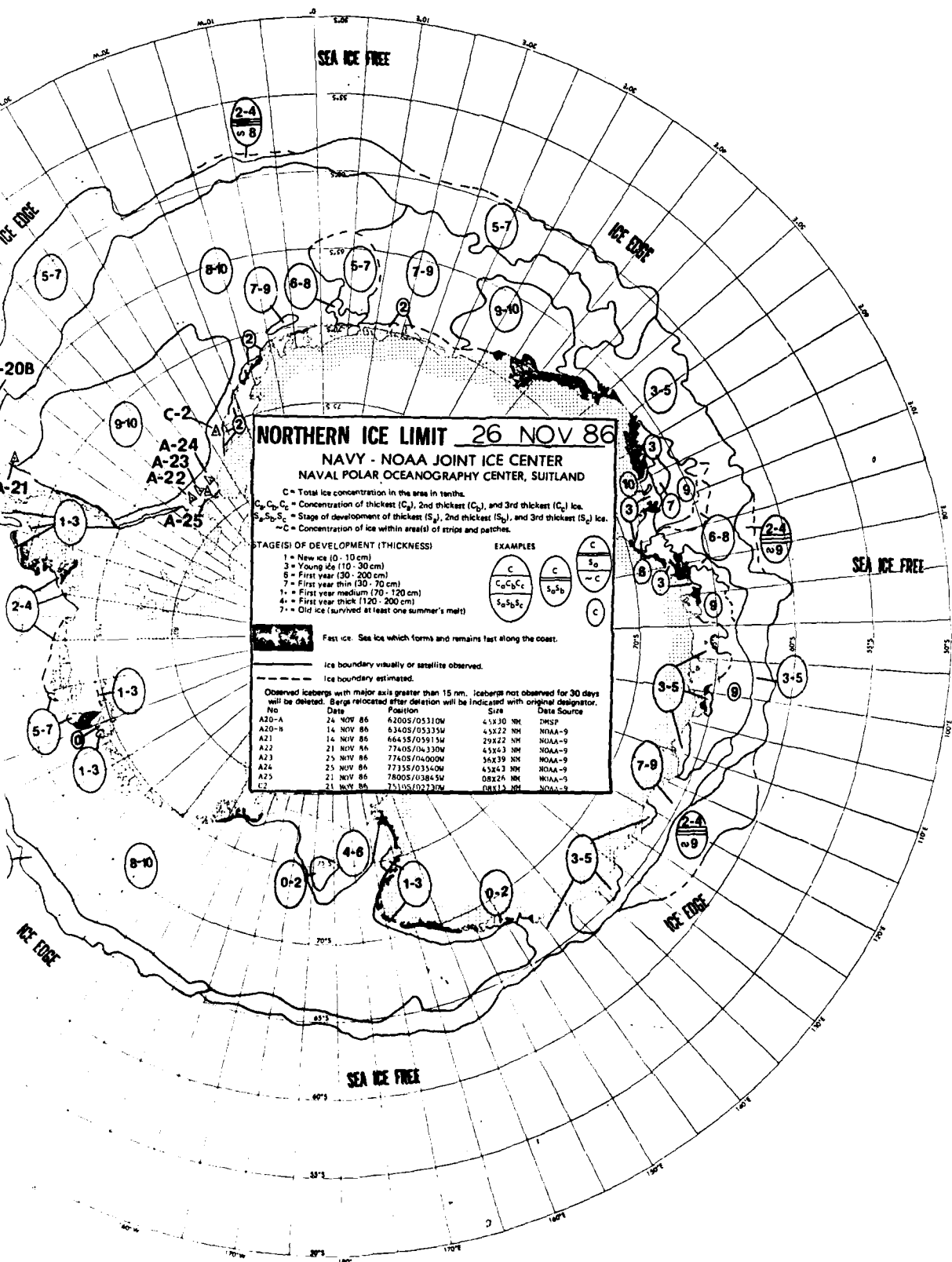
No.	Date	Position	Size	Data Source
A-25	12NOV86	7430S/02830W	08119	NALAS
A-24	12NOV86	7815S/03913W	08126	DMSP
A-23	12NOV86	7735S/01610W	5249	DMSP
A-22	12NOV86	7745S/04040W	54339	DMSP
A-21	05NOV86	7745S/04345W	45243	DMSP
A20-A	12NOV86	6715S/05900W	29822	DMSP
A20-B	12NOV86	6235S/05520W	44430	DMSP
A20-B	12NOV86	6335S/05300W	45822	DMSP

