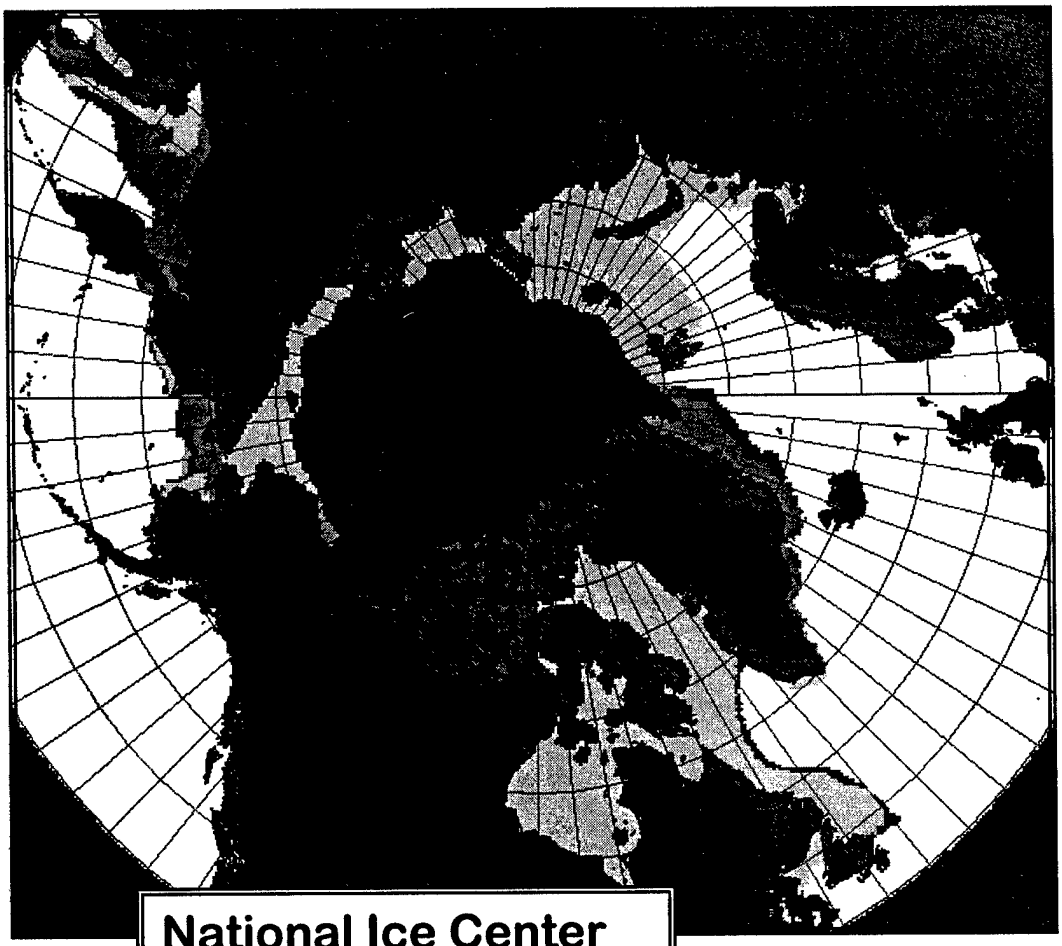
National Ice Center Special Arctic Sea Ice Supplement 1996



National Ice Center
4251 Suitland Road
FB4, Room 2301
Washington D.C.
20395

http://www.natice.noaa.gov

DTIC QUALITY INSPECTED 4

19990722 016

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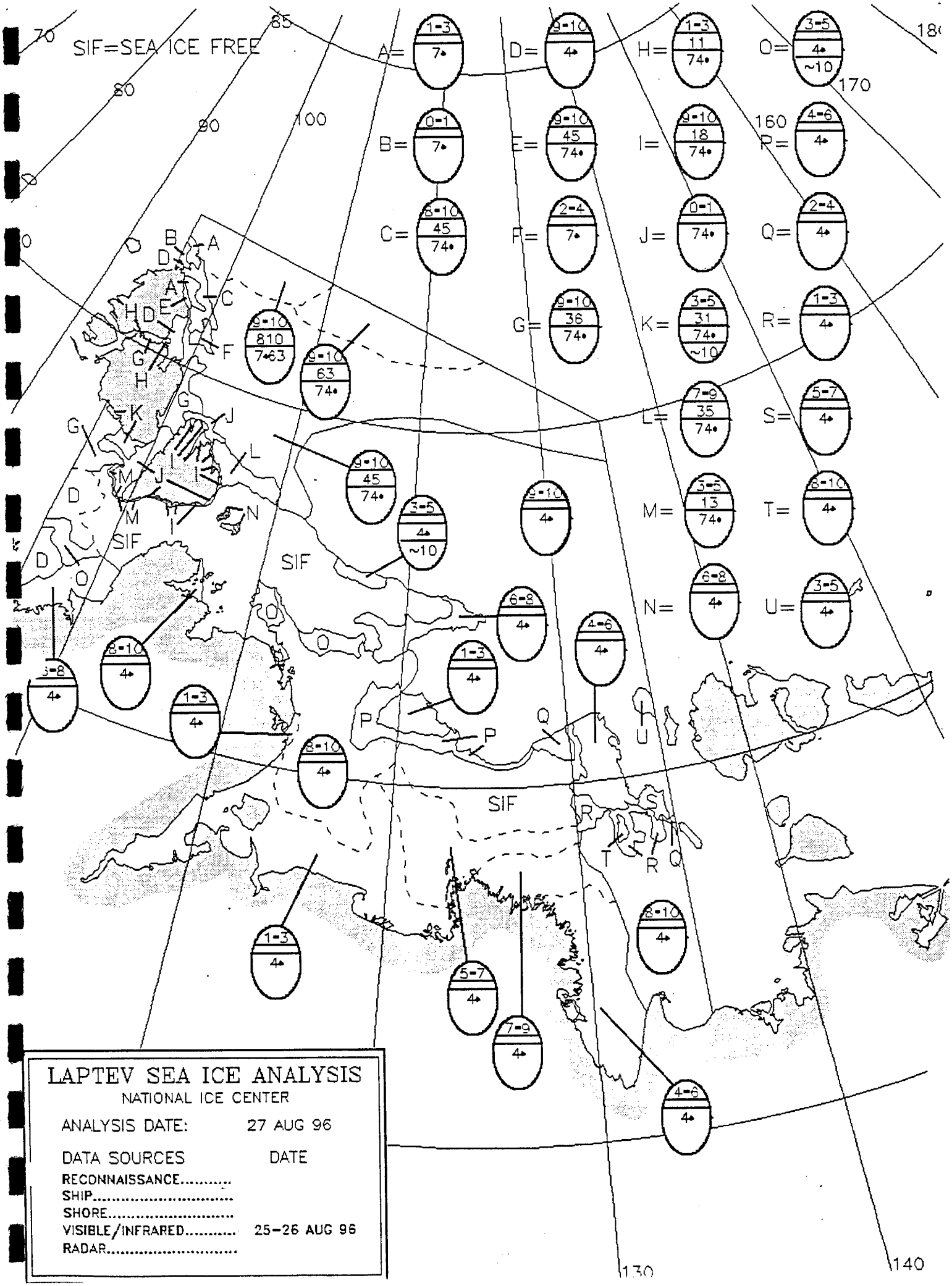
PREFACE

The National Ice Center (NIC), under sponsorship of the United States Navy, the United States Coast Guard, and the National Oceanic and Atmospheric Administration (NOAA), provides sea ice analyses encompassing the "Arctic" and the "Antarctic". These analyses continue the data set established under our previous name, the Joint Ice Center. These atlases continue the near real-time integration of remotely sensed data and point observations.

During the last week of August 1996, the West Arctic paper charts were replaced by digital charts in a Graphics Interface Format (*.GIF). Printouts of the digital GIF charts for all West Arctic regions are contained in this Special Arctic Supplement to the "Arctic Sea Ice Atlas". The atlas contains weekly charts depicting the sea ice extent and coverage in the Northern Hemisphere, West Arctic from the last week in August 1996 through December 1996, and will be the final atlas published in a hard copy format by the NIC. Future annual atlases will be available in a digital format on CD-ROM through the National Snow and Ice Data Center (http://www-nsidc.colorado.edu). NSIDC is the official archive center for the NIC.

The NIC uses a wide variety of data sources in the production of sea ice analyses. Table 1 lists the data sources used to produce the West Arctic weekly ice analyses contained in this publication.

Please direct questions or comments to the NIC Liaison Branch, at phone number (301) 457-5303 extension 311 or 303, facsimile number (301) 457-5300, or electronic mail address: liaison@natice.noaa.gov



LAPTEV SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 27 AUG 96

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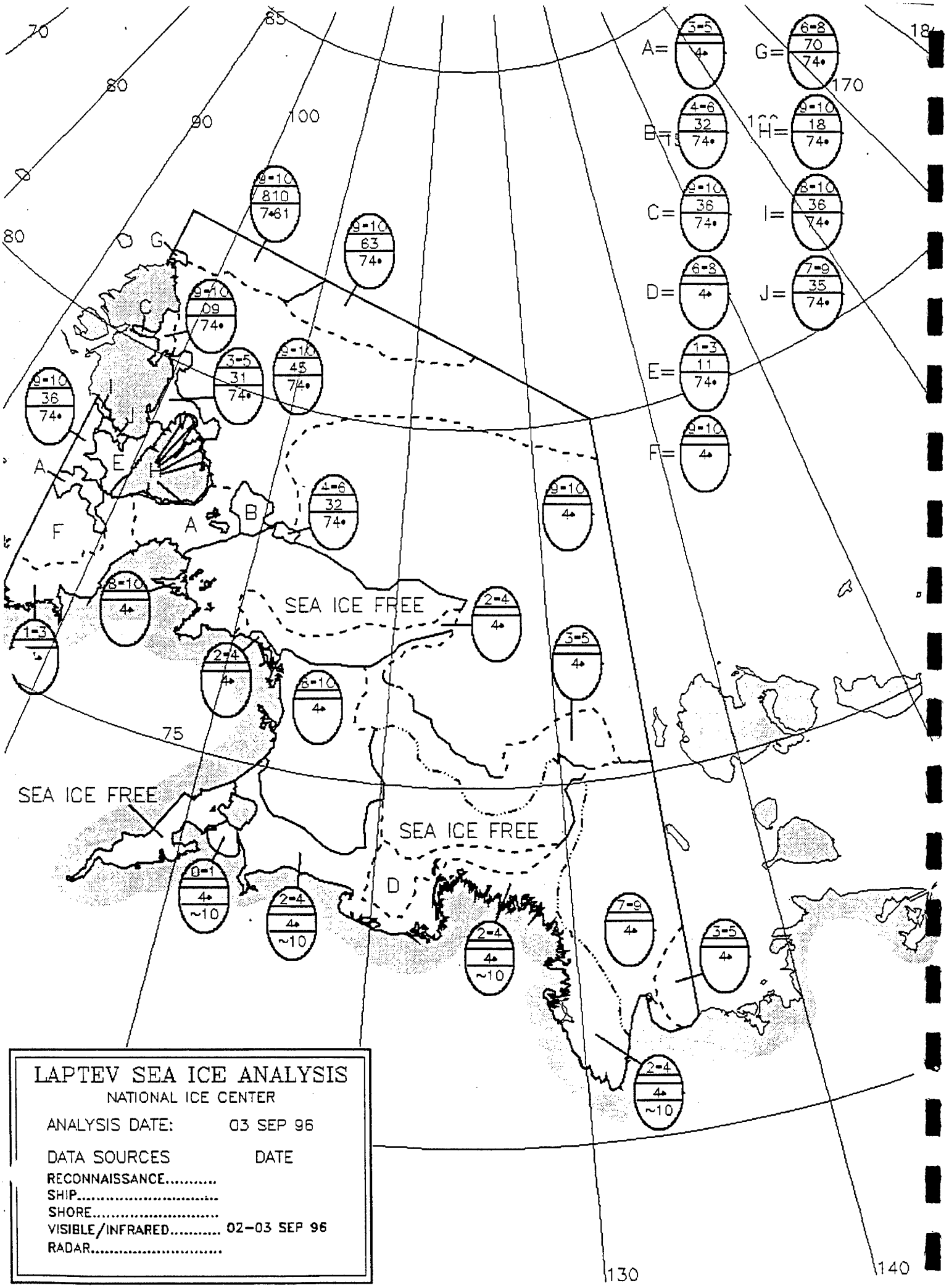
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	25-26 AUG 96
RADAR.....	


LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 03 SEP 96
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SHORE.....
VISIBLE/INFRARED..... 02-03 SEP 96
RADAR.....
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
A= 3-5 4•
B= 4-6 32 74•
C= 9-10 36 74•
D= 6-8 4•
E= 1-3 11 74•
F= 9-10 4•
G= 6-8 70 74•
H= 9-10 18 74•
I= 8-10 36 74•
J= 7-9 35 74•
9-10 810 74•61
9-10 63 74•
9-10 09 74•
3-5 31 74•
9-10 45 74•
9-10 36 74•
4-6 32 74•
9-10 4•
8-10 4•
1-3
2-4 4•
3-5 4•
8-10 4•
0-1 4• ~10
2-4 4• ~10
2-4 4• ~10
7-9 4•
3-5 4•
2-4 4• ~10
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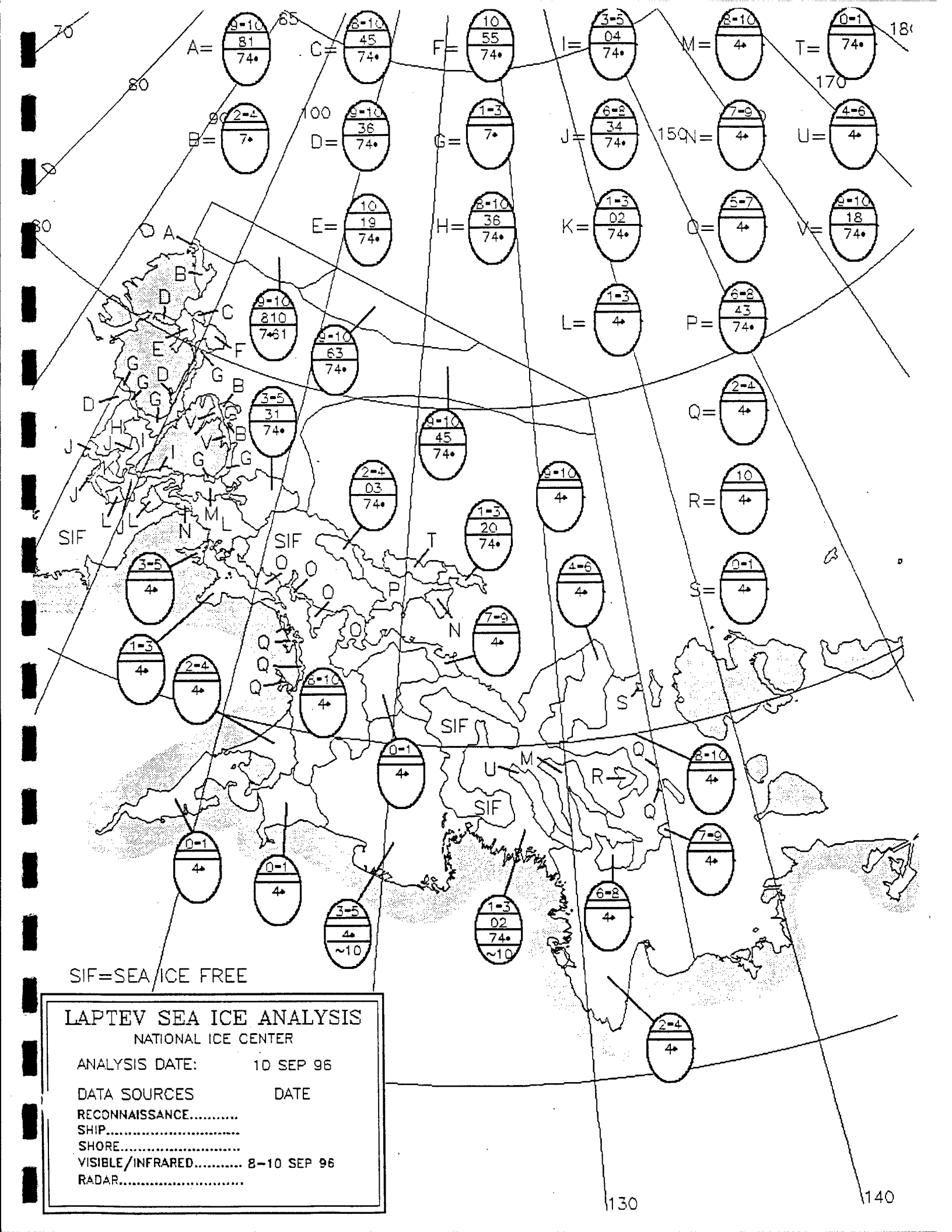
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M= 8-10 / 4•
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B= 2-4 / 7•
D= 9-10 / 36 / 74•
G= 1-3 / 7•
J= 6-8 / 34 / 74•
N= 7-9 / 4•
U= 4-6 / 4•
E= 10 / 19 / 74•
H= 8-10 / 36 / 74•
K= 1-3 / 02 / 74•
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P= 6-8 / 43 / 74•
Q= 2-4 / 4•
R= 10 / 4•
S= 0-1 / 4•
9-10 / 810 / 74•61
9-10 / 63 / 74•
3-5 / 31 / 74•
9-10 / 45 / 74•
2-4 / 03 / 74•
9-10 / 4•
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7-9 / 4•
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1-3 / 4•
2-4 / 4•
8-10 / 4•
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8-10 / 4•
7-9 / 4•
0-1 / 4•
0-1 / 4•
3-5 / 4• / ~10
1-3 / 02 / 74• / ~10
6-8 / 4•
2-4 / 4•
SIF
SIF=SEA ICE FREE
LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 8-10 SEP 96
RADAR.....
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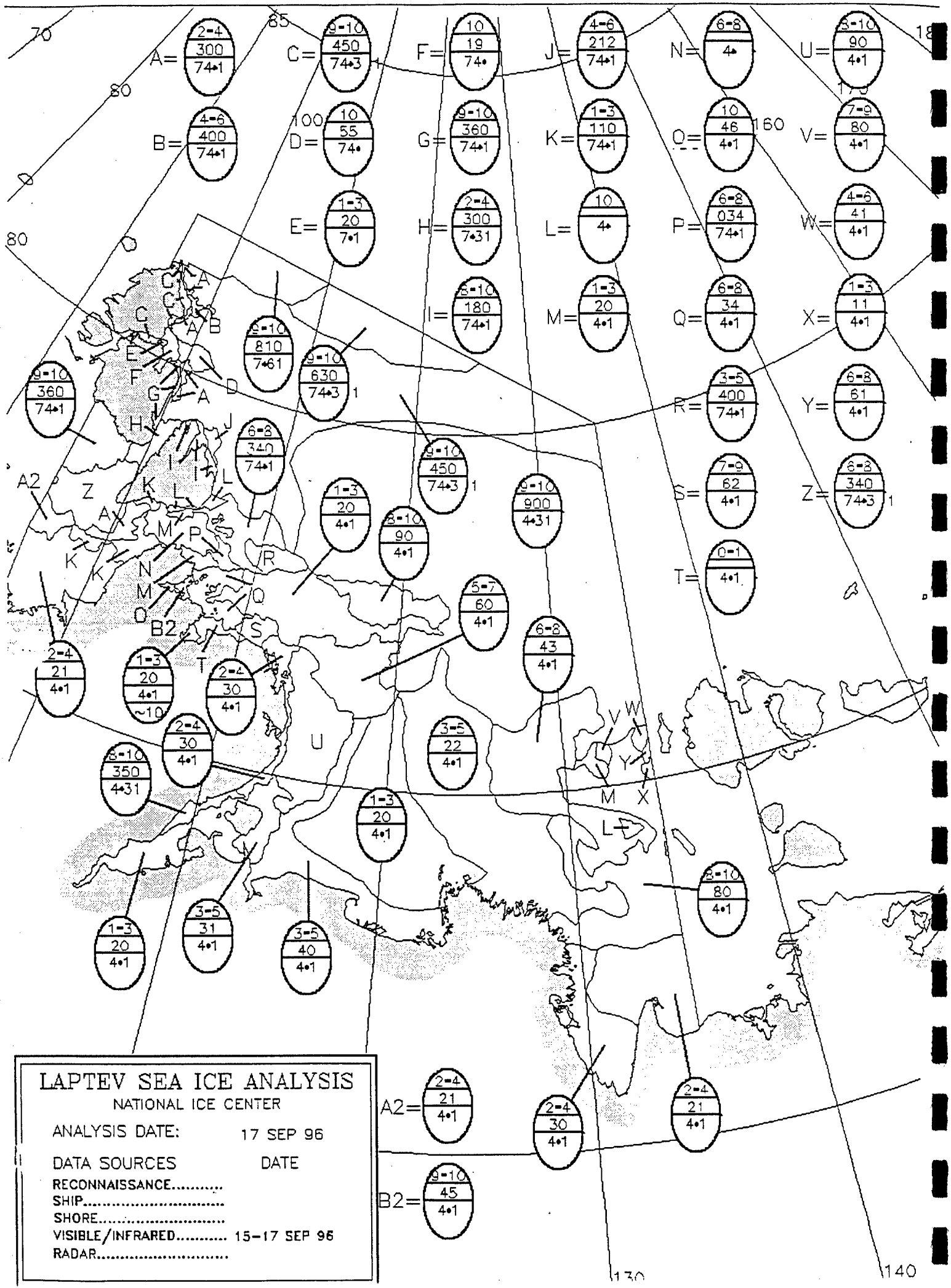
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NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
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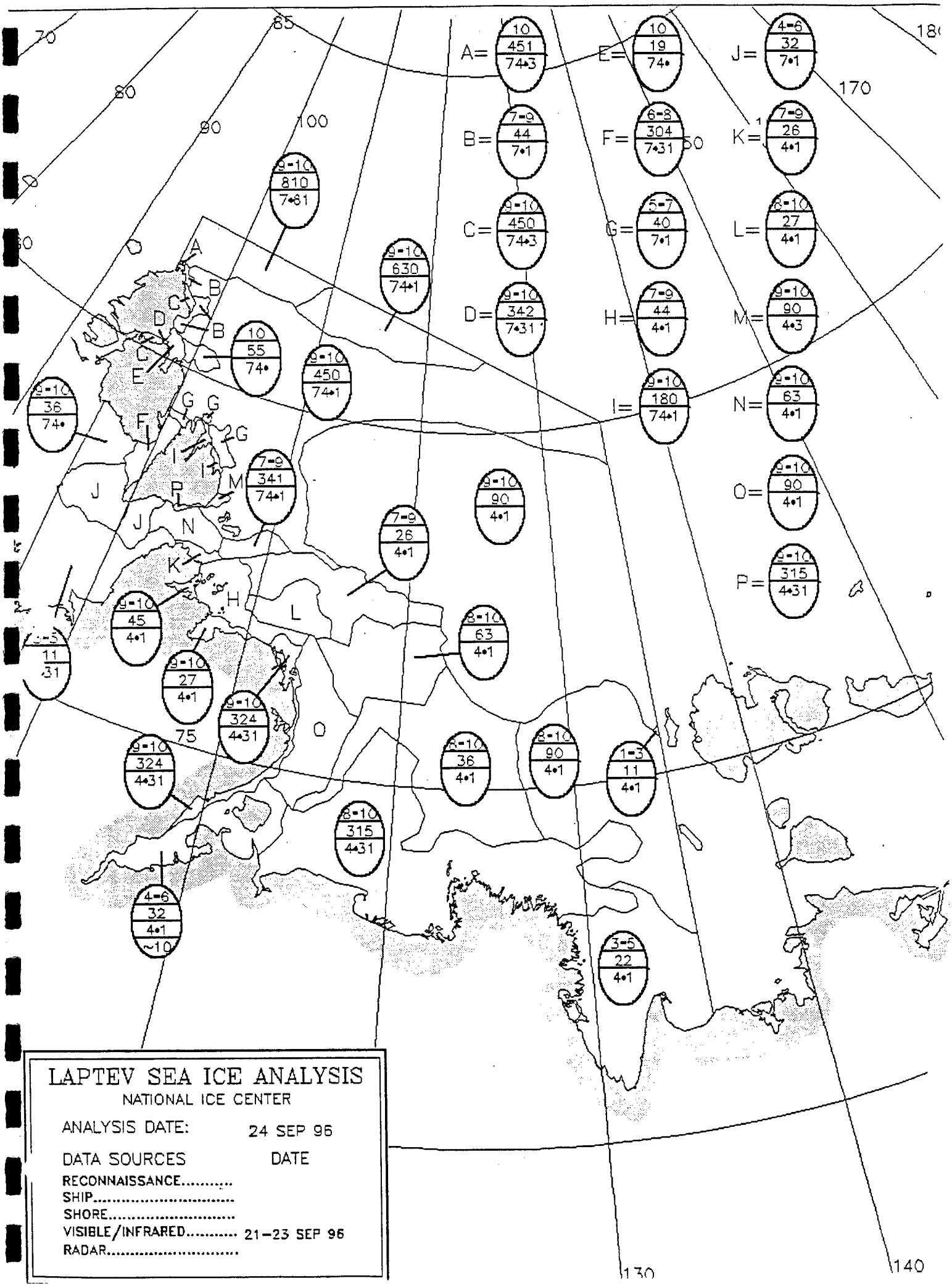
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15-17 SEP 96
RADAR.....