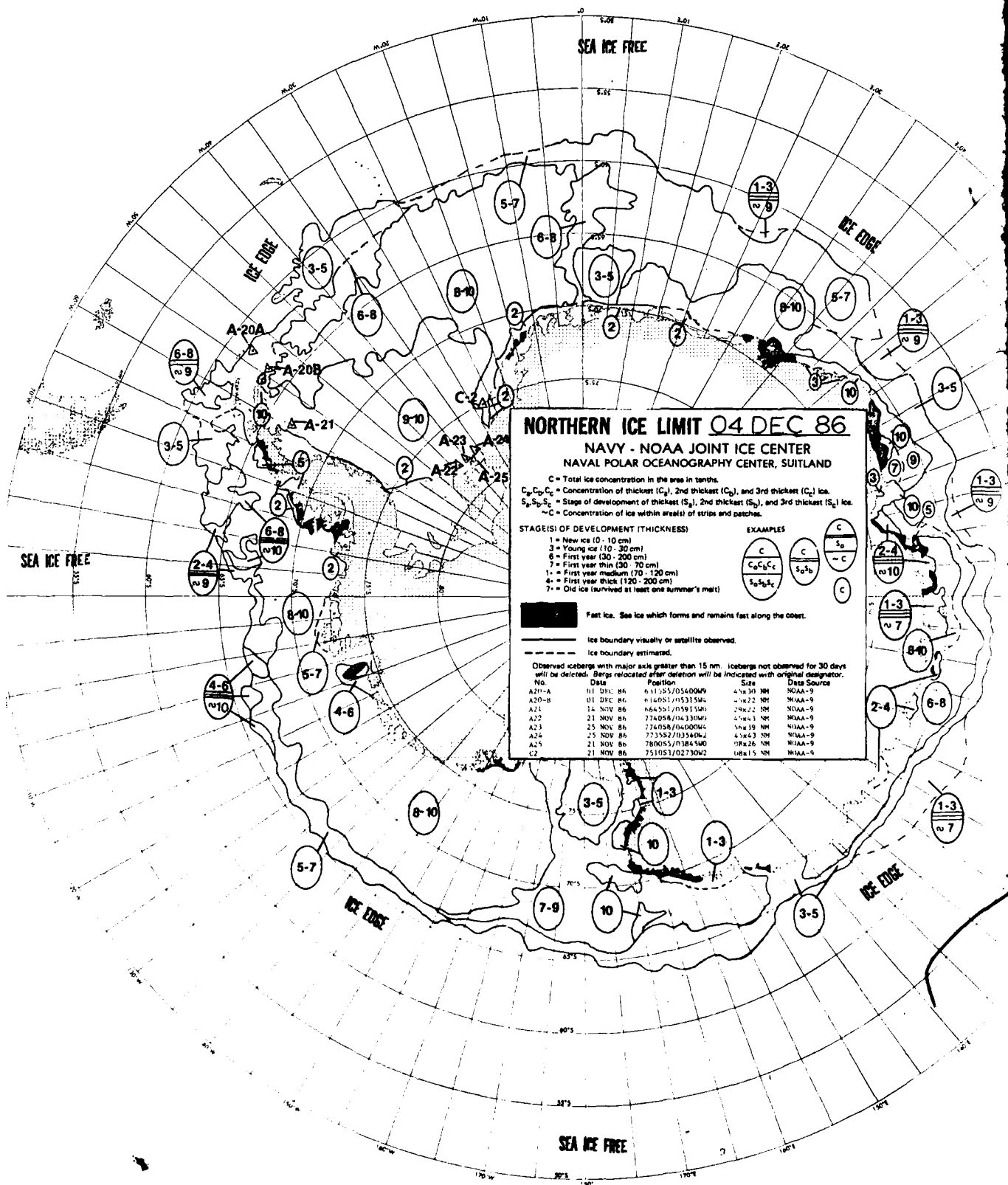


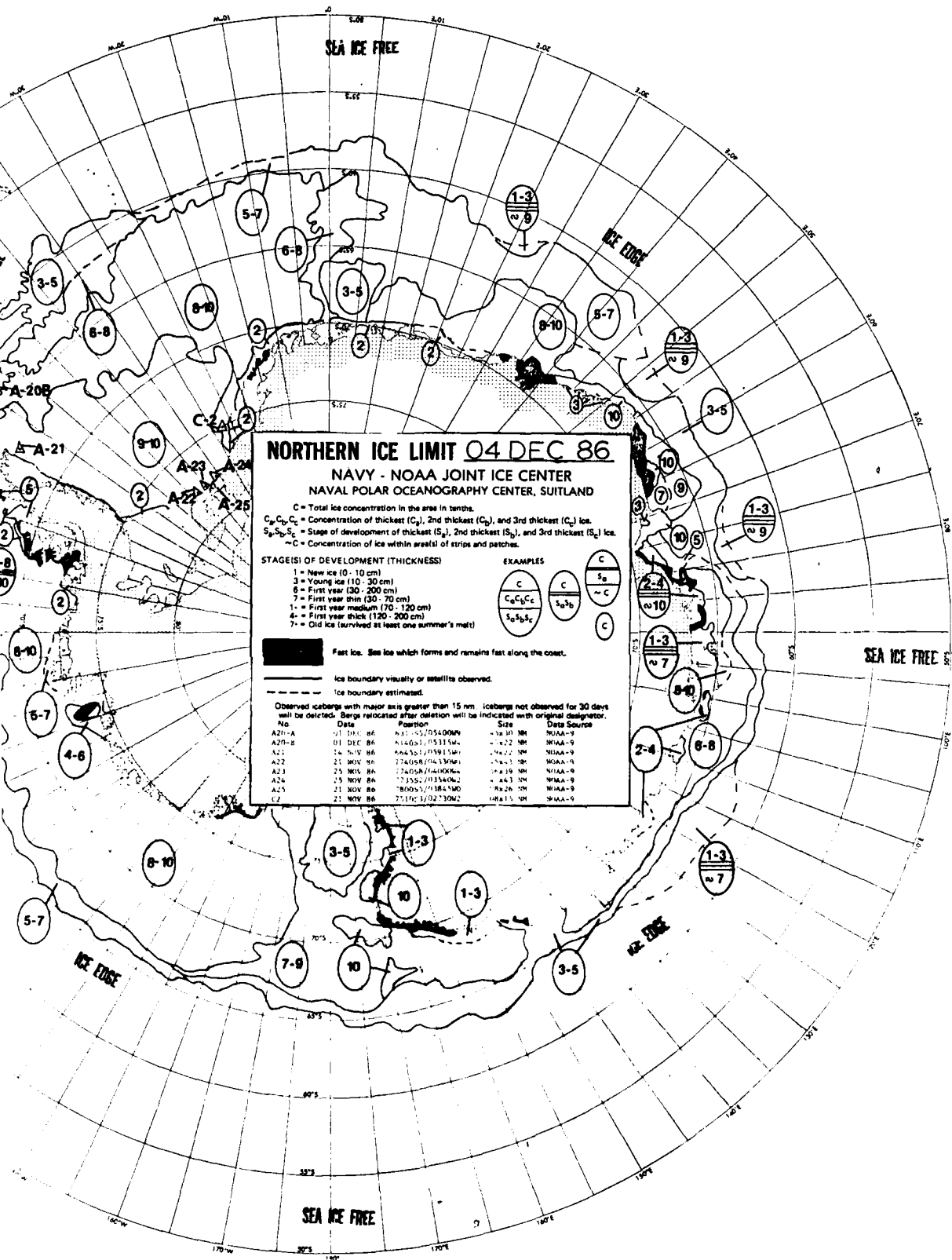


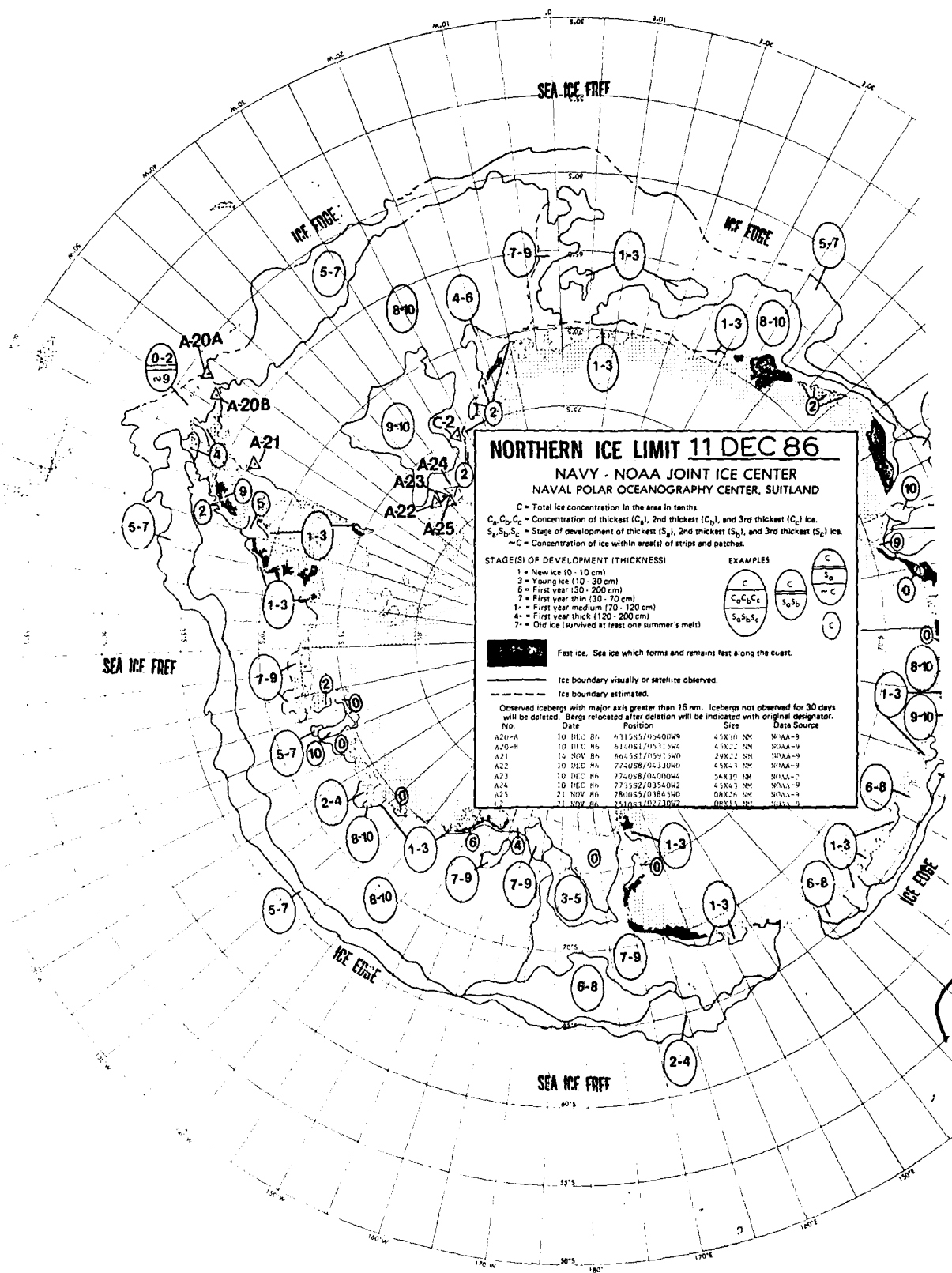












NORTHERN ICE LIMIT 11 DEC 86

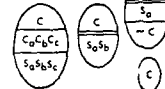
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
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- 4 = First year thin (30 - 70 cm)
- 5 = First year medium (70 - 120 cm)
- 6 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