LAPTEV SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 24 SEP 96

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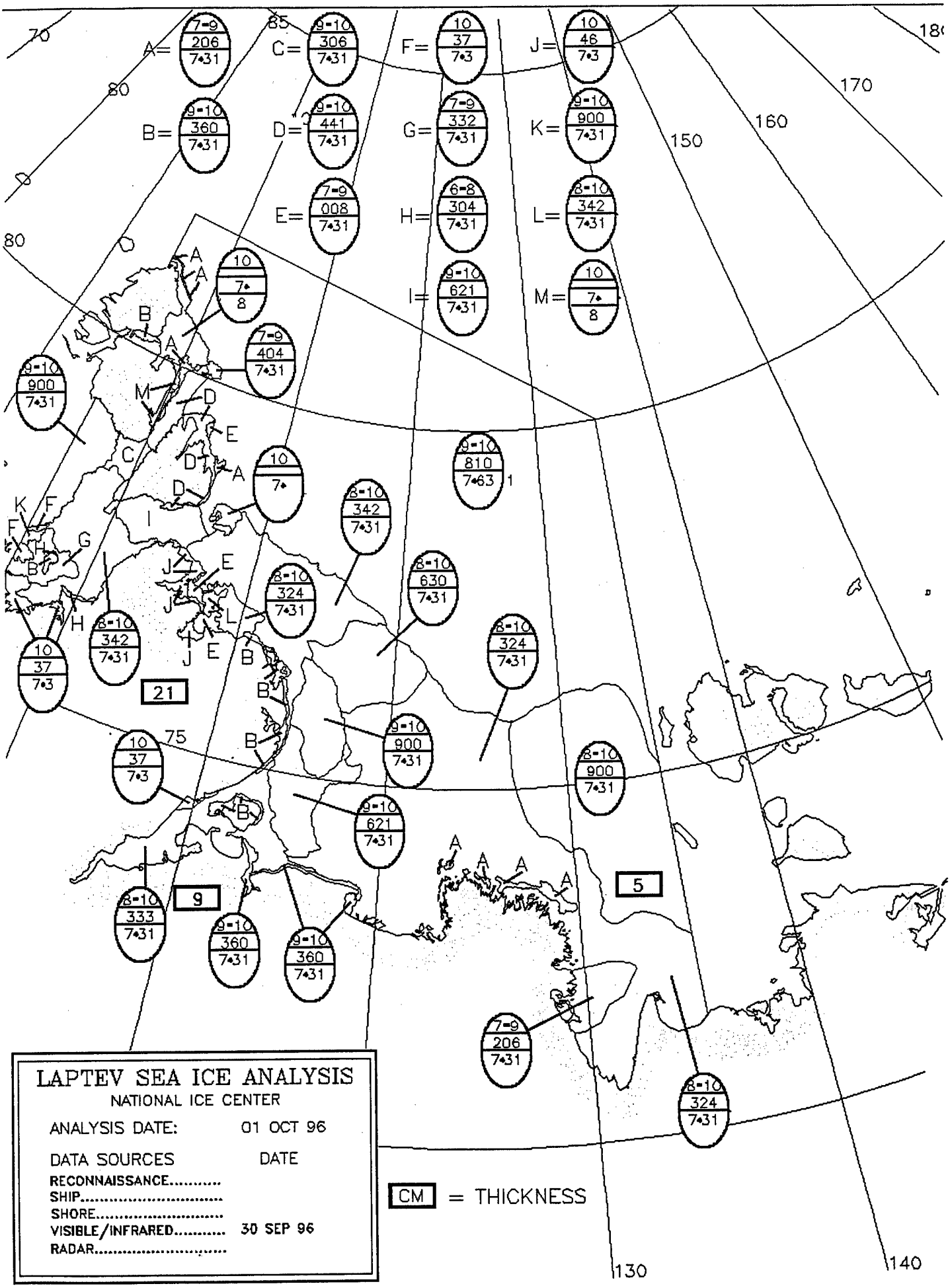
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	21–23 SEP 96
RADAR.....	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NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED..... 30 SEP 96
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B= 9-10 360 7•31
C= 9-10 306 7•31
D= 9-10 441 7•31
E= 7-9 008 7•31
F= 10 37 7•3
G= 7-9 332 7•31
H= 6-8 304 7•31
I= 9-10 621 7•31
J= 10 46 7•3
K= 9-10 900 7•31
L= 8-10 342 7•31
M= 10 7• 8
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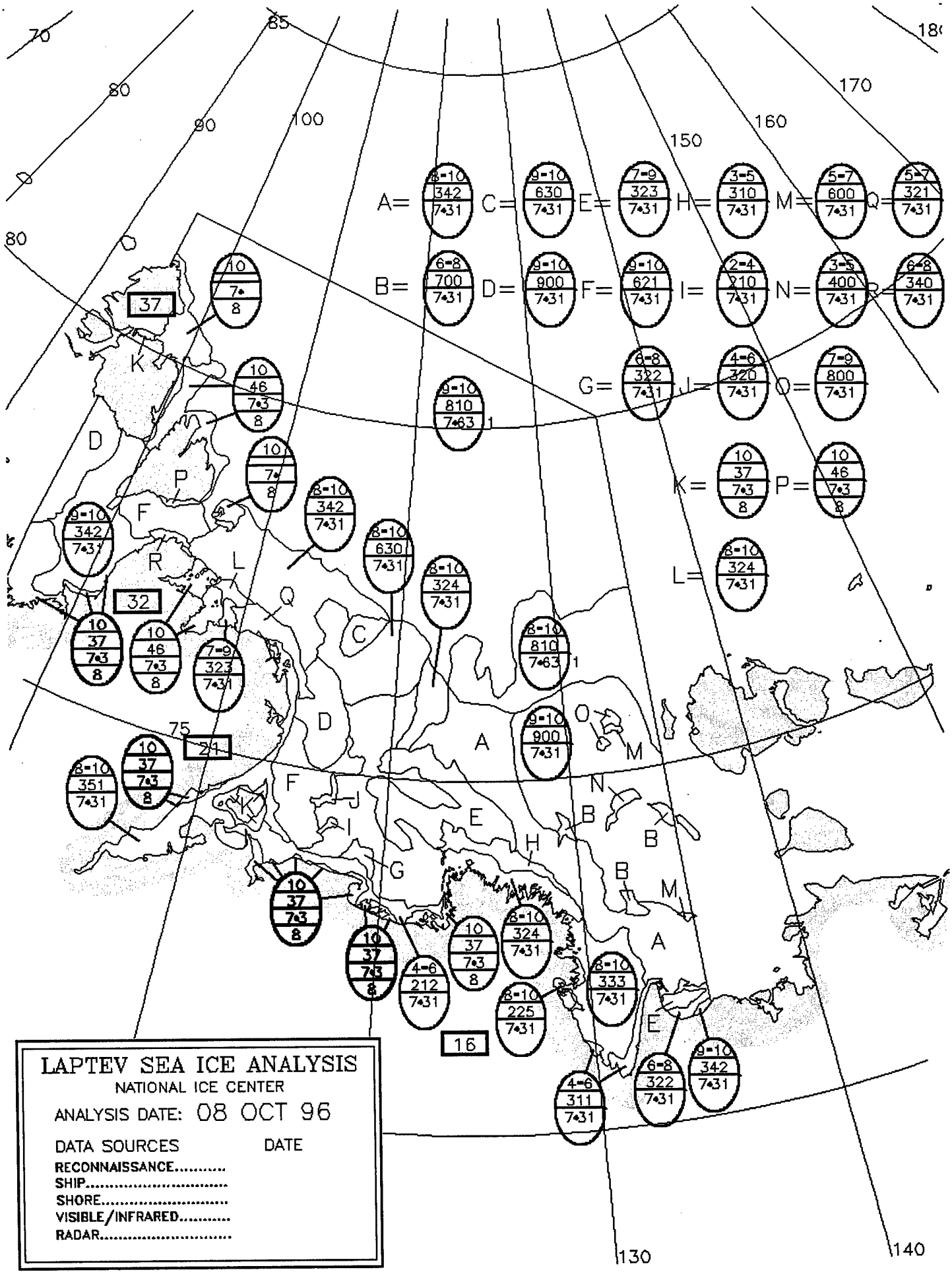
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NATIONAL ICE CENTER
ANALYSIS DATE: 08 OCT 96
DATA SOURCES
DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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C= 9-10 630 7•31
E= 7-9 323 7•31
H= 3-5 310 7•31
M= 5-7 600 7•31
Q= 5-7 321 7•31
B= 6-8 700 7•31
D= 9-10 900 7•31
F= 9-10 621 7•31
I= 2-4 210 7•31
N= 3-5 400 7•31
R= 6-8 340 7•31
G= 6-8 322 7•31
J= 4-6 320 7•31
O= 7-9 800 7•31
K= 10 37 7•3 8
P= 10 46 7•3 8
L= 8-10 324 7•31
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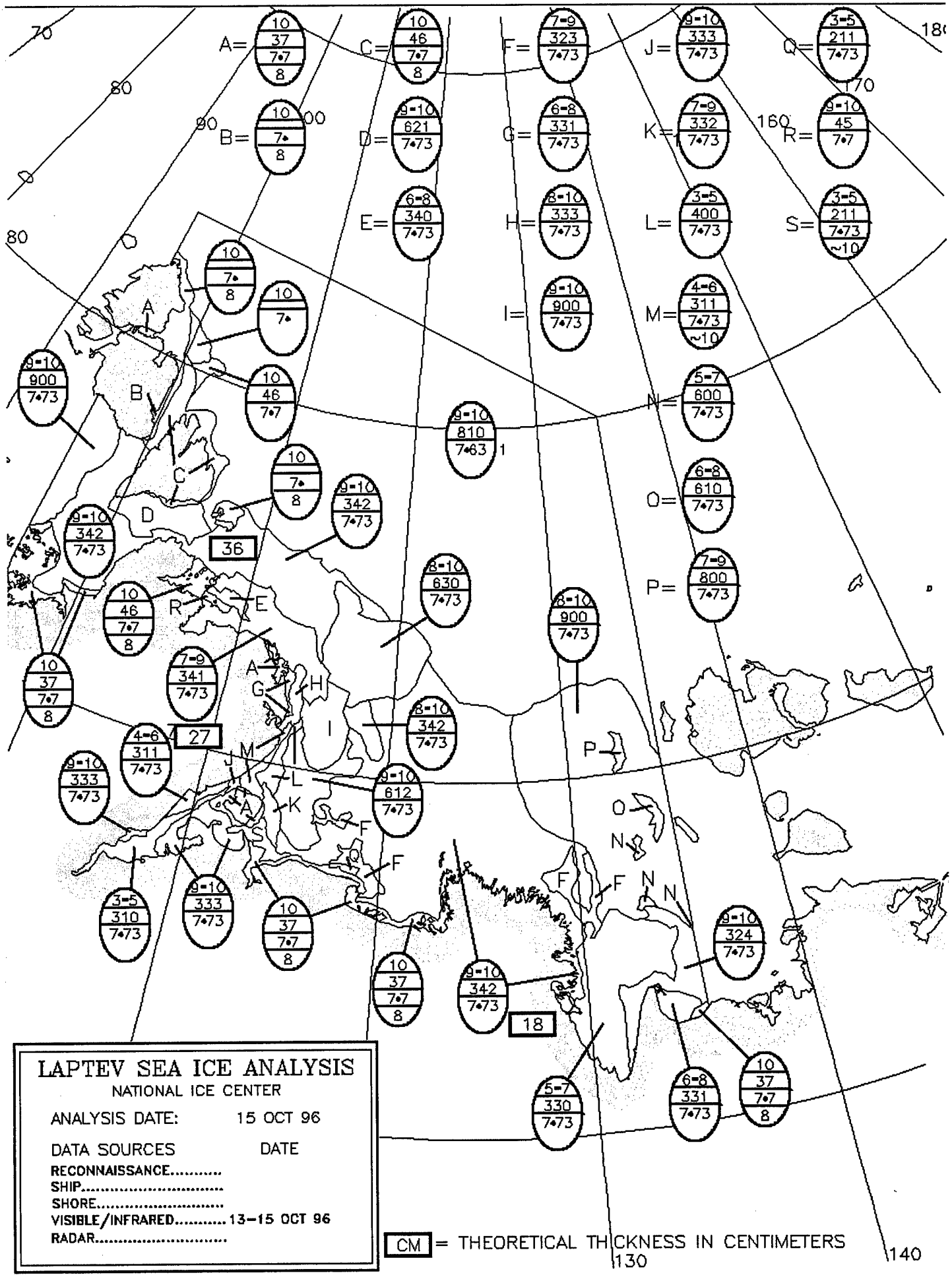
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NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....13-15 OCT 96
RADAR.....
CM = THEORETICAL THICKNESS IN CENTIMETERS
A= 10 37 7•7 8
B= 10 7• 8
C= 10 46 7•7 8
D= 9-10 621 7•73
E= 6-8 340 7•73
F= 7-9 323 7•73
G= 6-8 331 7•73
H= 8-10 333 7•73
I= 9-10 900 7•73
J= 9-10 333 7•73
K= 7-9 332 7•73
L= 3-5 400 7•73
M= 4-6 311 7•73 ~10
N= 5-7 600 7•73
O= 6-8 610 7•73
P= 7-9 800 7•73
Q= 3-5 211 7•73
R= 9-10 45 7•7
S= 3-5 211 7•73 ~10
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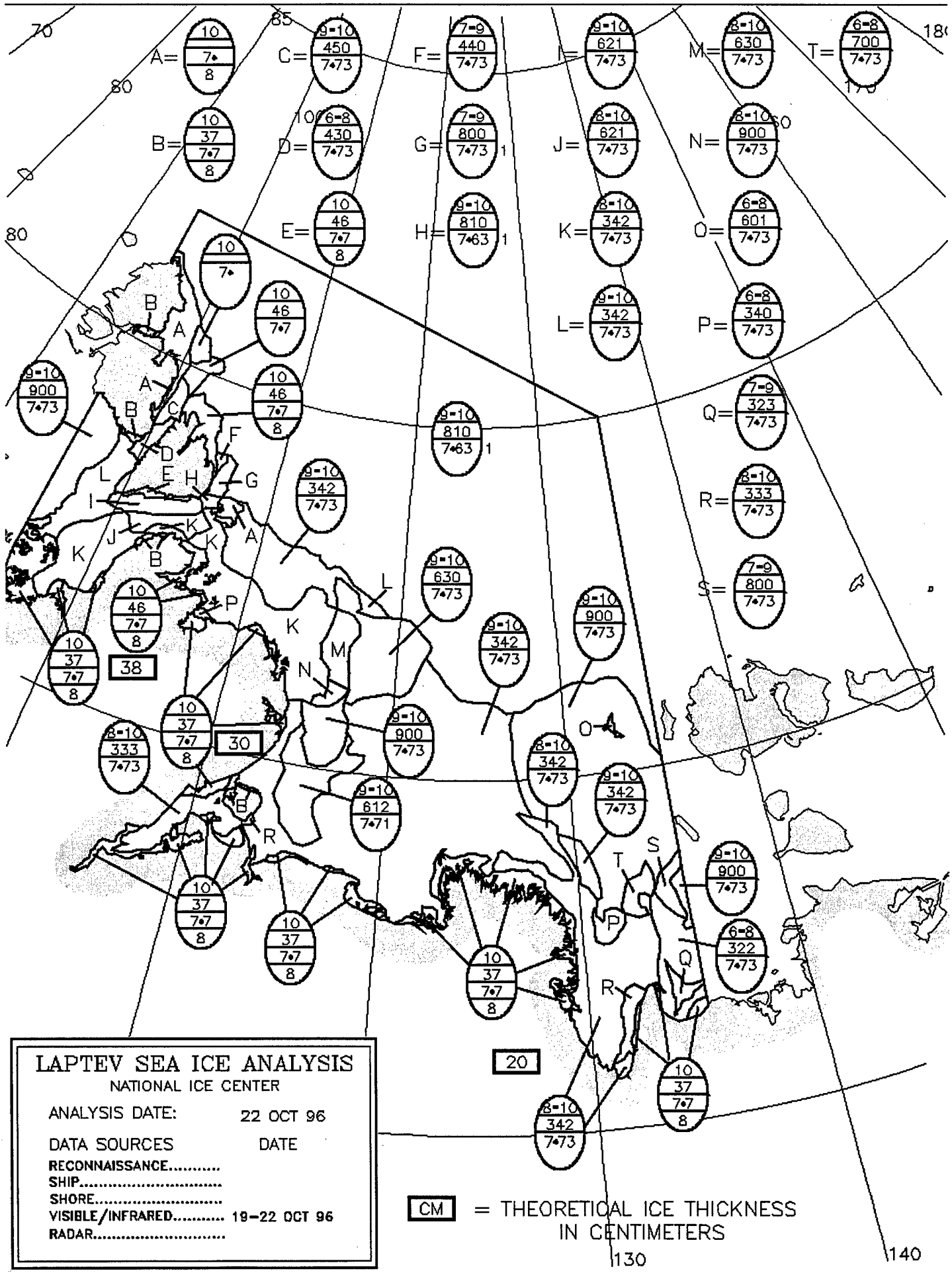
27
18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NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 19-22 OCT 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 / 7• / 8
B= 10 / 37 / 7•7 / 8
C= 9-10 / 450 / 7•73
D= 6-8 / 430 / 7•73
E= 10 / 46 / 7•7 / 8
F= 7-9 / 440 / 7•73
G= 7-9 / 800 / 7•73 1
H= 9-10 / 810 / 7•63 1
I= 9-10 / 621 / 7•73
J= 8-10 / 621 / 7•73
K= 8-10 / 342 / 7•73
L= 9-10 / 342 / 7•73
M= 8-10 / 630 / 7•73
N= 8-10 / 900 / 7•73
O= 6-8 / 601 / 7•73
P= 6-8 / 340 / 7•73
Q= 7-9 / 323 / 7•73
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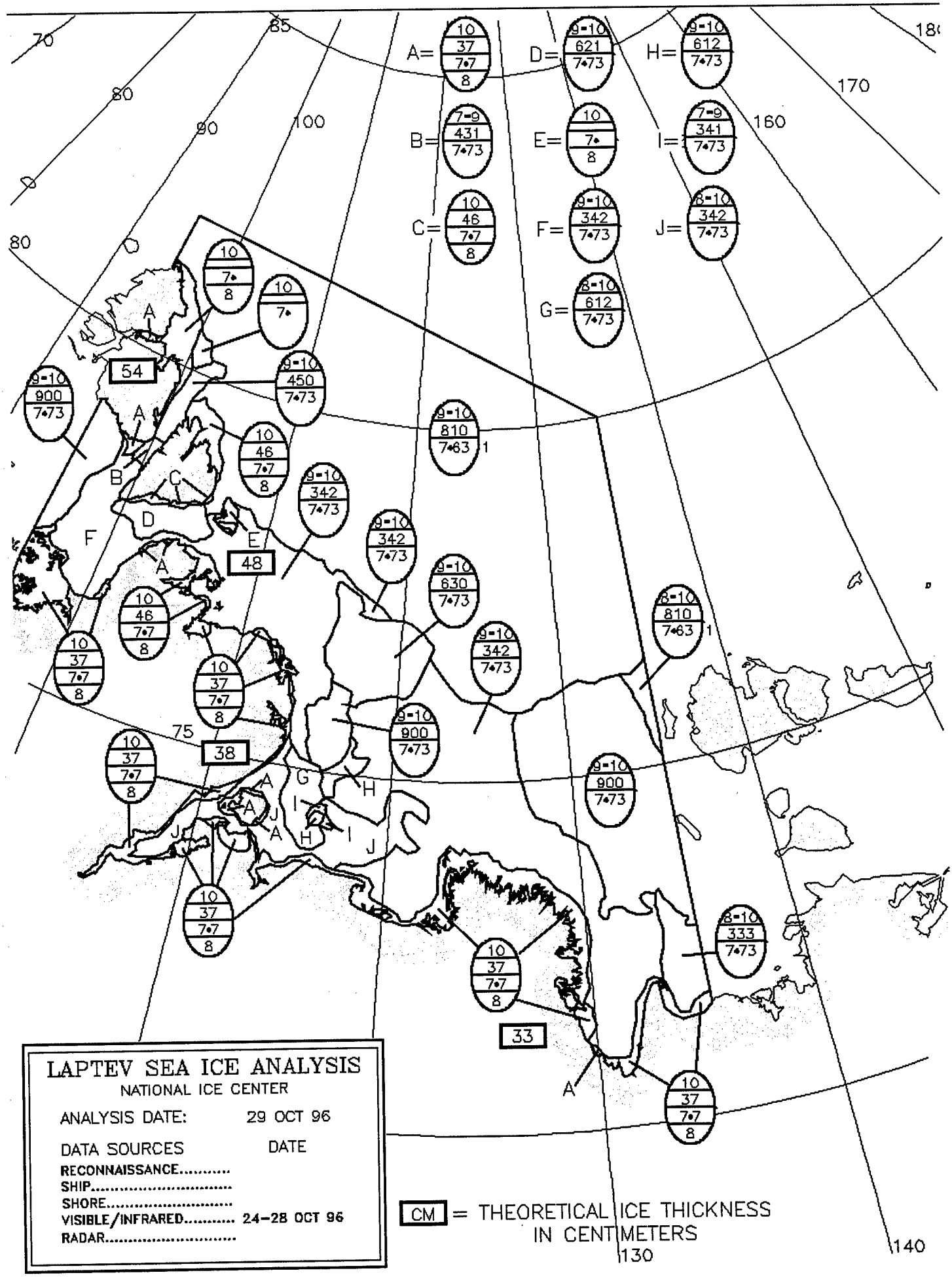
140


LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 24-28 OCT 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 37 7•7 8
B= 7-9 431 7•73
C= 10 46 7•7 8
D= 9-10 621 7•73
E= 10 7• 8
F= 9-10 342 7•73
G= 8-10 612 7•73
H= 9-10 612 7•73
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J= 8-10 342 7•73
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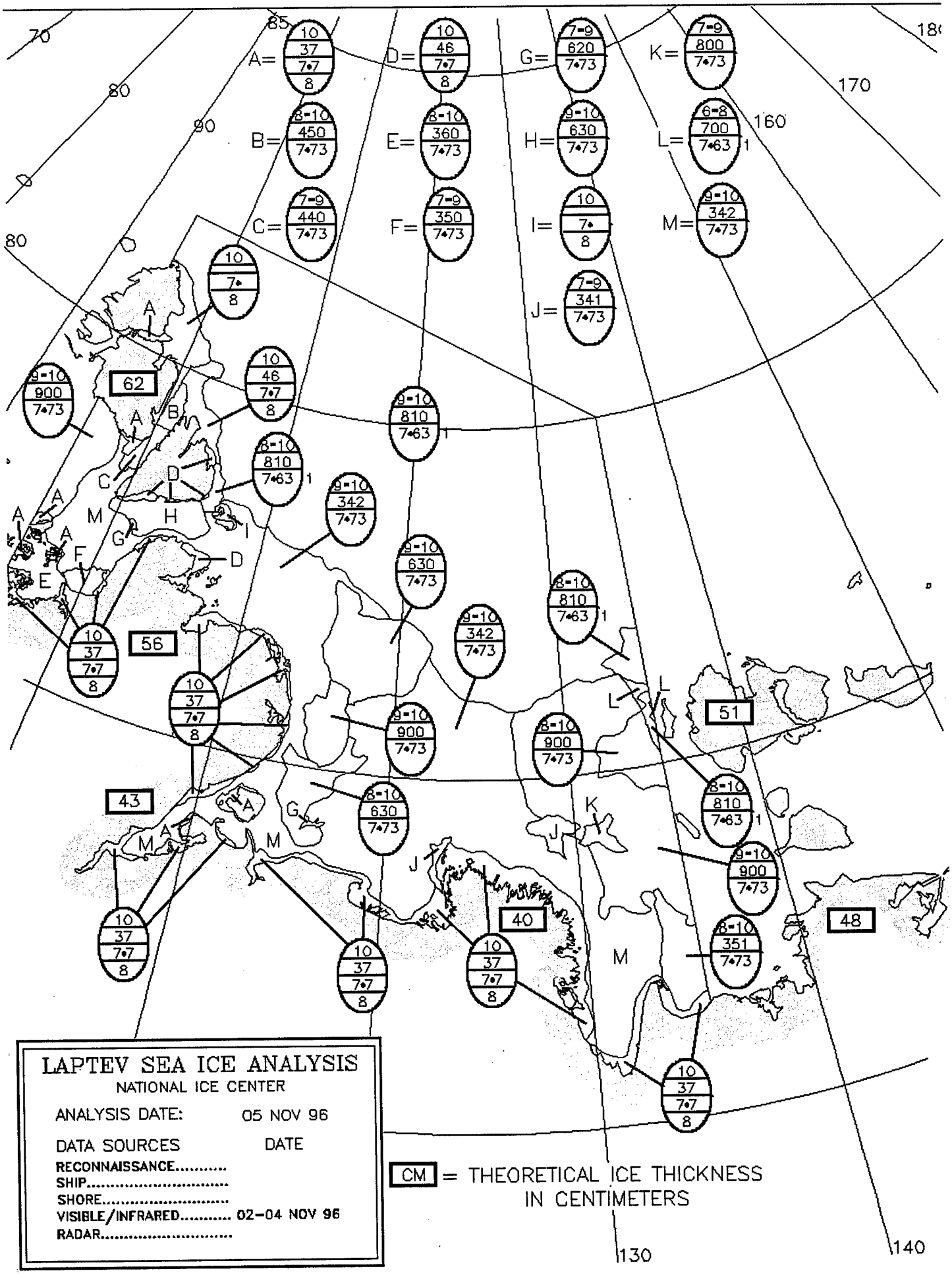
LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 02-04 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 37 7•7 8
B= 8-10 450 7•73
C= 7-9 440 7•73
D= 10 46 7•7 8
E= 8-10 360 7•73
F= 7-9 350 7•73
G= 7-9 620 7•73
H= 9-10 630 7•73
I= 10 7• 8
J= 7-9 341 7•73
K= 7-9 800 7•73
L= 6-8 700 7•63 1
M= 9-10 342 7•73
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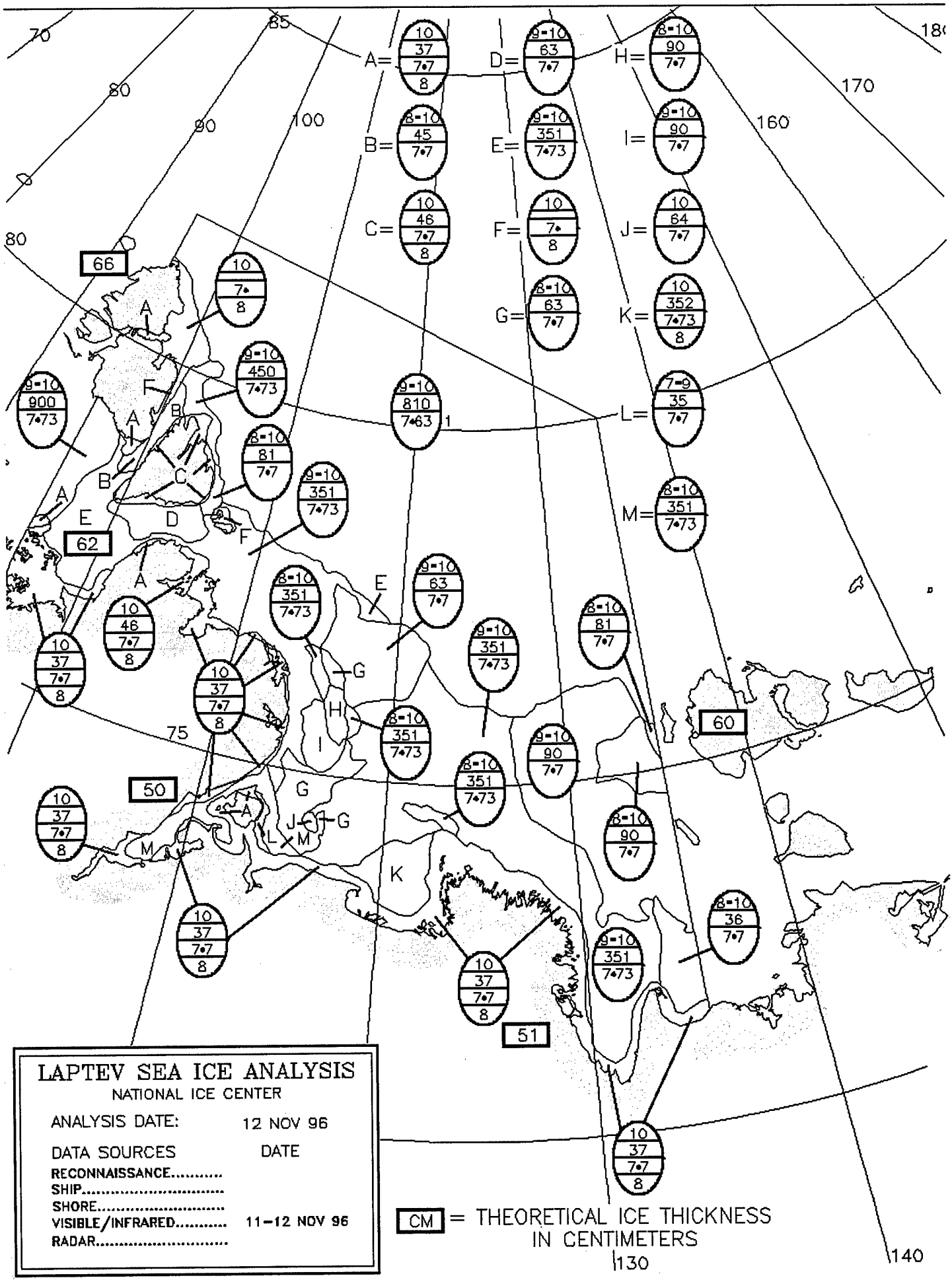
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NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11-12 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 37 7•7 8
B= 8-10 45 7•7
C= 10 46 7•7 8
D= 9-10 63 7•7
E= 9-10 351 7•73
F= 10 7• 8
G= 8-10 63 7•7
H= 8-10 90 7•7
I= 9-10 90 7•7
J= 10 64 7•7
K= 10 352 7•73 8
L= 7-9 35 7•7
M= 8-10 351 7•73
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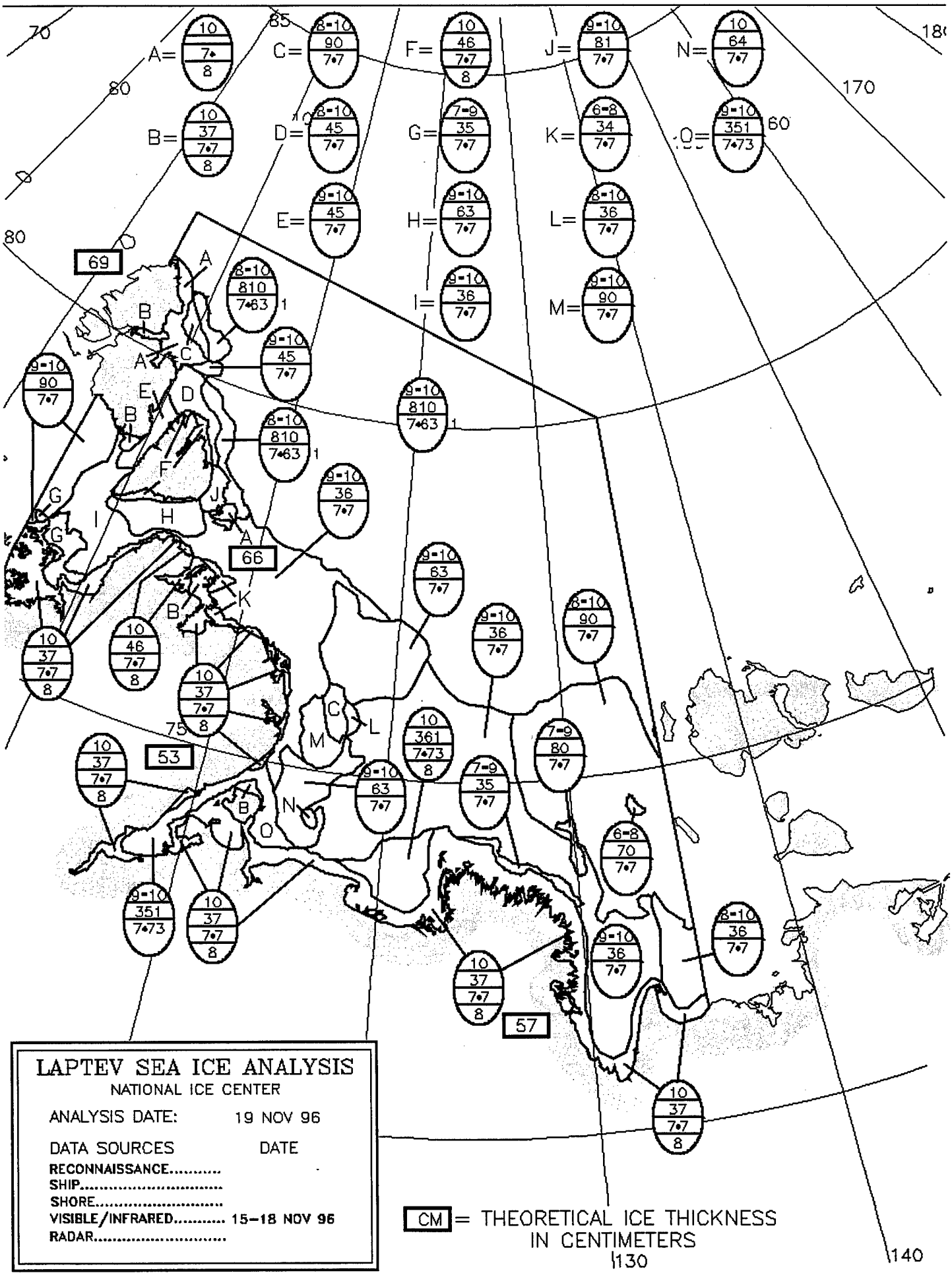
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NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15-18 NOV 96
RADAR.....
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B= 10 37 7•7 8
C= 8-10 90 7•7
D= 8-10 45 7•7
E= 9-10 45 7•7
F= 10 46 7•7 8
G= 7-9 35 7•7
H= 9-10 63 7•7
I= 9-10 36 7•7
J= 9-10 81 7•7
K= 6-8 34 7•7
L= 8-10 36 7•7
M= 9-10 90 7•7
N= 10 64 7•7
O= 9-10 351 7•73
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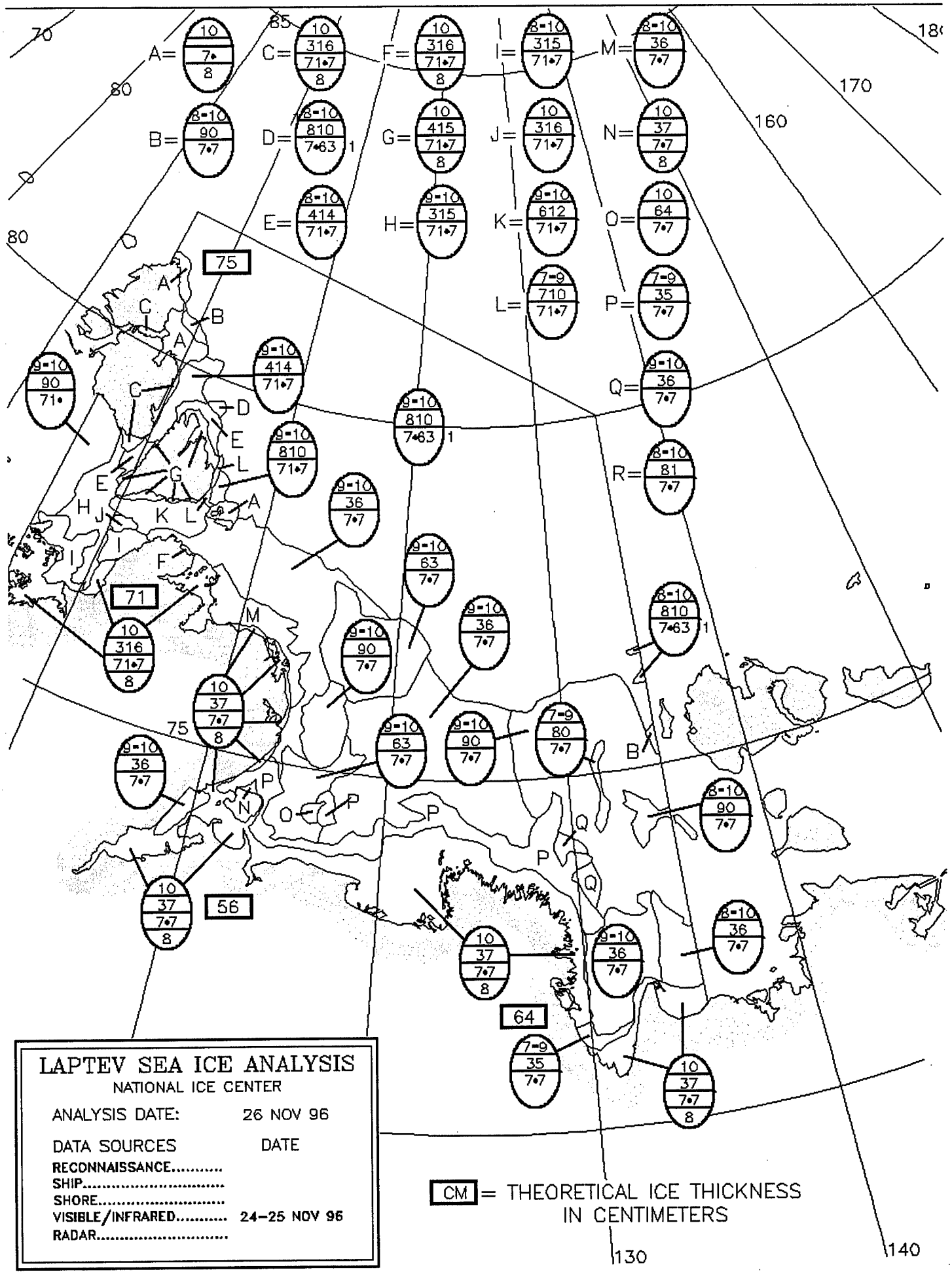
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NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 24-25 NOV 96
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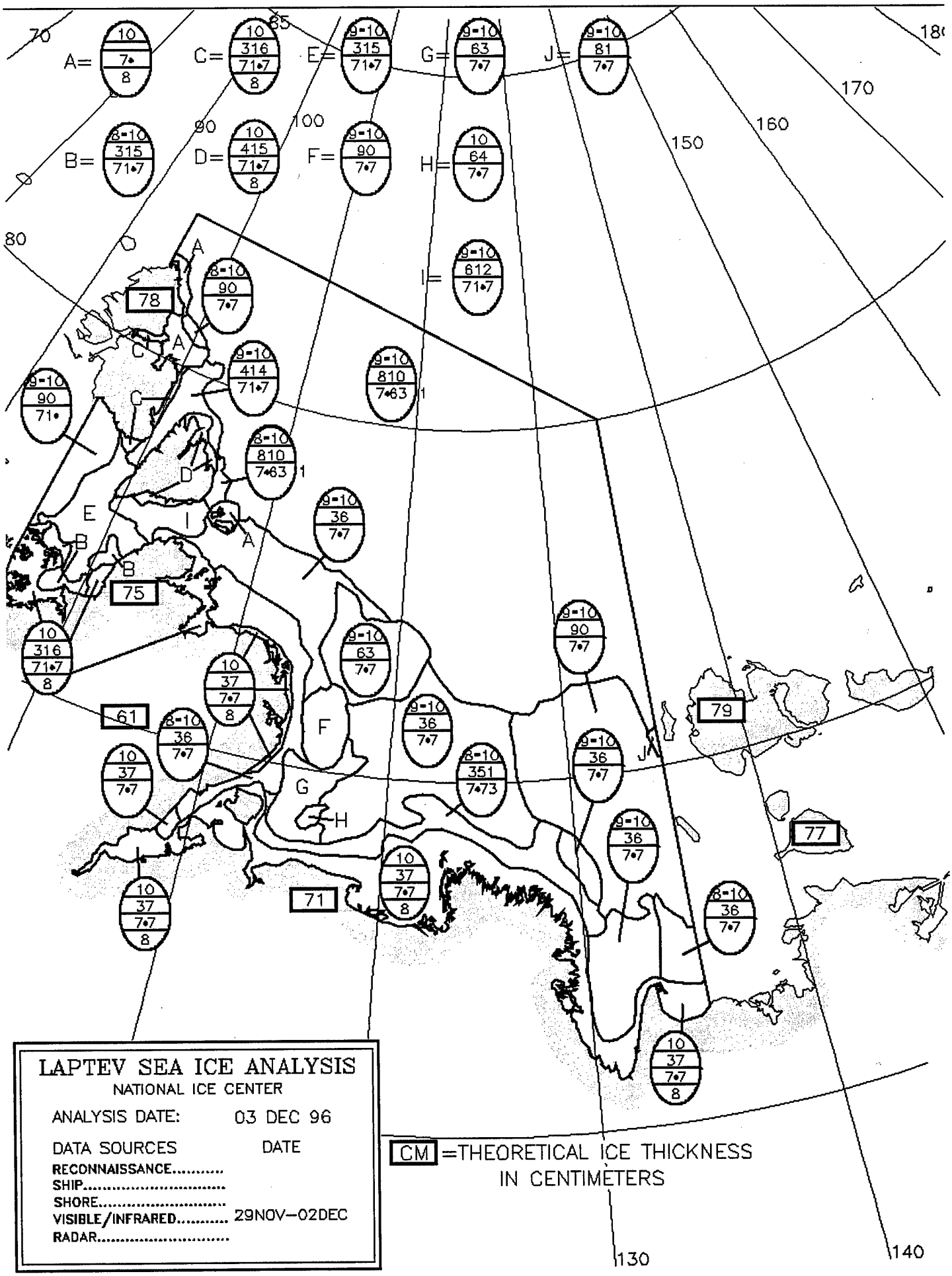
71
56
64
130
140
160
170


LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 03 DEC 96
DATA SOURCES DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED..... 29NOV–02DEC
RADAR.....
CM =THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 / 7• / 8
B= 8-10 / 315 / 71•7
C= 10 / 316 / 71•7 / 8
D= 10 / 415 / 71•7 / 8
E= 9-10 / 315 / 71•7
F= 9-10 / 90 / 7•7
G= 9-10 / 63 / 7•7
H= 10 / 64 / 7•7
I= 9-10 / 612 / 71•7
J= 9-10 / 81 / 7•7
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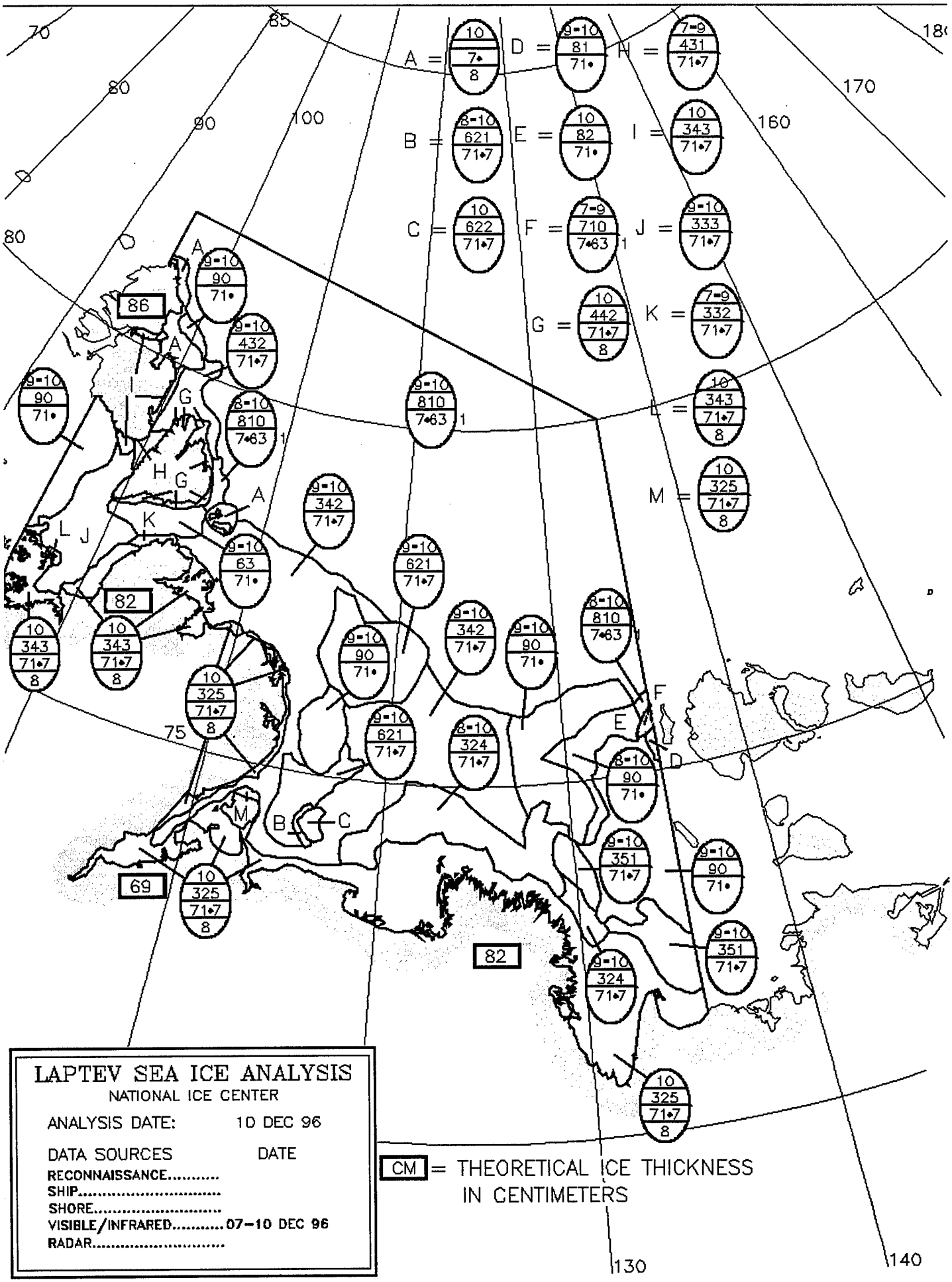
180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NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....07-10 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 / 7• / 8
B = 8-10 / 621 / 71•7
C = 10 / 622 / 71•7
D = 9-10 / 81 / 71•
E = 10 / 82 / 71•
F = 7-9 / 710 / 7•63
G = 10 / 442 / 71•7 / 8
H = 7-9 / 431 / 71•7
I = 10 / 343 / 71•7
J = 9-10 / 333 / 71•7
K = 7-9 / 332 / 71•7
L = 10 / 343 / 71•7 / 8
M = 10 / 325 / 71•7 / 8
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82
69
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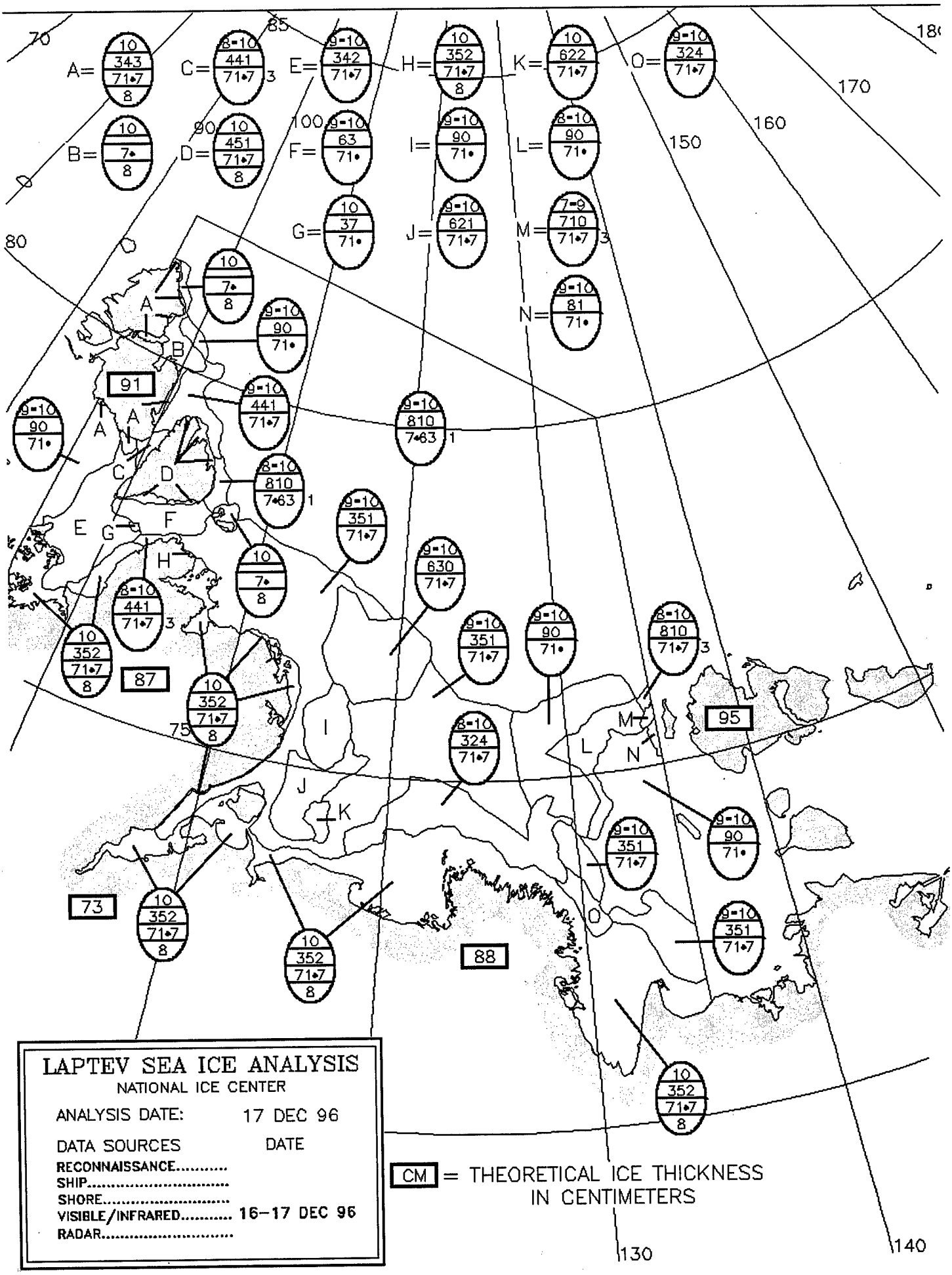
LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16-17 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
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160
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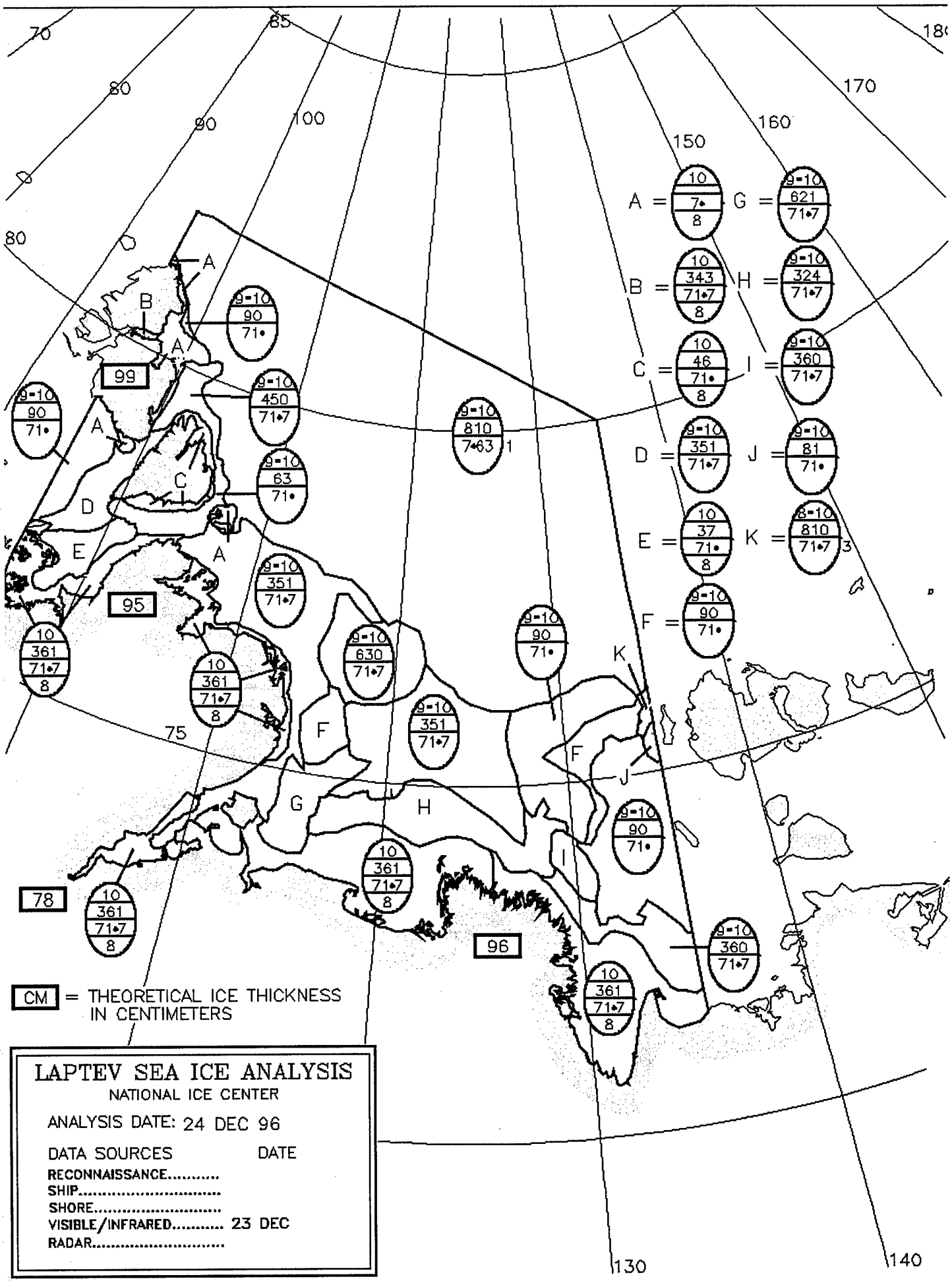
130
140


70
85
180
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90
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170
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150
80
75
130
140
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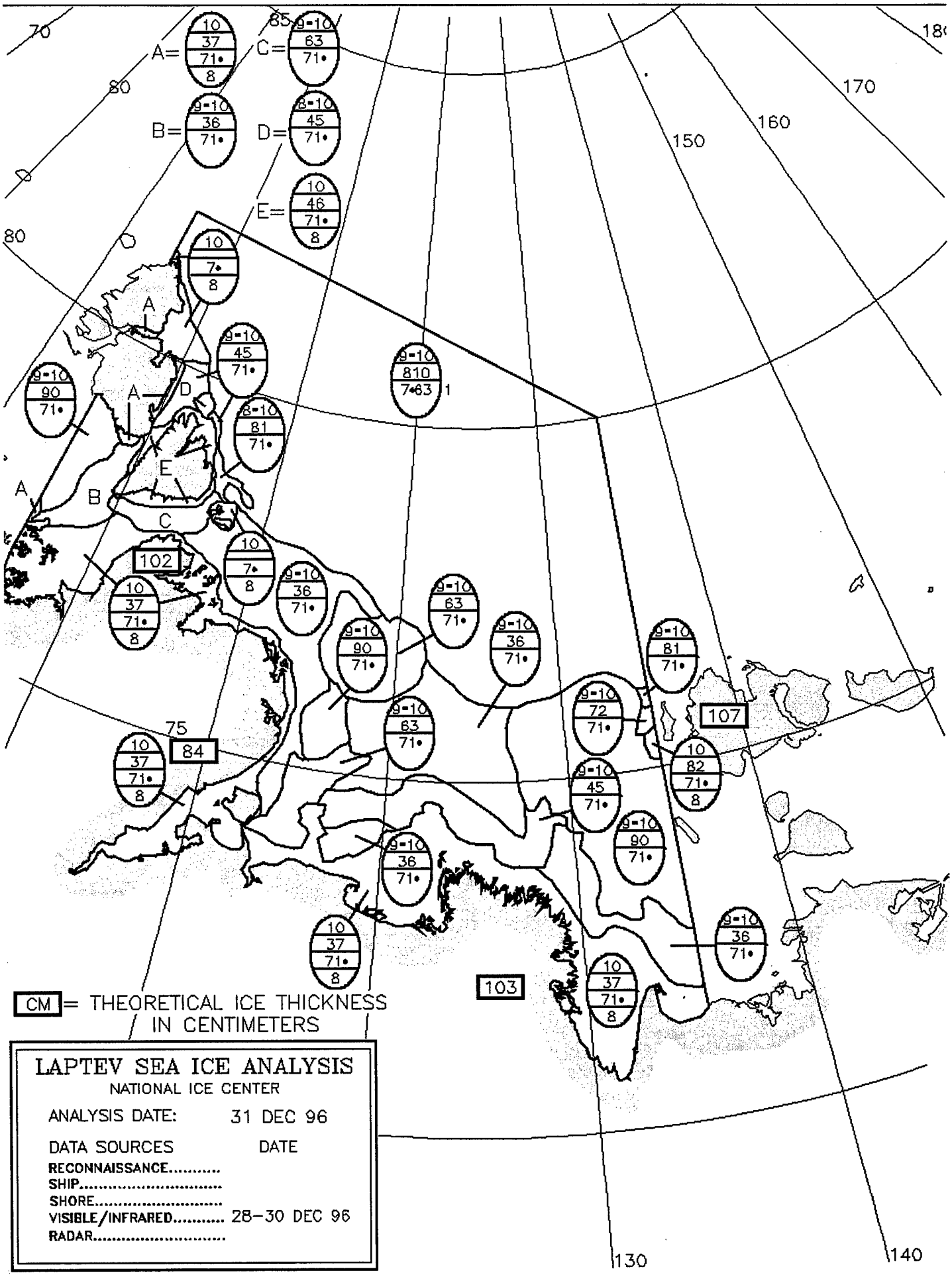
C = 10 / 46 / 71• / 8
D = 9-10 / 351 / 71•7
E = 10 / 37 / 71• / 8
F = 9-10 / 90 / 71•
G = 9-10 / 621 / 71•7
H = 9-10 / 324 / 71•7
I = 9-10 / 360 / 71•7
J = 9-10 / 81 / 71•
K = 8-10 / 810 / 71•7 3
99
95
78
96
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 23 DEC
RADAR.....