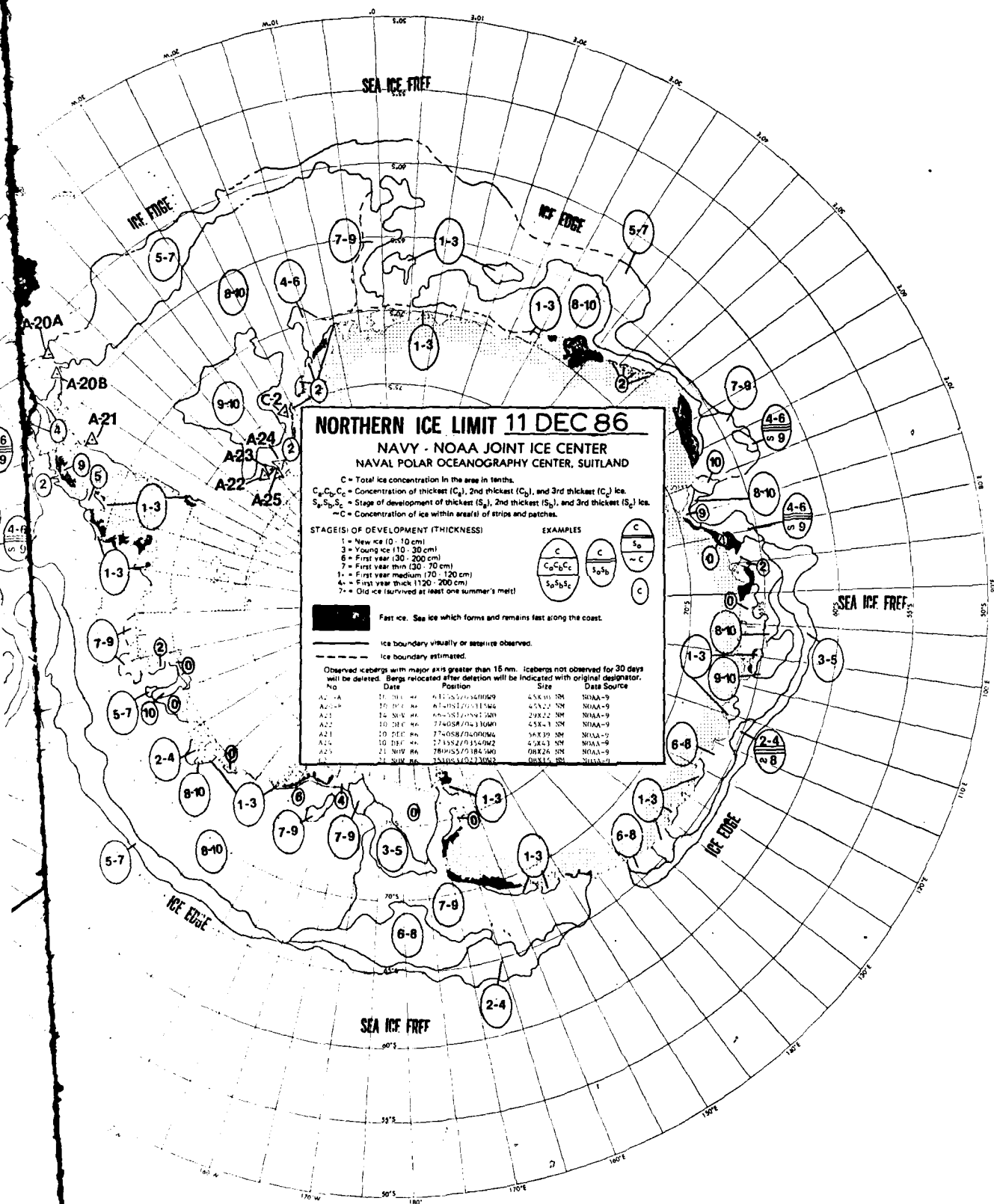
Fast ice. Sea ice which forms and remains fast along the coast.

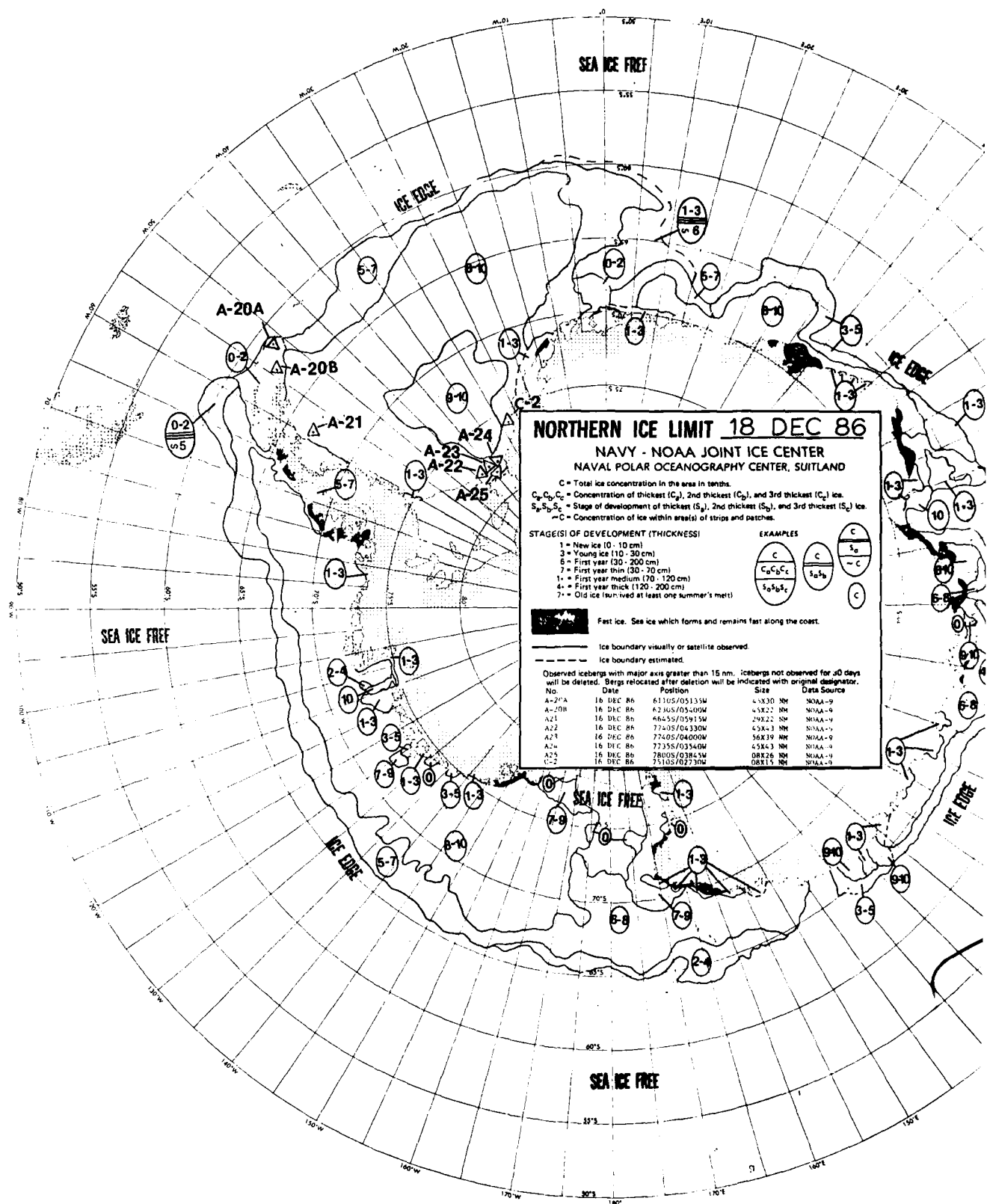
Ice boundary visually or satellite observed.