70
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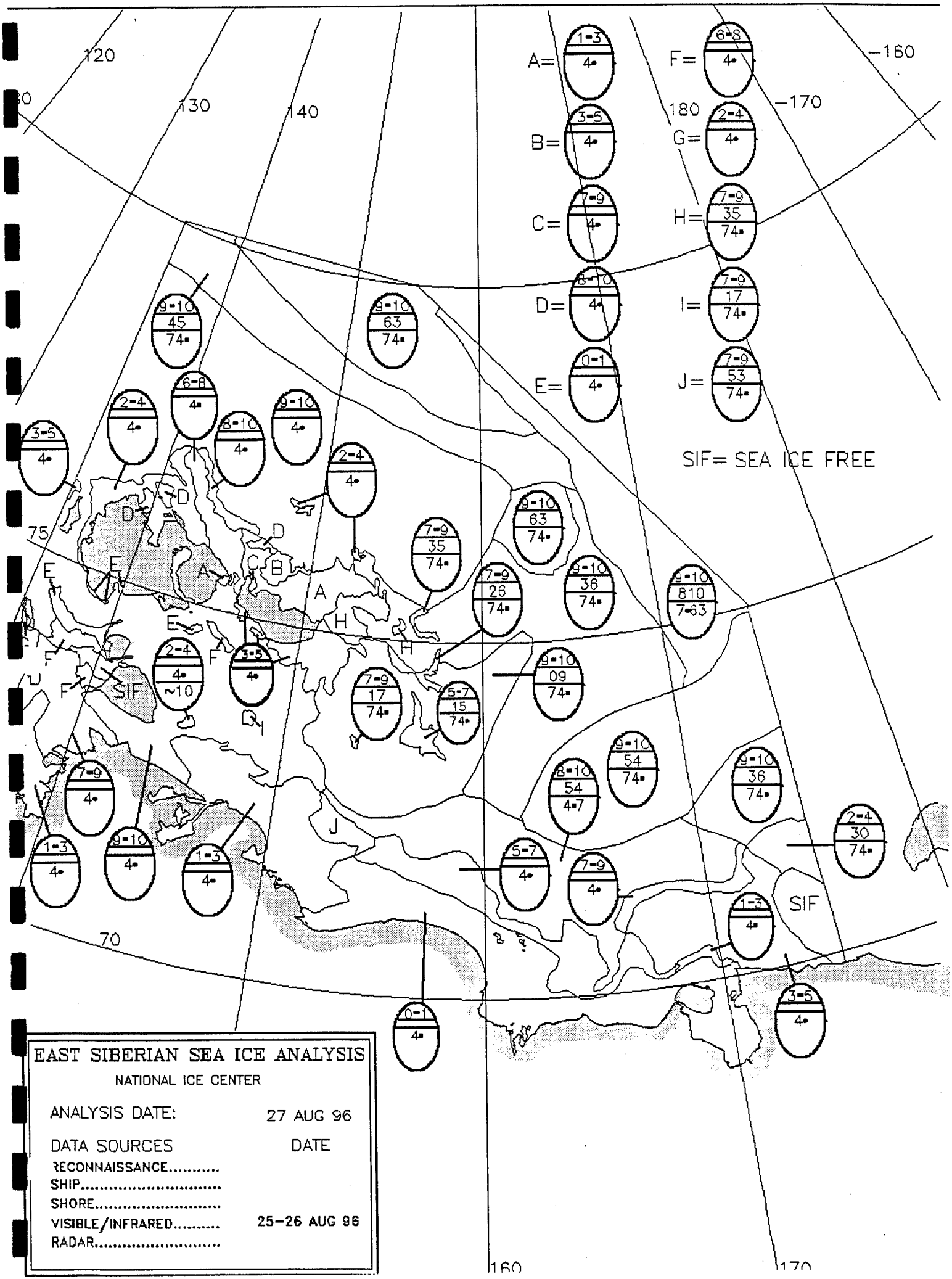
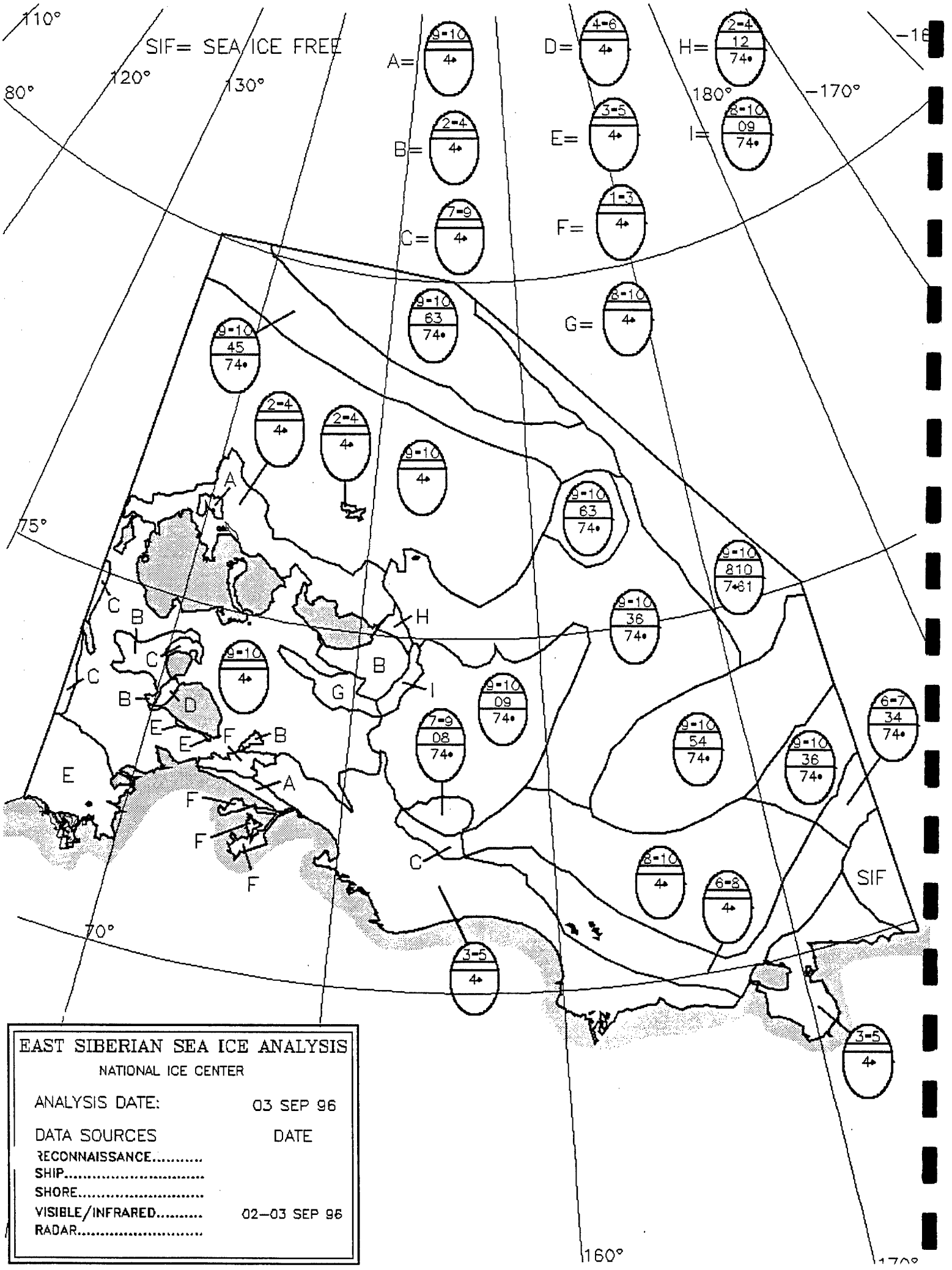
170
160
150
130
140
75
A=
B=
C=
D=
E=
102
103
107
84
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
LAPTEV SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28-30 DEC 96
RADAR.....

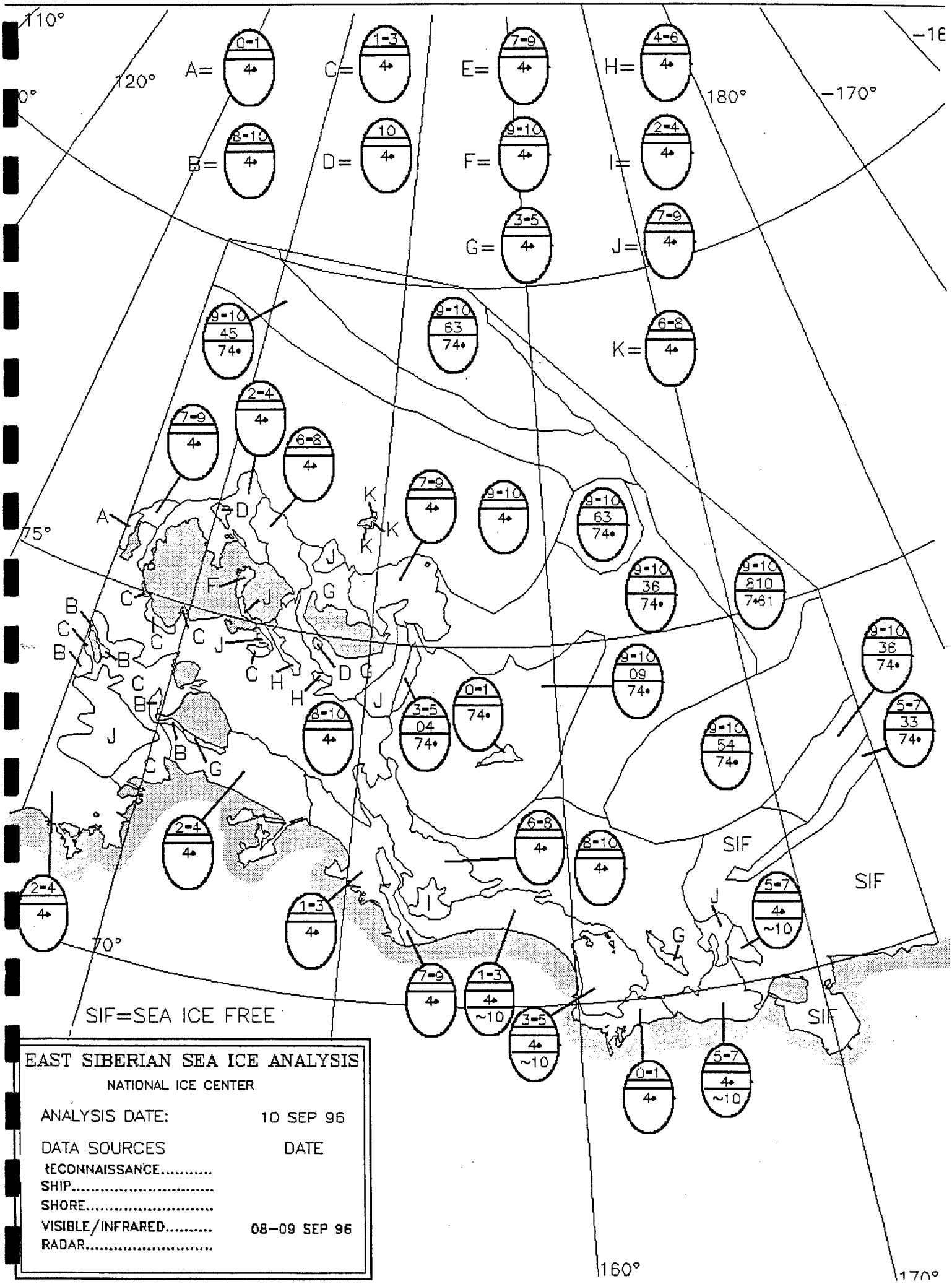

EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 AUG 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25-26 AUG 96
RADAR.....
SIF= SEA ICE FREE
A= 1-3 4•
B= 3-5 4•
C= 7-9 4•
D= 8-10 4•
E= 0-1 4•
F= 6-8 4•
G= 2-4 4•
H= 7-9 35 74•
I= 7-9 17 74•
J= 7-9 53 74•
120
130
140
180
-170
-160
75
70
160
170
SIF

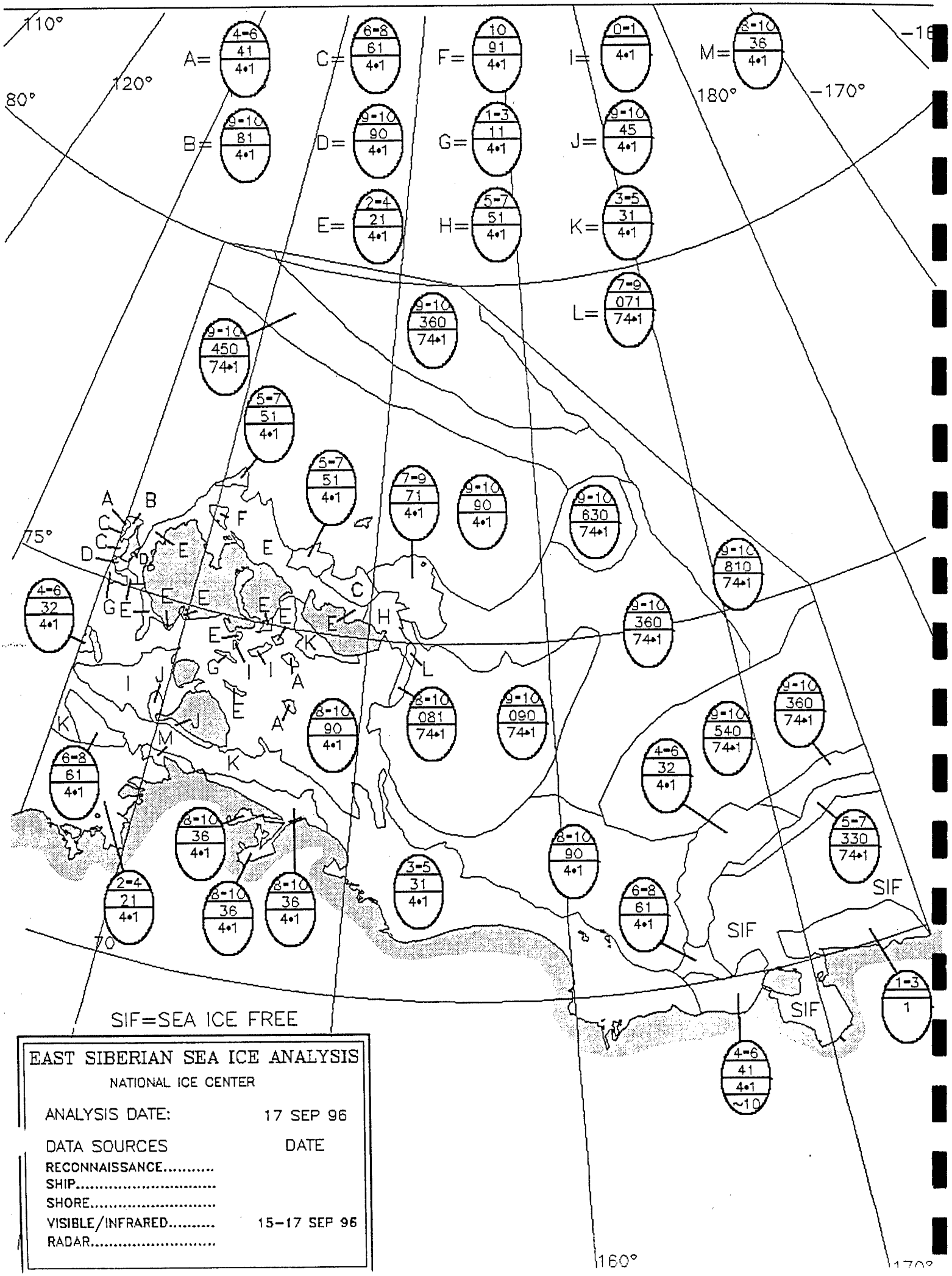


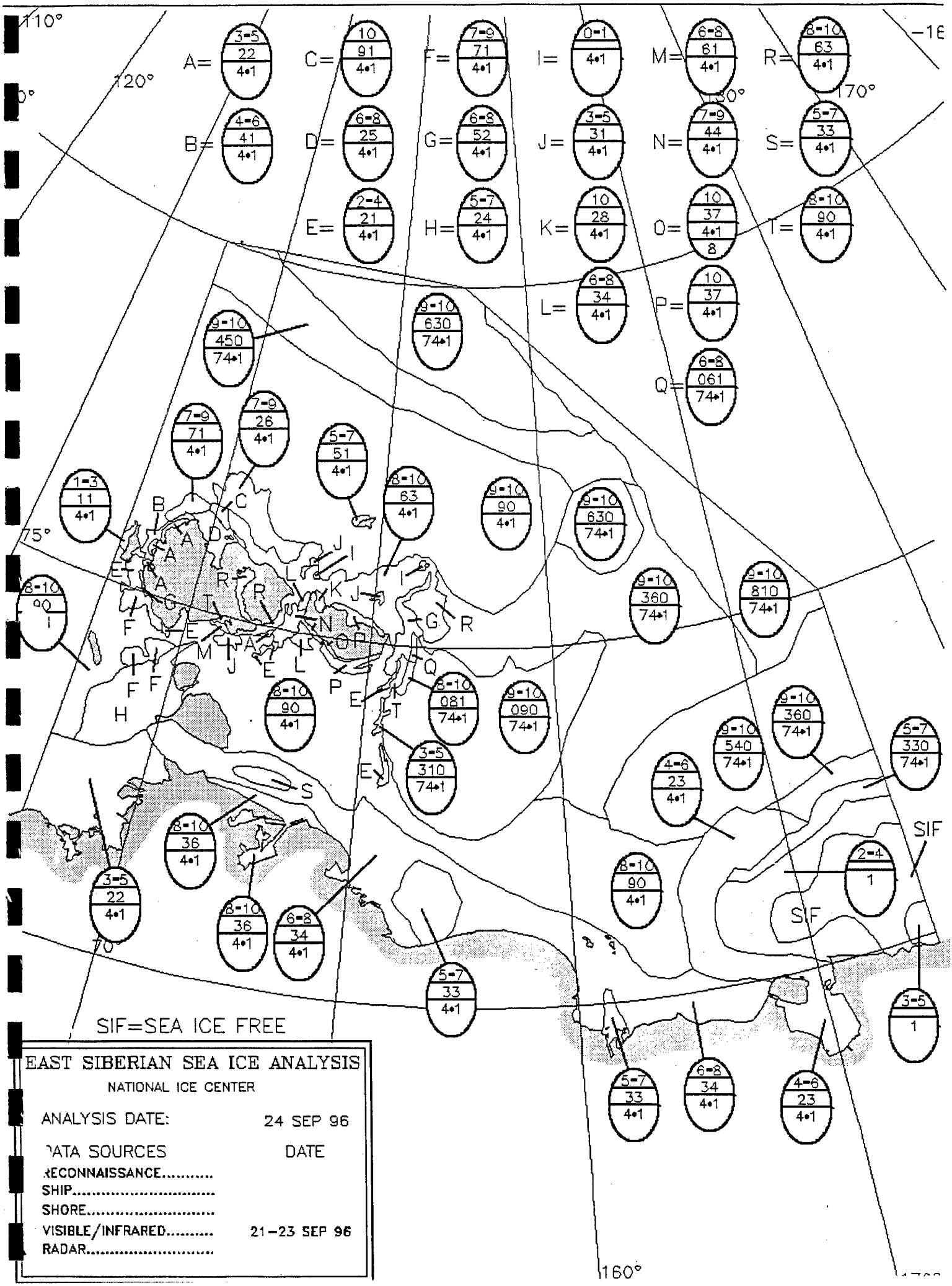
EAST SIBERIAN SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE:	03 SEP 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	02–03 SEP 96
RADAR.....	