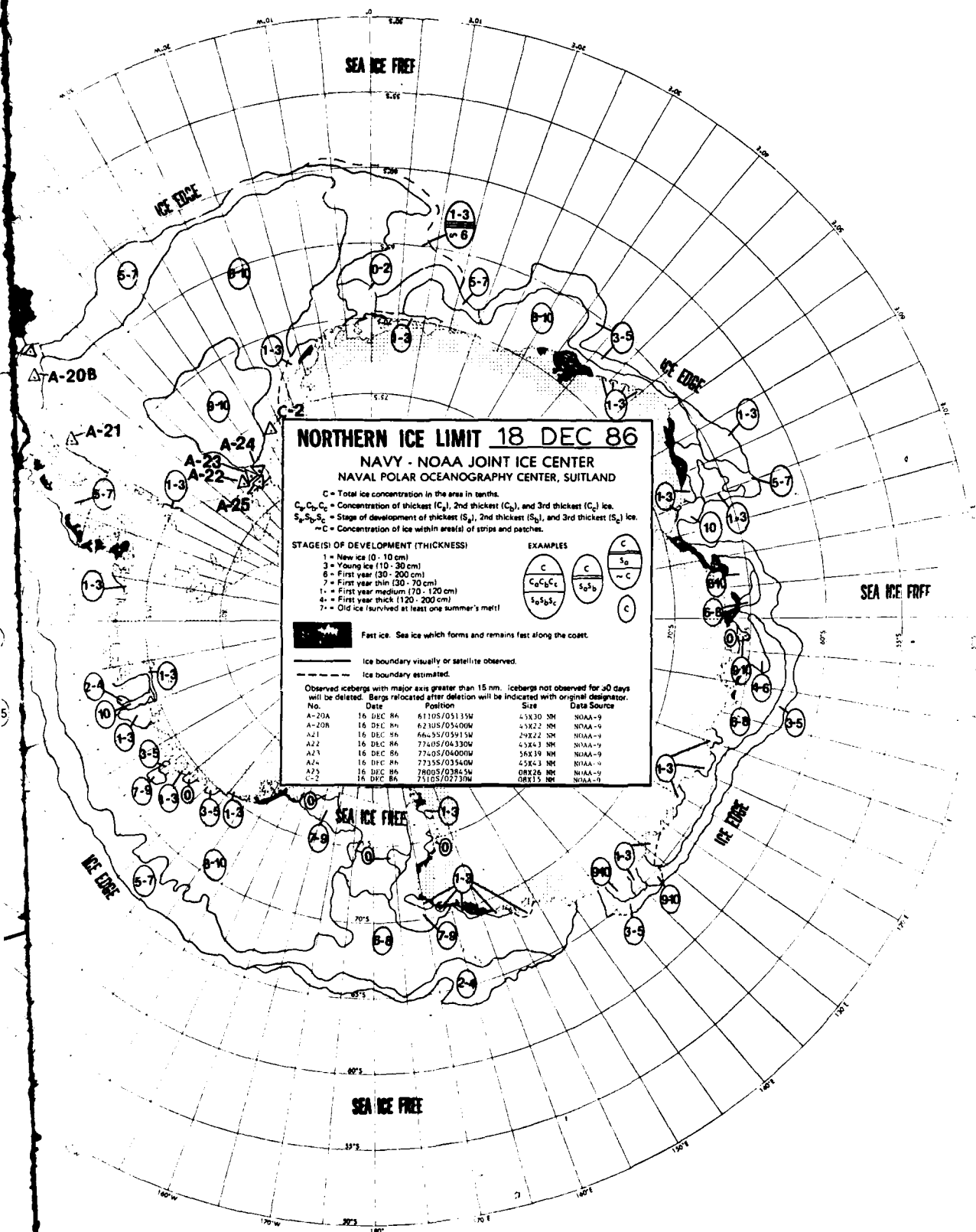
Ice boundary estimated.

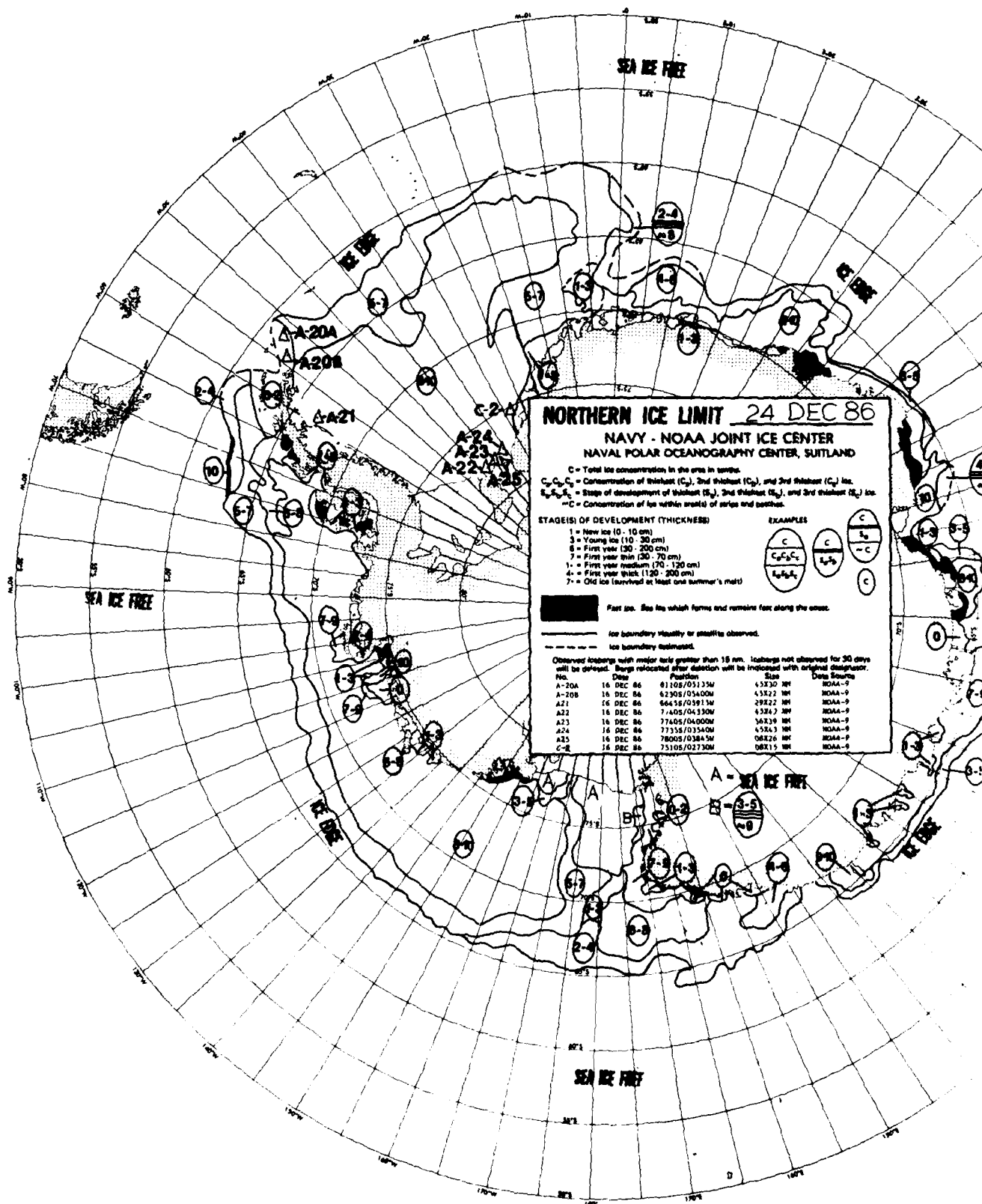
Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

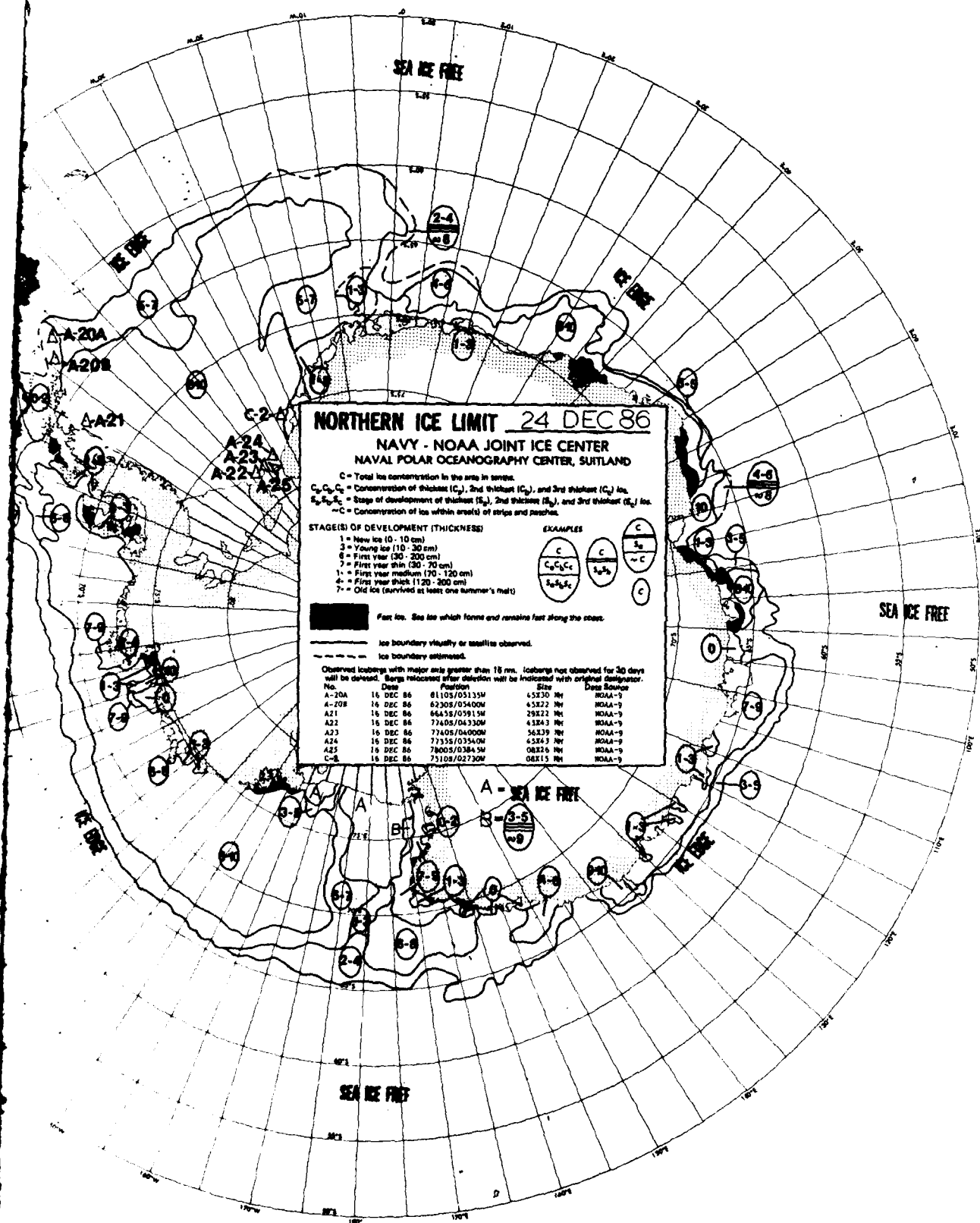
No.	Date	Position	Size	Data Source
A20-A	10 DEC 86	631555/1050000	45X10 NM	NOAA-9
A20-B	10 DEC 86	614051/1051150	45X22 NM	NOAA-9
A21	14 NOV 86	665537/1055130	24X22 NM	NOAA-9
A22	10 DEC 86	774058/1043300	45X11 NM	NOAA-9
A23	10 DEC 86	774058/1040000	54X30 NM	NOAA-9
A24	10 DEC 86	775552/1035400	45X13 NM	NOAA-9
A25	21 NOV 86	780053/1038450	08X24 NM	NOAA-9
A26	21 NOV 86	781053/1037100	08X23 NM	NOAA-9