110°
120°
180°
−170°
−160°
170°
75°
70°
A= 0-1 4+
C= 1-3 4+
E= 7-9 4+
H= 4-6 4+
B= 8-10 4+
D= 10 4+
F= 9-10 4+
I= 2-4 4+
G= 3-5 4+
J= 7-9 4+
K= 6-8 4+
9-10 45 74+
9-10 63 74+
9-10 63 74+
9-10 36 74+
9-10 810 7+61
9-10 36 74+
9-10 09 74+
0-1 74+
3-5 04 74+
8-10 4+
9-10 54 74+
5-7 33 74+
2-4 4+
6-8 4+
8-10 4+
SIF
5-7 4+ ~10
1-3 4+
7-9 4+
1-3 4+ ~10
3-5 4+ ~10
0-1 4+
5-7 4+ ~10
SIF=SEA ICE FREE
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 08-09 SEP 96
RADAR.....


110°
120°
80°
180°
-170°
-16
75°
70
160°
170°
A= 4-6 / 41 / 4•1
B= 9-10 / 81 / 4•1
C= 6-8 / 61 / 4•1
D= 9-10 / 90 / 4•1
E= 2-4 / 21 / 4•1
F= 10 / 91 / 4•1
G= 1-3 / 11 / 4•1
H= 5-7 / 51 / 4•1
I= 0-1 / 4•1
J= 9-10 / 45 / 4•1
K= 3-5 / 31 / 4•1
L= 7-9 / 071 / 74•1
M= 8-10 / 36 / 4•1
9-10 / 450 / 74•1
9-10 / 360 / 74•1
5-7 / 51 / 4•1
5-7 / 51 / 4•1
7-9 / 71 / 4•1
9-10 / 90 / 4•1
9-10 / 630 / 74•1
9-10 / 810 / 74•1
4-6 / 32 / 4•1
9-10 / 360 / 74•1
8-10 / 90 / 4•1
8-10 / 081 / 74•1
9-10 / 090 / 74•1
9-10 / 540 / 74•1
9-10 / 360 / 74•1
4-6 / 32 / 4•1
6-8 / 61 / 4•1
8-10 / 36 / 4•1
5-7 / 330 / 74•1
8-10 / 90 / 4•1
3-5 / 31 / 4•1
2-4 / 21 / 4•1
8-10 / 36 / 4•1
8-10 / 36 / 4•1
6-8 / 61 / 4•1
SIF
SIF
SIF
1-3 / 1
4-6 / 41 / 4•1 / ~10
SIF=SEA ICE FREE
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15-17 SEP 96
RADAR.....



EAST SIBERIAN SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 24 SEP 96

DATA SOURCES DATE

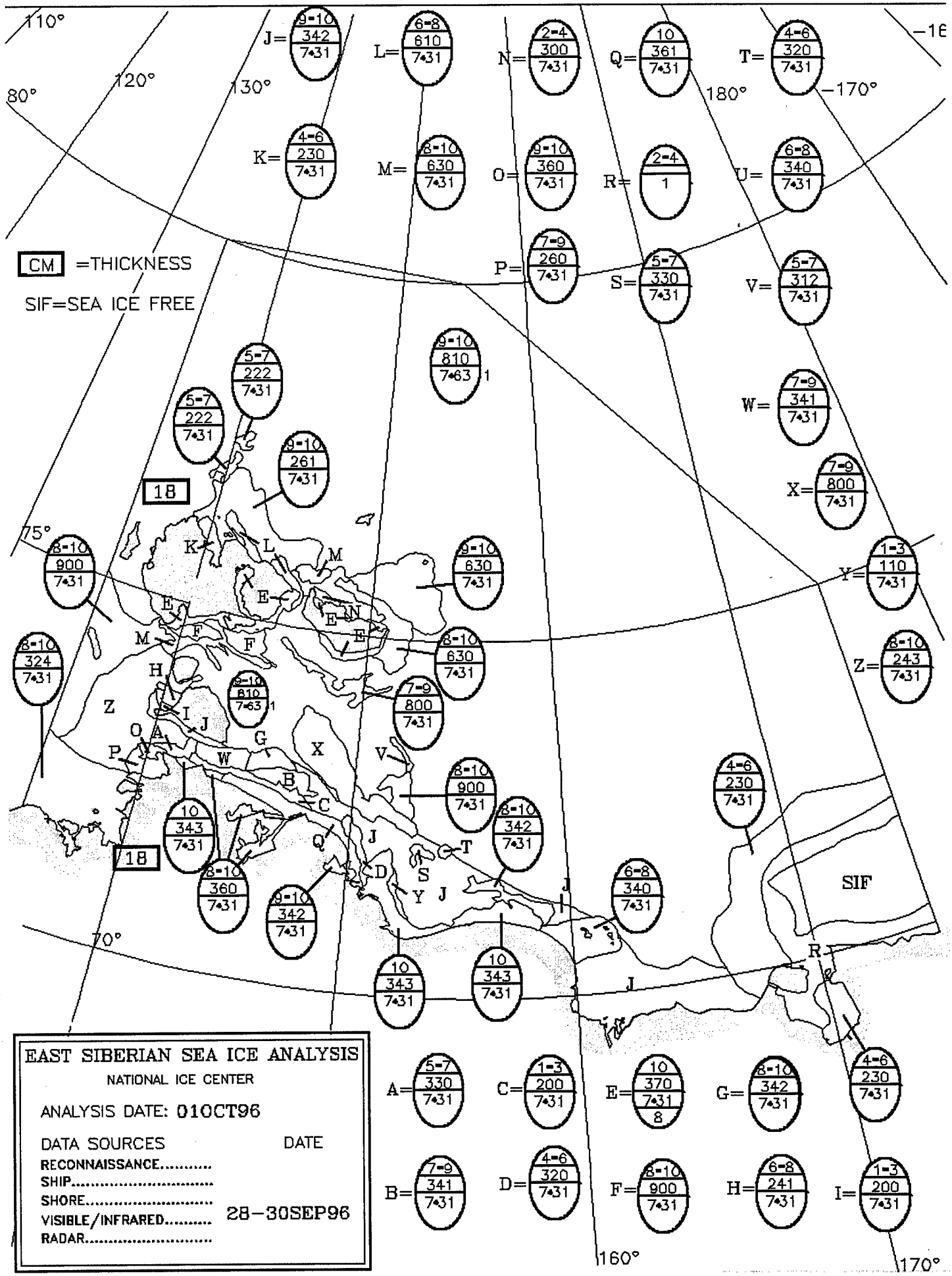
RECONNAISSANCE.....

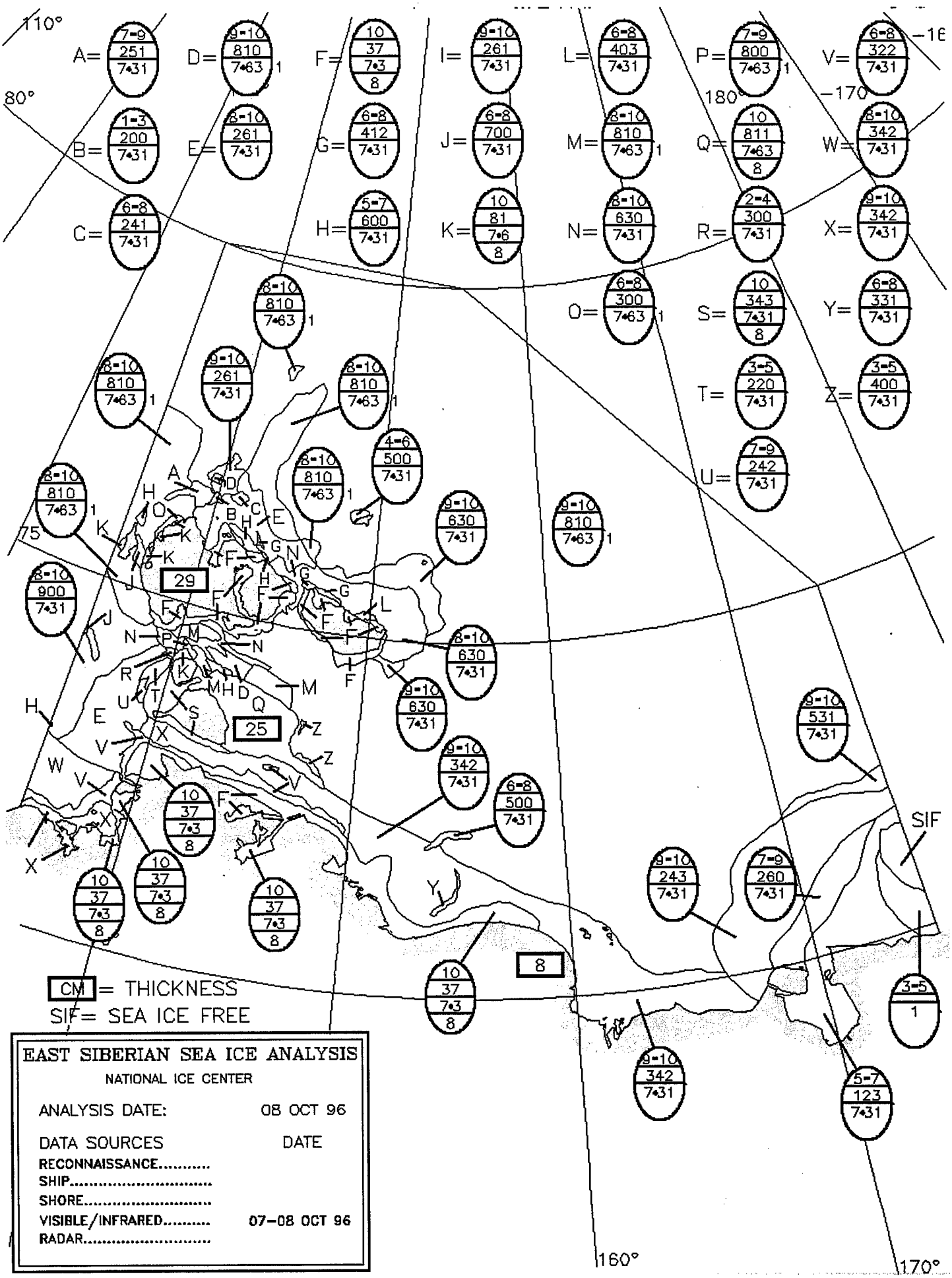
SHIP.....

SHORE.....

VISIBLE/INFRARED..... 21-23 SEP 96

RADAR.....

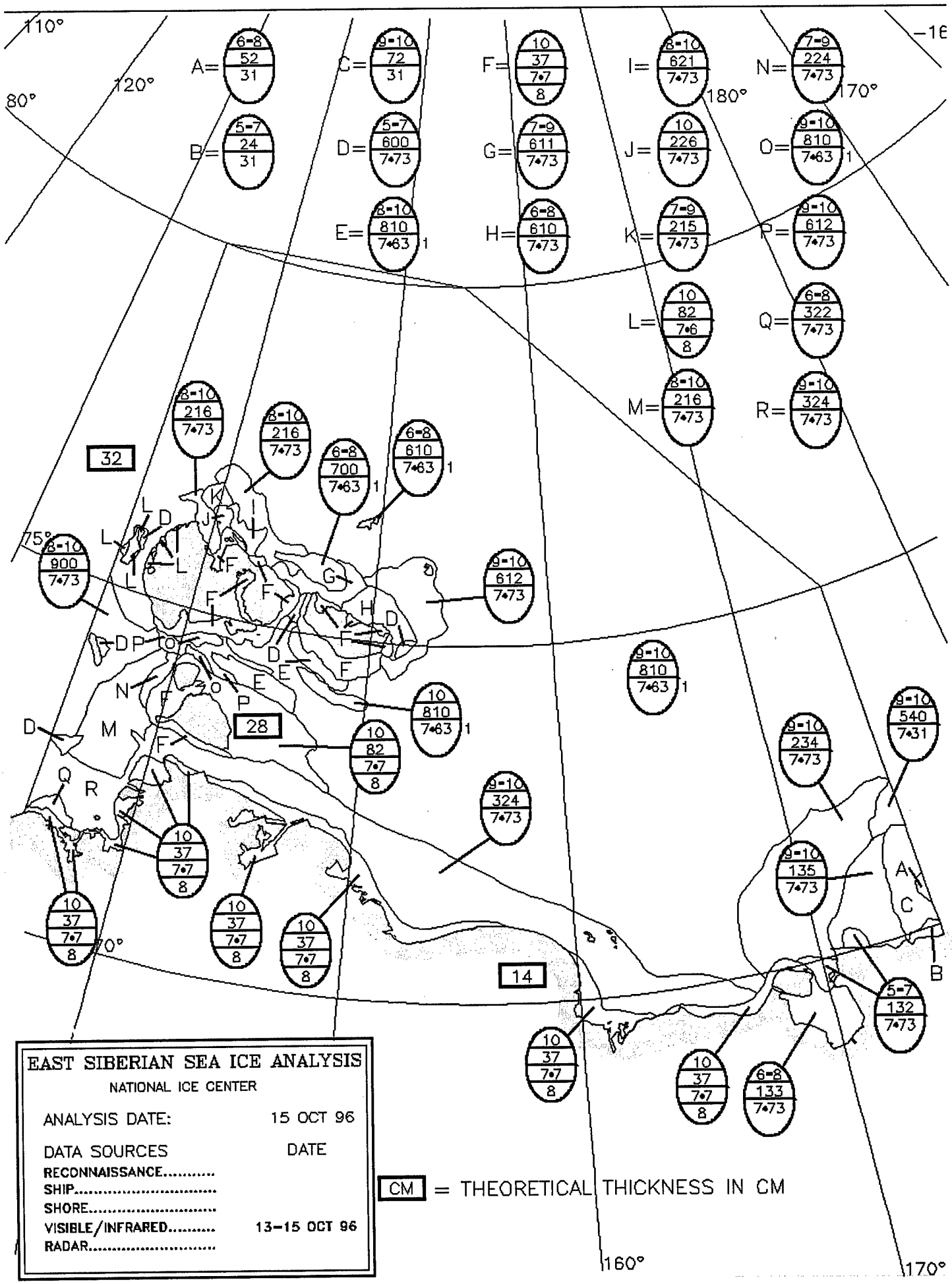

EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01OCT96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
28-30SEP96
CM =THICKNESS
SIF=SEA ICE FREE
SIF
110°
120°
130°
80°
180°
-170°
-16
160°
170°
75°
70°
18
18

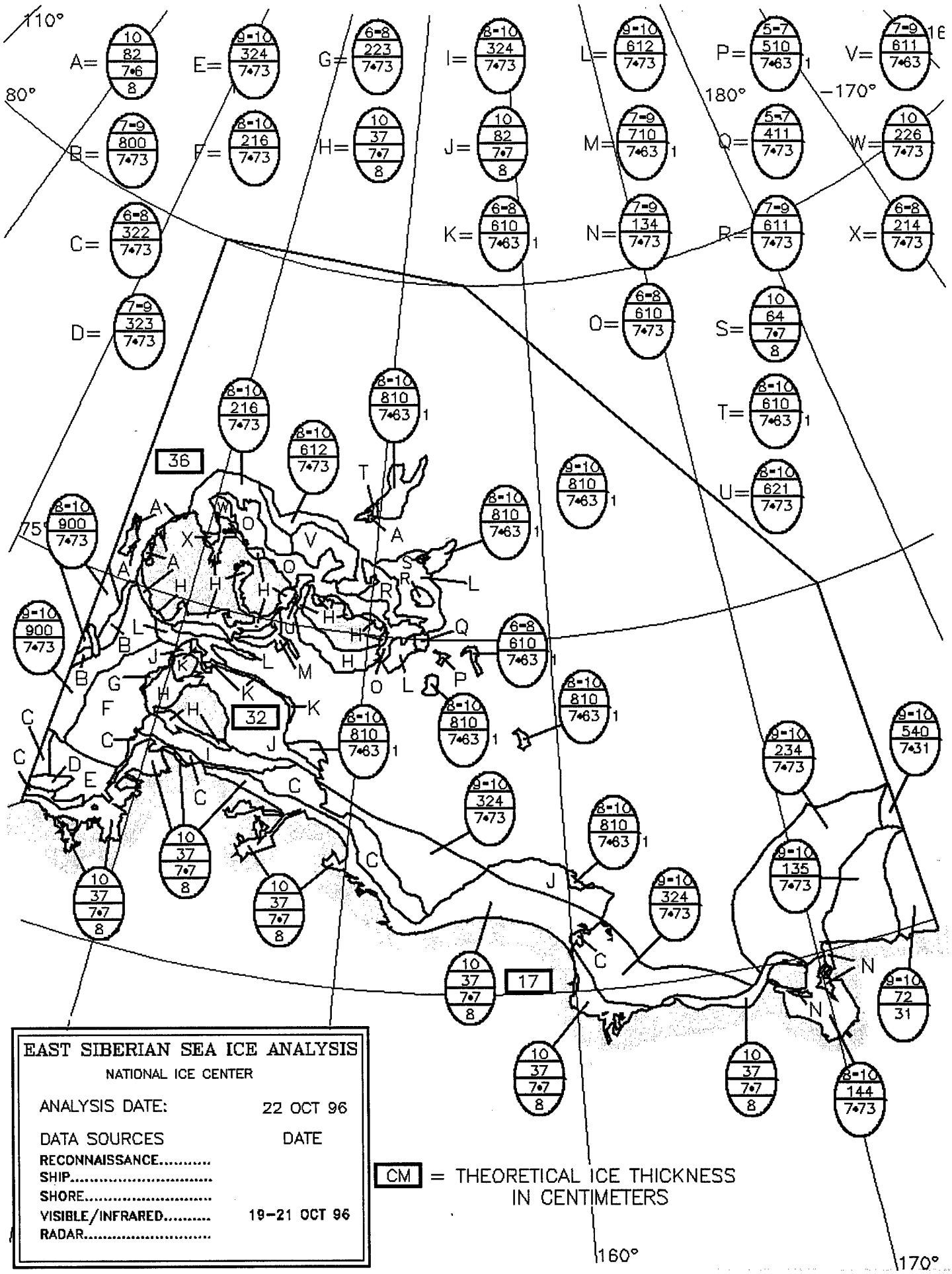


EAST SIBERIAN SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE:	08 OCT 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	07–08 OCT 96
RADAR.....	


110°
120°
80°
-16
180°
170°
75°
70°
160°
170°
A= 6-8 52 31
B= 5-7 24 31
C= 9-10 72 31
D= 5-7 600 7•73
E= 8-10 810 7•63 1
F= 10 37 7•7 8
G= 7-9 611 7•73
H= 6-8 610 7•73
I= 8-10 621 7•73
J= 10 226 7•73
K= 7-9 215 7•73
L= 10 82 7•6 8
M= 8-10 216 7•73
N= 7-9 224 7•73
O= 9-10 810 7•63 1
P= 9-10 612 7•73
Q= 6-8 322 7•73
R= 9-10 324 7•73
32
28
14
8-10 216 7•73
8-10 216 7•73
6-8 700 7•63 1
6-8 610 7•63 1
8-10 900 7•73
9-10 612 7•73
9-10 810 7•63 1
10 810 7•63 1
10 82 7•7 8
9-10 324 7•73
10 37 7•7 8
9-10 234 7•73
9-10 540 7•31
9-10 135 7•73
5-7 132 7•73
6-8 133 7•73
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 13-15 OCT 96
RADAR.....
CM = THEORETICAL THICKNESS IN CM

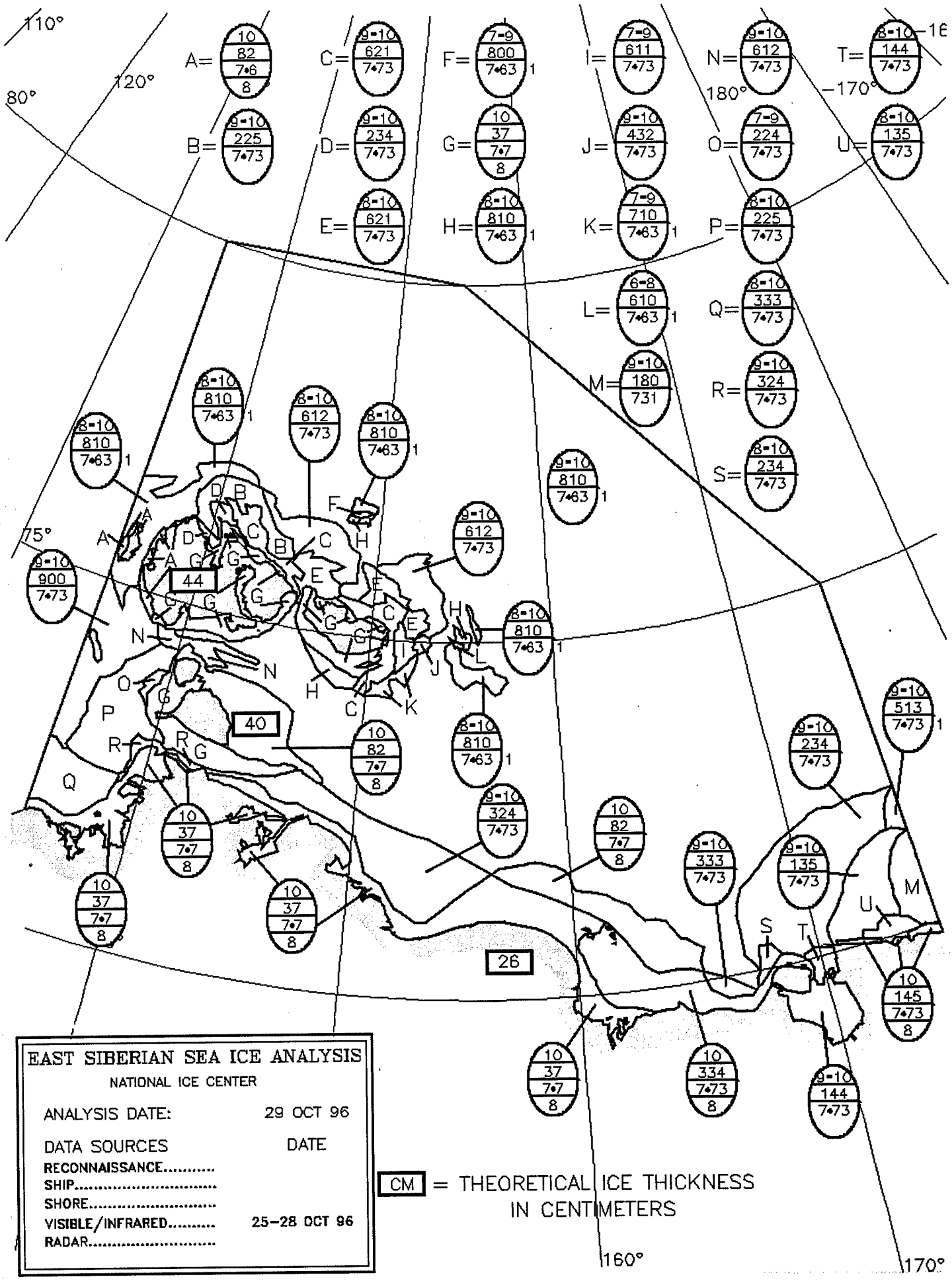


EAST SIBERIAN SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE:	22 OCT 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	19-21 OCT 96
RADAR.....	

CM = THEORETICAL ICE THICKNESS IN CENTIMETERS

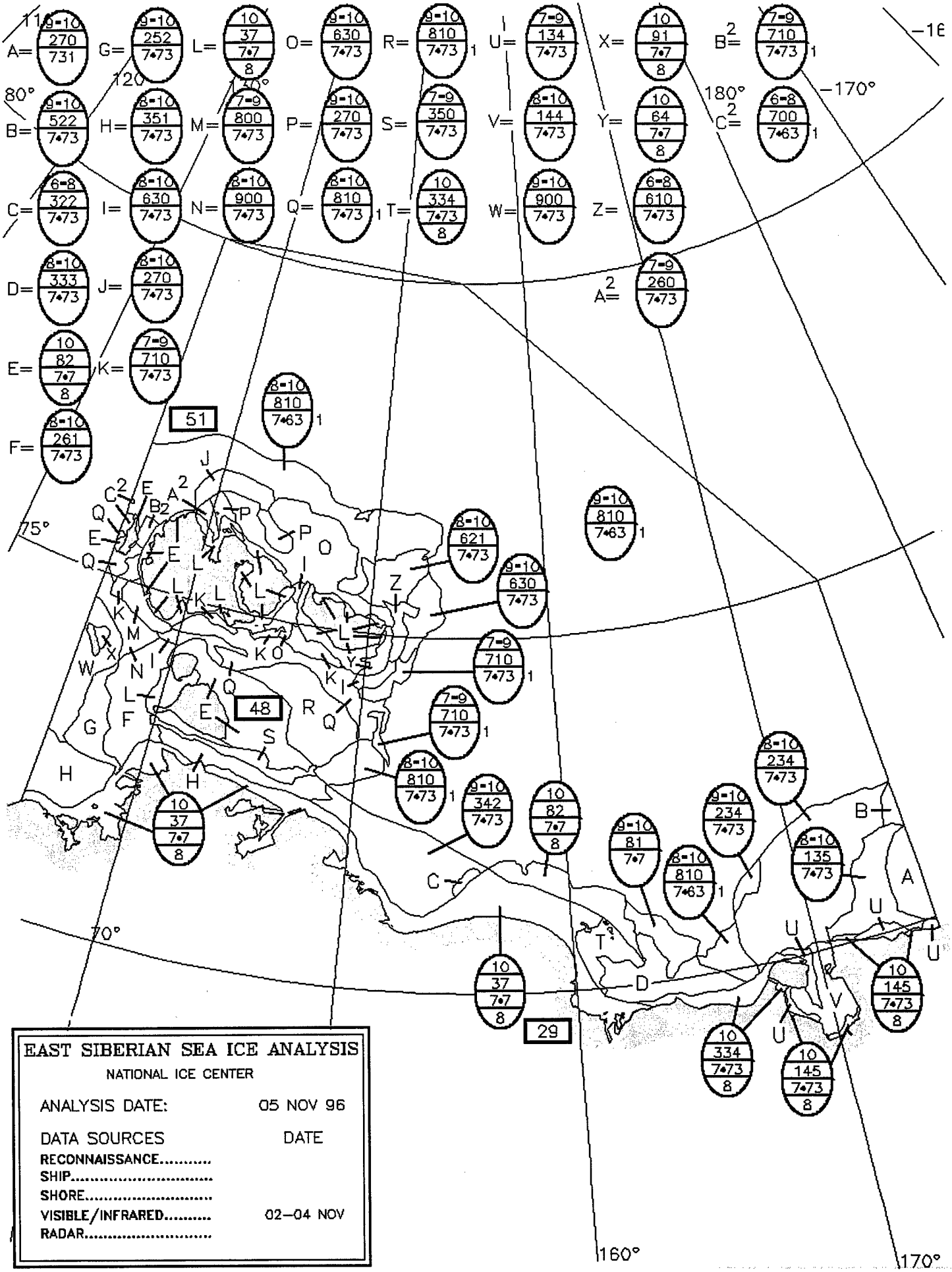


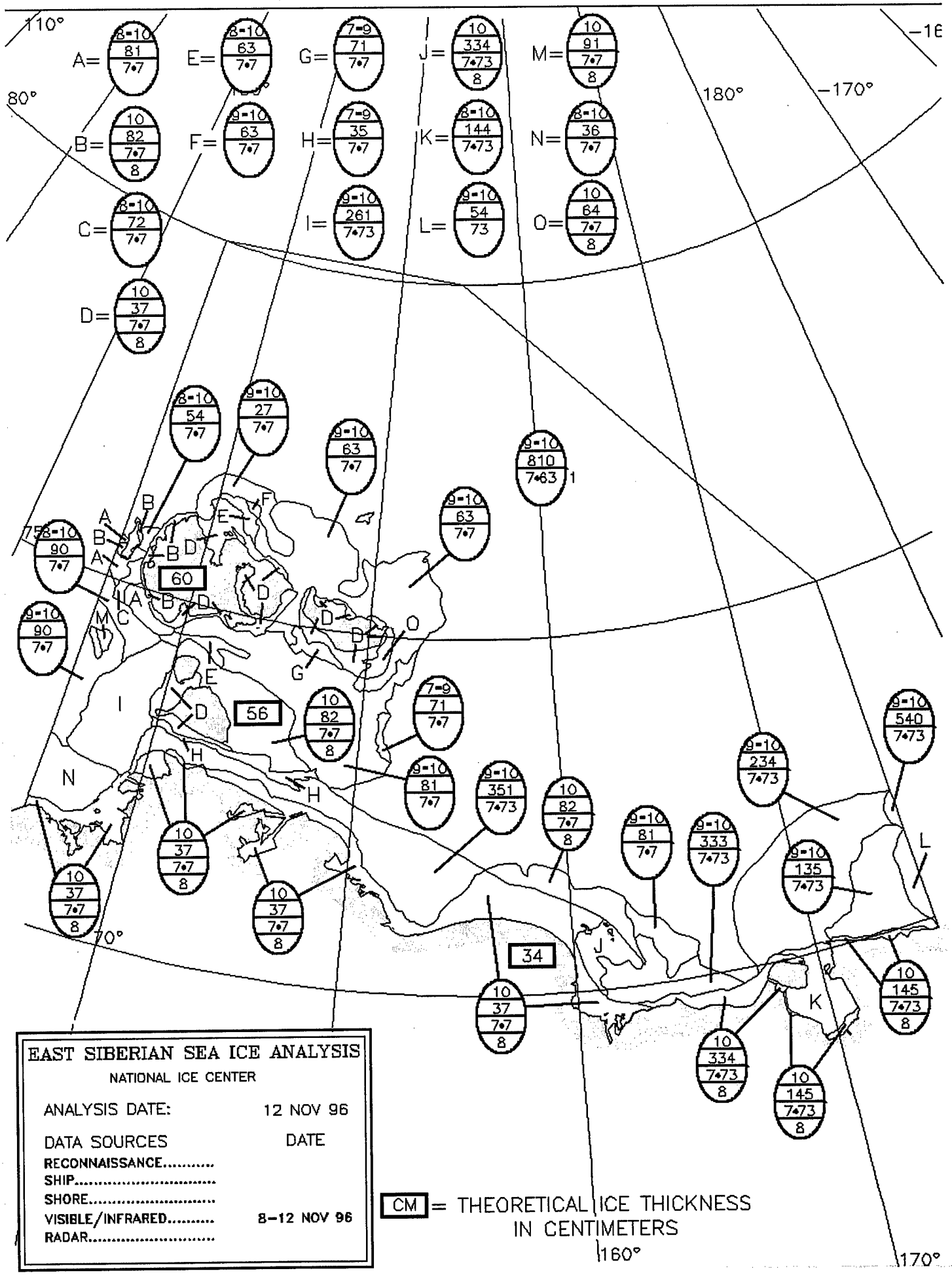
EAST SIBERIAN SEA ICE ANALYSIS

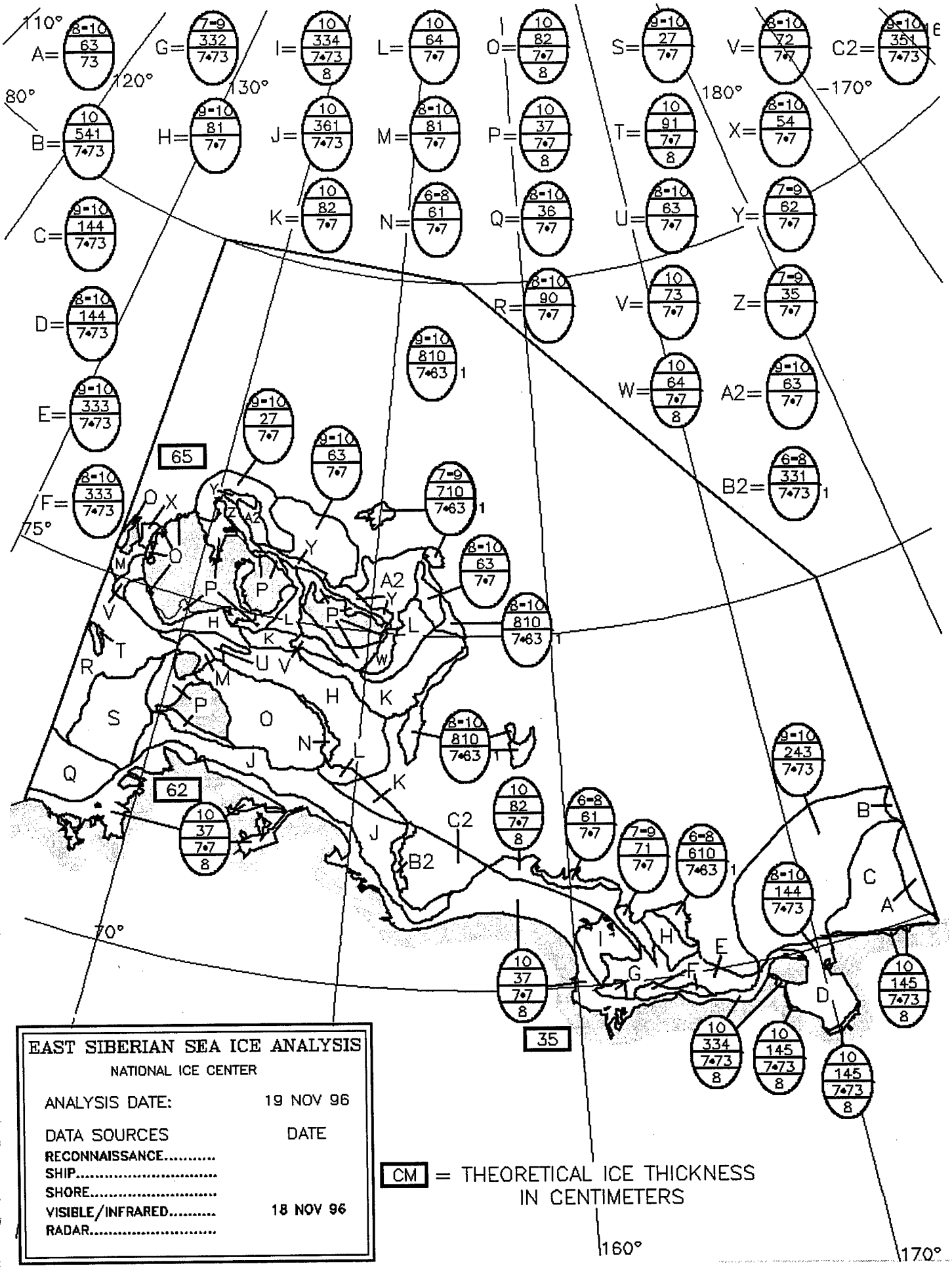
NATIONAL ICE CENTER

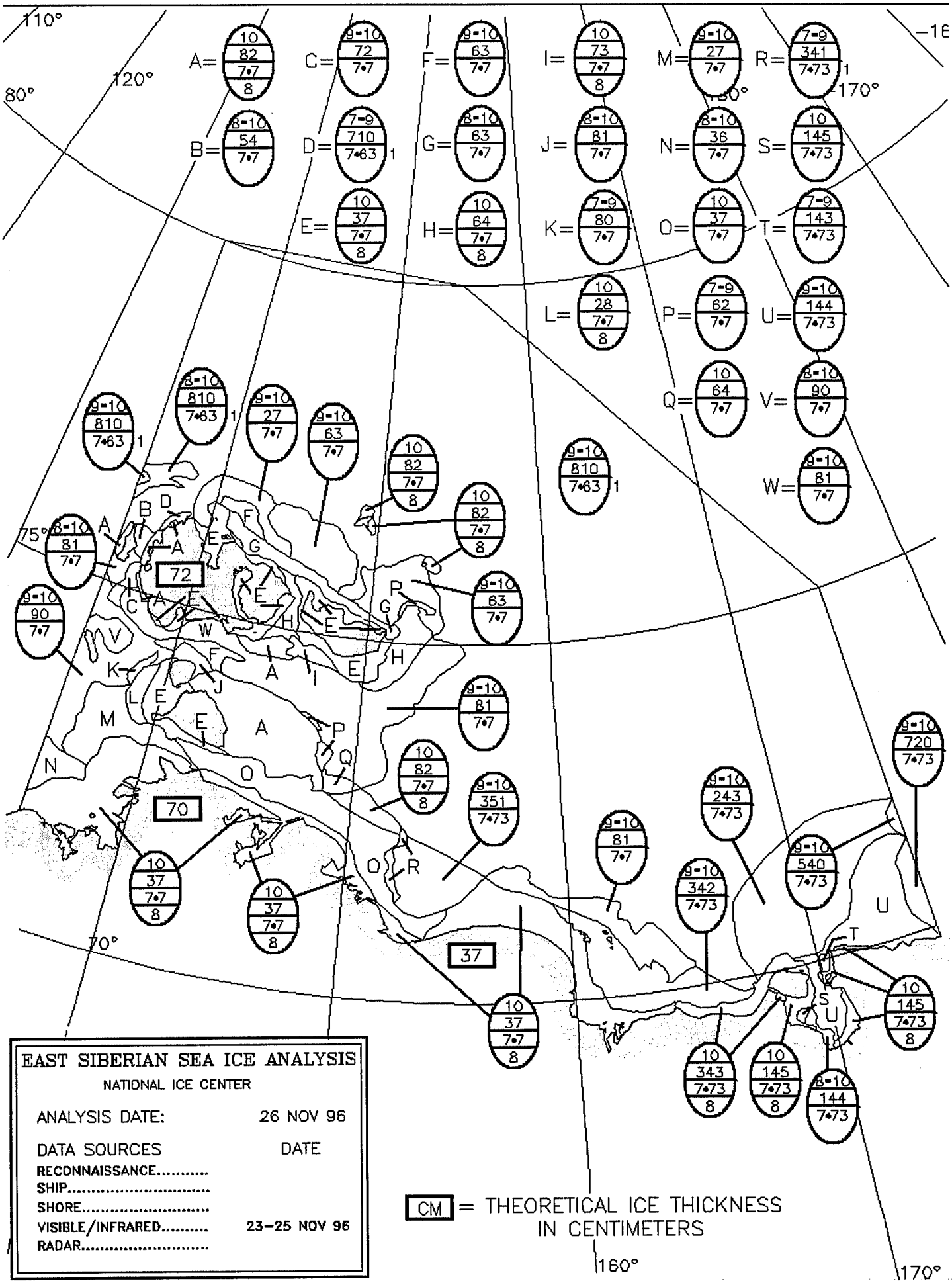
ANALYSIS DATE:	29 OCT 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	25–28 OCT 96
RADAR.....	