NORTHERN ICE LIMIT 24 DEC 86

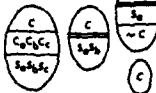
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area in percent.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
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EXAMPLES



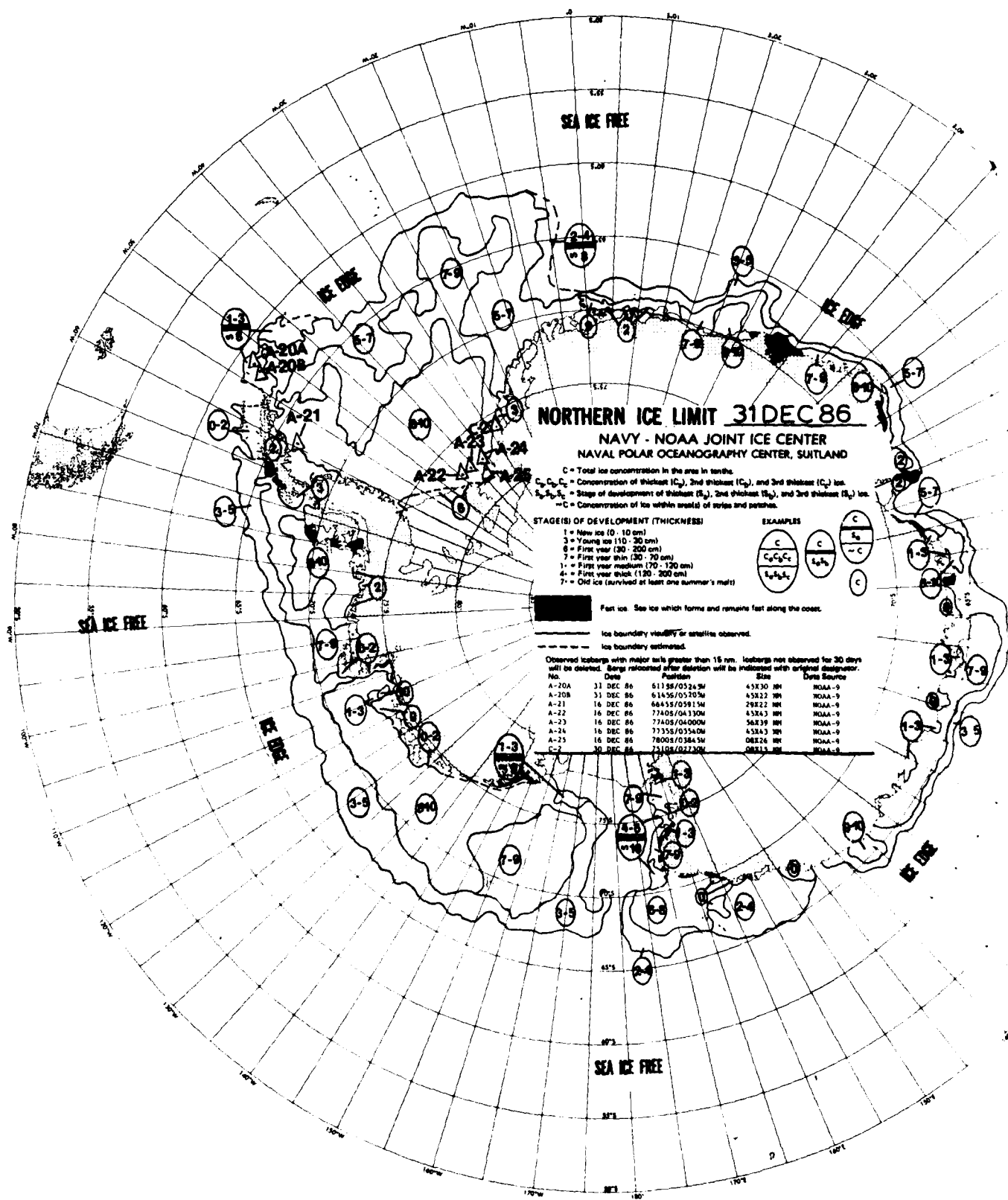
Fast ice. See ice which forms and remains fast along the coast.

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. Stars indicate after deletion will be indicated with original designation.

No.	Date	Position	Size	Data Source
A-20A	16 DEC 86	8110S/05135W	45X30 NM	NOAA-9
A-20B	16 DEC 86	8230S/05400W	45X22 NM	NOAA-9
A-21	16 DEC 86	8645S/05915W	29X22 NM	NOAA-9
A-22	16 DEC 86	7740S/04330W	43X43 NM	NOAA-9
A-23	16 DEC 86	7740S/04000W	36X39 NM	NOAA-9
A-24	16 DEC 86	7735S/03540W	43X43 NM	NOAA-9
A-25	16 DEC 86	7800S/03845W	08X25 NM	NOAA-9
C-6	16 DEC 86	7510S/02730W	08X15 NM	NOAA-9



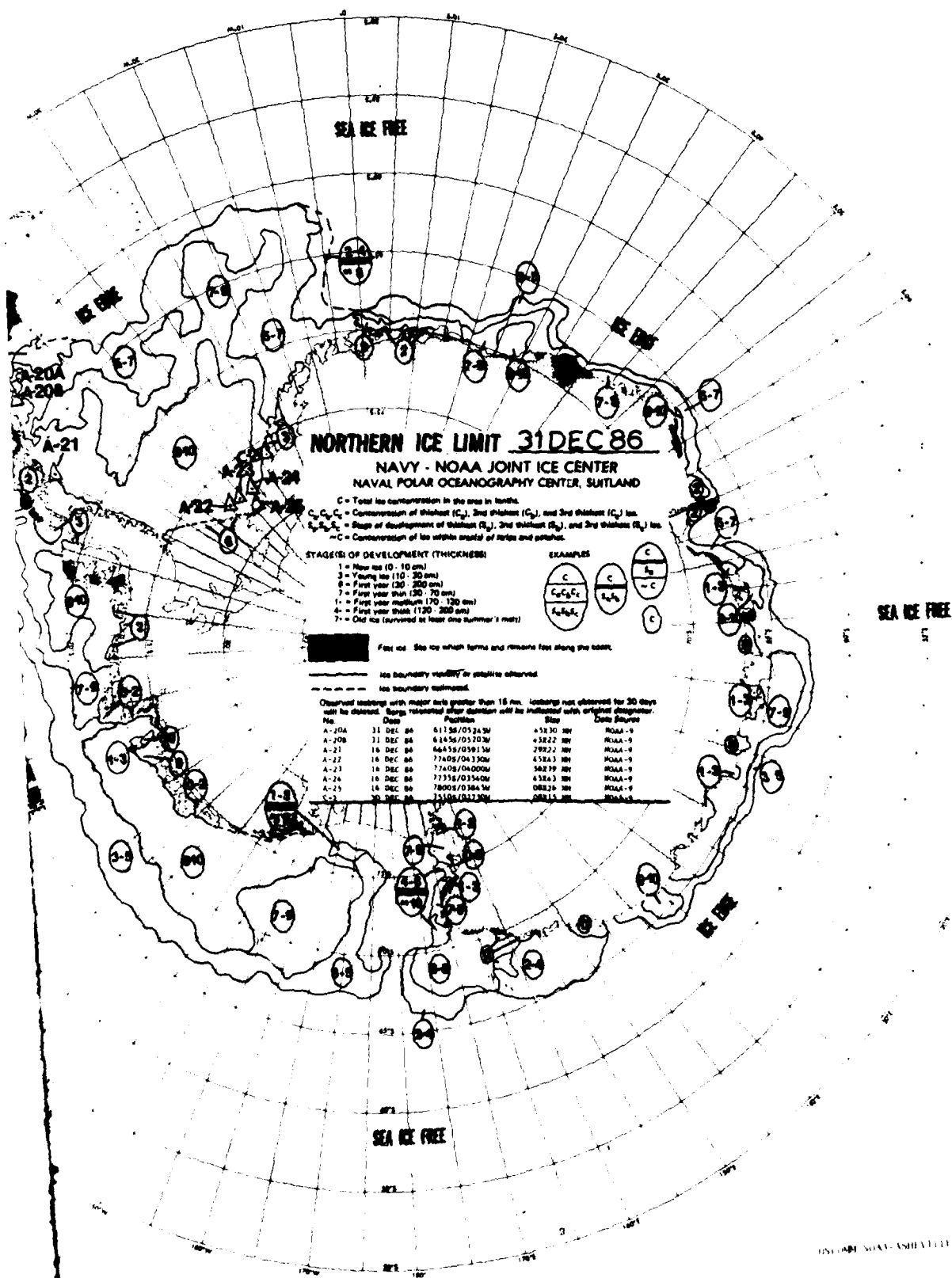


TABLE 1 SATELLITE DATA UTILIZED DURING 1985 AND 1986

TIME PERIOD		SATELLITE REMOTE SENSING			RESOLUTION	COVERAGE
FROM	TO	SATELLITE PLATFORM	SENSOR TYPE	SPECTRAL REGION		
1-85	1-86	NOAA-6	AVHRR	0.58-0.68 um	1 km	Regional
2-85	2-86		NRPT/LAC	0.73-1.10 um		
3-85	3-86		VIS	10.5-11.5 um		
4-85	4-86		IR			
			GAC	0.58-0.68 um	4 km	Global
			VIS	10.5-11.5 um		
			IR			
1-86	2-86	NOAA-7	AVHRR	0.58-0.68 um	1 km	Regional
			NRPT/LAC	0.73-1.10 um		
			VIS	10.5-11.3 um		
			IR			
			GAC	0.58-0.68 um	4 km	Global
			VIS	10.3-11.3 um		
			IR			
7-85	10-85	NOAA-8	AVHRR	0.58-0.68 um	1 km	Regional
			NRPT/LAC	0.725-1.10 um		
			VIS	10.5-11.5 um		
			IR			
			GAC	0.58-0.68 um	4 km	Global
			VIS	10.5-11.5 um		
			IR			
1-86	12-86	NOAA-9	AVHRR	0.58-0.68 um	1 km	Regional
			NRPT/LAC	0.73-1.10 um		
			VIS	10.5-11.5 um		
			IR			
			GAC	0.58-0.68 um	4 km	Global
			VIS	10.5-11.5 um		
			IR			
9-86	12-86	NOAA-10	AVHRR	0.58-0.68 um	1 km	Regional
			NRPT/LAC	0.73-1.10 um		
			VIS	10.5-11.5 um		
			IR			
			GAC	0.58-0.68 um	4 km	Global
			VIS	10.5-11.5 um		
			IR			
1-86	12-86	SEASAT	SNIR	0.81 cm	50 km	Global
				1.66 cm		
5-86	12-86	GEOSAT	RADAR ALTIMETER	N/A	7 km	Global
1-86	12-86	ERSP-F(6)	VIS	0.4-1.1 um	3.7 km	Global
			IR	10.2-12.8 um	4.4 km	
1-86	12-86	ERSP-F(7)	VIS	0.4-1.1 um	3.7 km	Global
			IR	10.2-12.8 um	4.4 km	

Abbreviations and Acronyms

- AVHRR - Advanced Very High Resolution Radiometer
- cm - Centimeter
- GAC - Global Area Coverage
- NRPT - High Resolution Picture Transmission
- IR - Infrared
- km - Kilometer
- LAC - Local Area Coverage
- SNIR - SeaWiFS Infrared Radiometer
- RADAR - Scanning Altimeter Radiometer
- VIS - Visible
- um - Micrometer

END

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