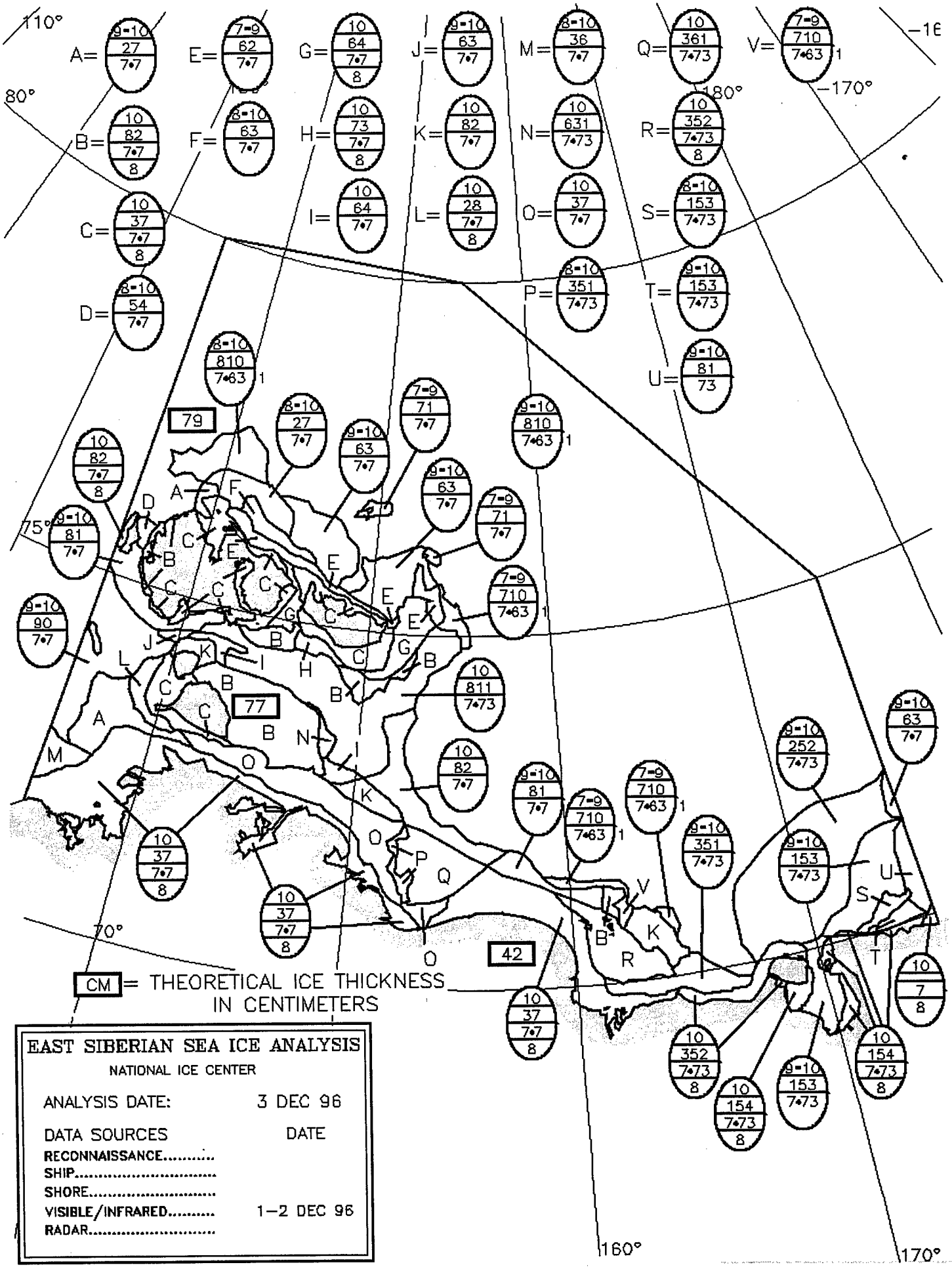
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS

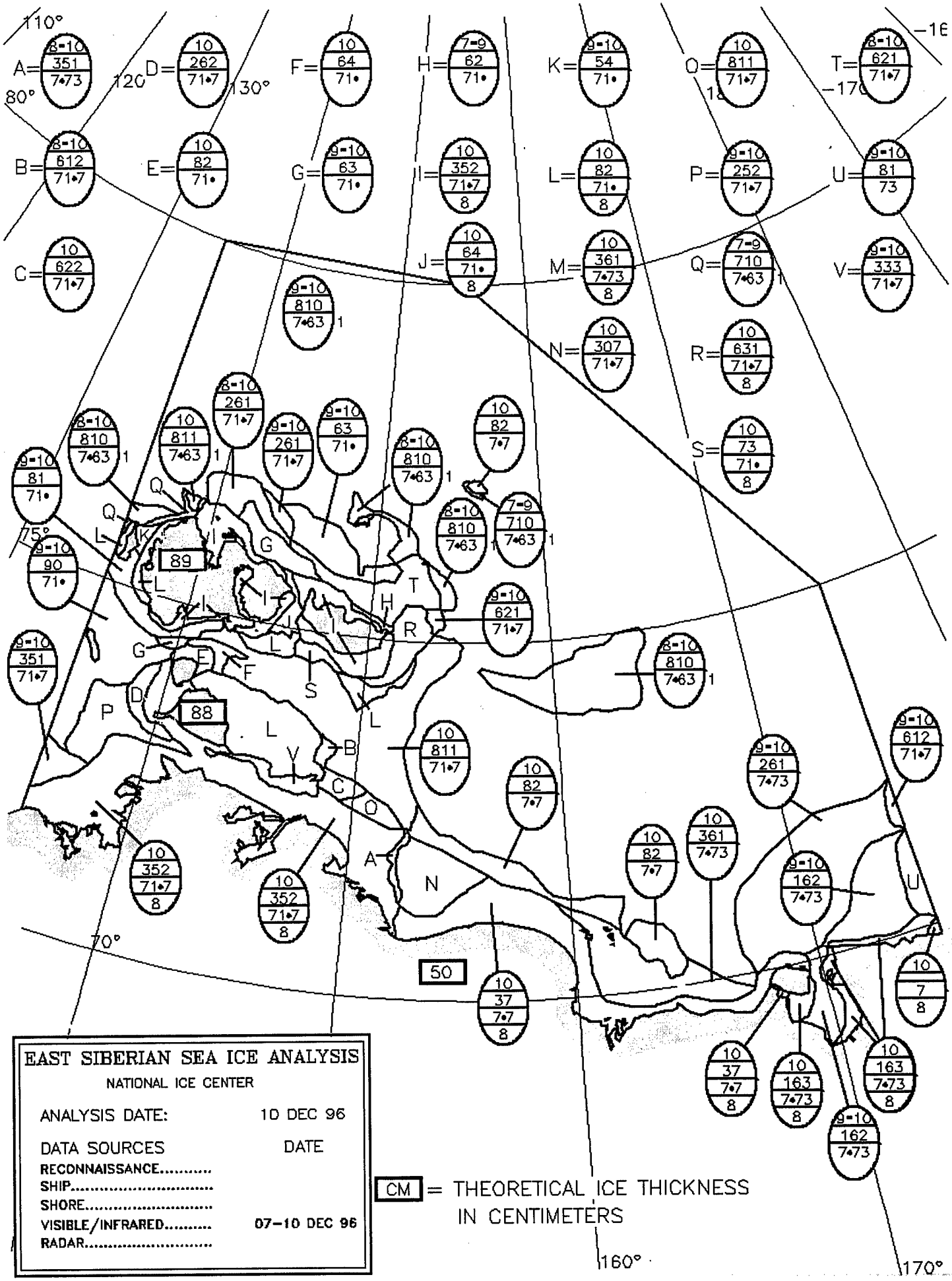

EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 02–04 NOV
RADAR.....
80°
75°
70°
160°
170°
180°
-170°
-16
51
48
29


110°
80°
180°
−170°
160°
170°
70°
A= 8-10 / 81 / 7•7
E= 8-10 / 63 / 7•7
G= 7-9 / 71 / 7•7
J= 10 / 334 / 7•73 / 8
M= 10 / 91 / 7•7 / 8
B= 10 / 82 / 7•7 / 8
F= 9-10 / 63 / 7•7
H= 7-9 / 35 / 7•7
K= 8-10 / 144 / 7•73
N= 8-10 / 36 / 7•7
C= 8-10 / 72 / 7•7
I= 9-10 / 261 / 7•73
L= 9-10 / 54 / 73
O= 10 / 64 / 7•7 / 8
D= 10 / 37 / 7•7 / 8
8-10 / 54 / 7•7
9-10 / 27 / 7•7
9-10 / 63 / 7•7
9-10 / 810 / 7•63
9-10 / 63 / 7•7
8-10 / 90 / 7•7
9-10 / 90 / 7•7
60
56
34
10 / 82 / 7•7 / 8
7-9 / 71 / 7•7
9-10 / 81 / 7•7
9-10 / 351 / 7•73
10 / 82 / 7•7 / 8
9-10 / 81 / 7•7
9-10 / 333 / 7•73
9-10 / 234 / 7•73
9-10 / 540 / 7•73
9-10 / 135 / 7•73
10 / 37 / 7•7 / 8
10 / 37 / 7•7 / 8
10 / 37 / 7•7 / 8
10 / 37 / 7•7 / 8
10 / 334 / 7•73 / 8
10 / 145 / 7•73 / 8
10 / 145 / 7•73 / 8
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 8-12 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS


EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 18 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
110°
120°
130°
180°
170°
80°
75°
70°
160°
170°
65
62
35


EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 23-25 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
110°
120°
80°
75°
70°
160°
170°
72
70
37


110°
80°
75°
70°
160°
170°
180°
-170°
-16
A= 9-10 / 27 / 7•7
B= 10 / 82 / 7•7 / 8
C= 10 / 37 / 7•7 / 8
D= 8-10 / 54 / 7•7
E= 7-9 / 62 / 7•7
F= 8-10 / 63 / 7•7
G= 10 / 64 / 7•7 / 8
H= 10 / 73 / 7•7 / 8
I= 10 / 64 / 7•7
J= 9-10 / 63 / 7•7
K= 10 / 82 / 7•7
L= 10 / 28 / 7•7 / 8
M= 8-10 / 36 / 7•7
N= 10 / 631 / 7•73
O= 10 / 37 / 7•7
P= 8-10 / 351 / 7•73
Q= 10 / 361 / 7•73
R= 10 / 352 / 7•73 / 8
S= 8-10 / 153 / 7•73
T= 9-10 / 153 / 7•73
U= 9-10 / 81 / 73
V= 7-9 / 710 / 7•63 1
79
77
42
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 1–2 DEC 96
RADAR.....

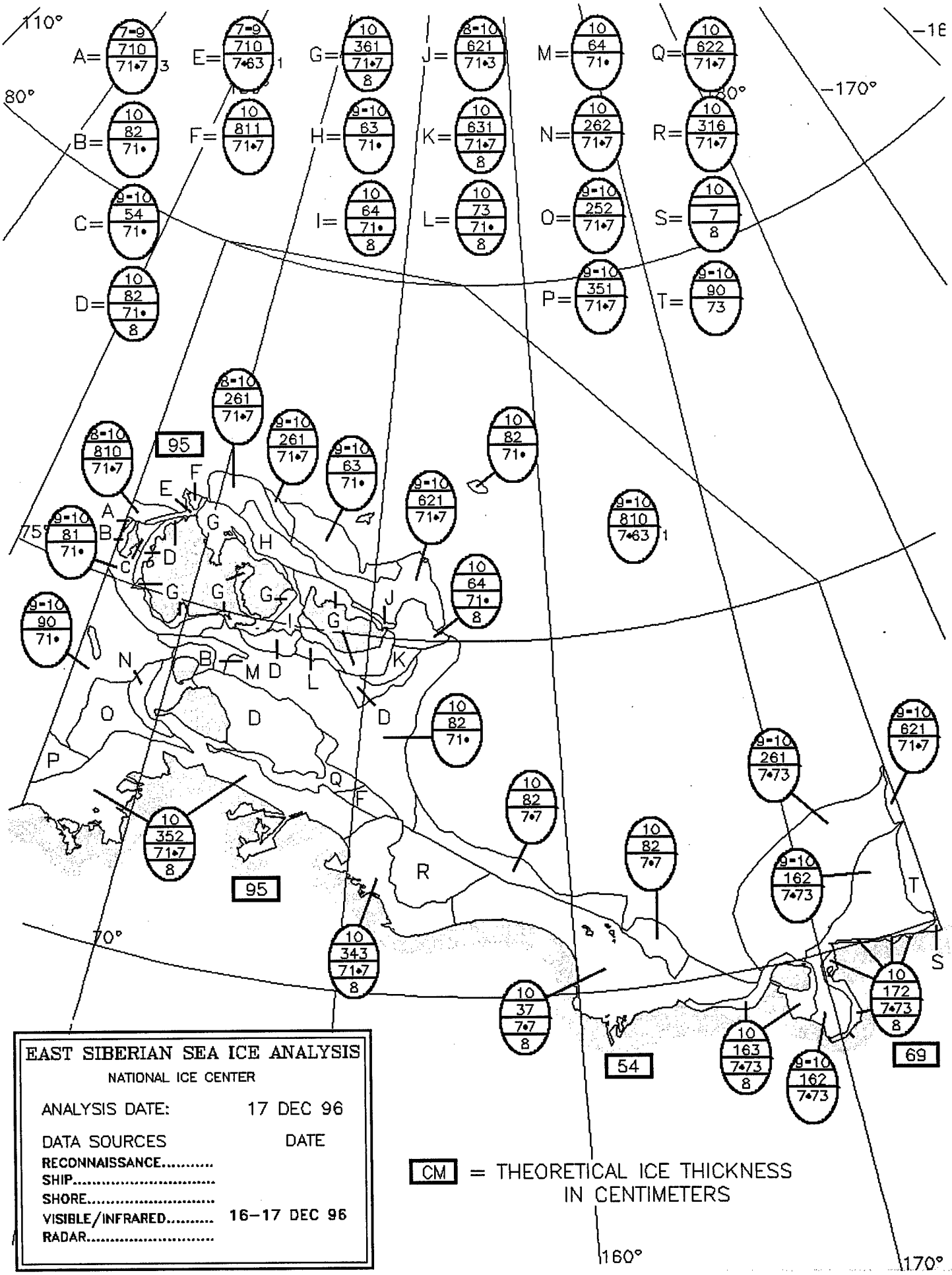


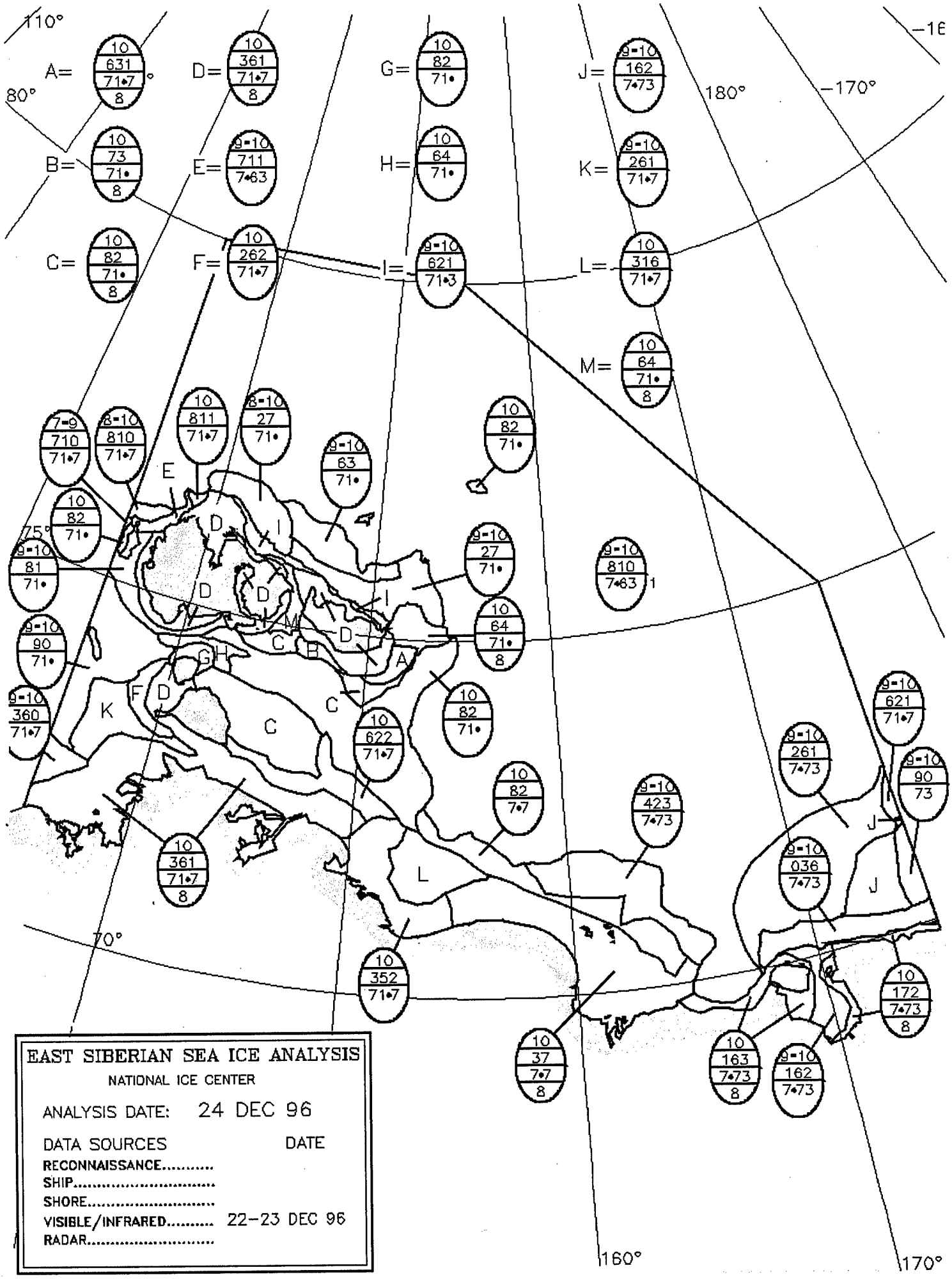
EAST SIBERIAN SEA ICE ANALYSIS

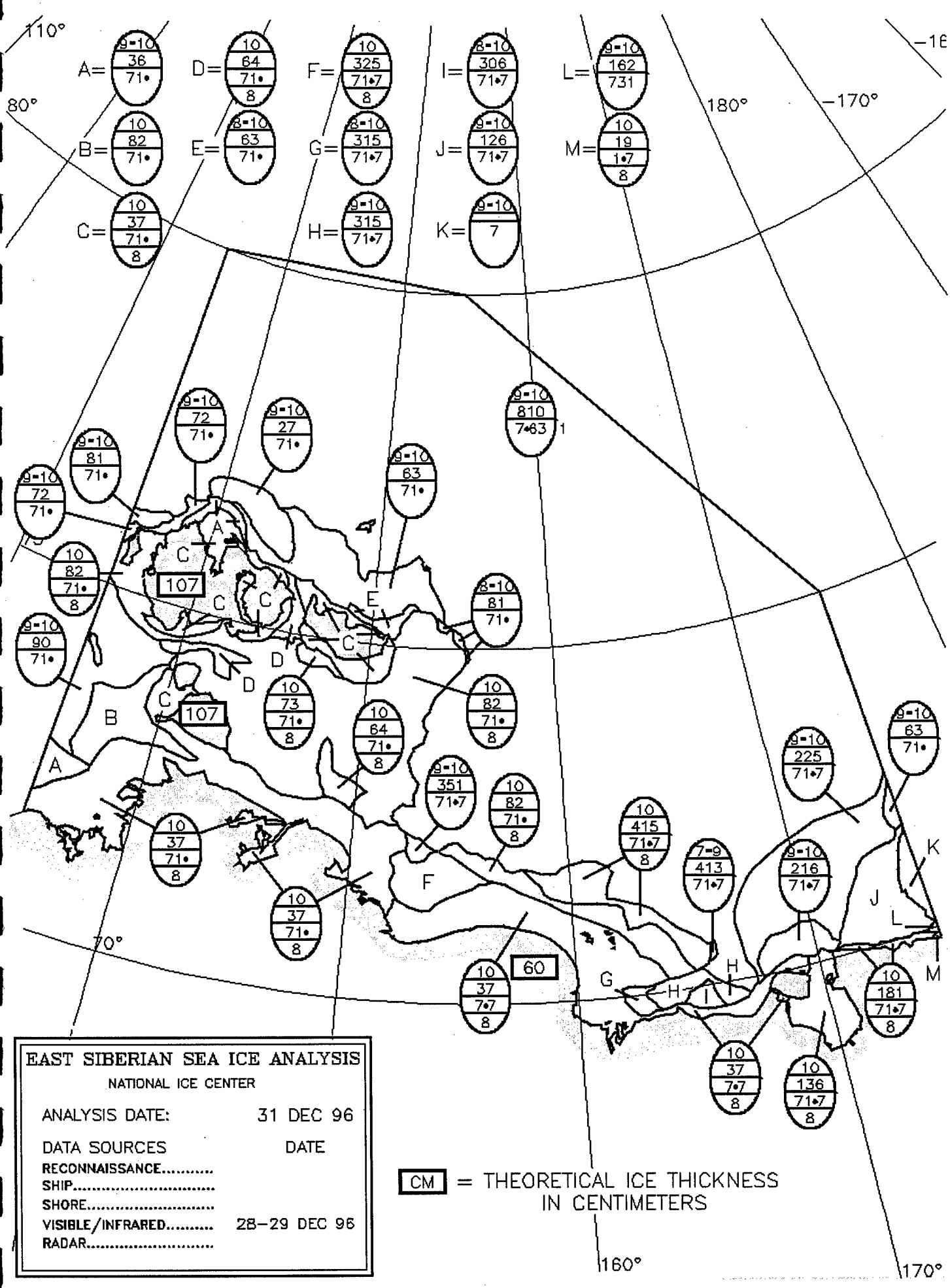
NATIONAL ICE CENTER

ANALYSIS DATE: 10 DEC 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	07–10 DEC 96
RADAR.....	


110°
80°
75°
70°
160°
170°
-170°
A= 7-9 / 710 / 71•7 3
B= 10 / 82 / 71•
C= 9-10 / 54 / 71•
D= 10 / 82 / 71• / 8
E= 7-9 / 710 / 7•63 1
F= 10 / 811 / 71•7
G= 10 / 361 / 71•7 / 8
H= 9-10 / 63 / 71•
I= 10 / 64 / 71• / 8
J= 8-10 / 621 / 71•3
K= 10 / 631 / 71•7 / 8
L= 10 / 73 / 71• / 8
M= 10 / 64 / 71•
N= 10 / 262 / 71•7
O= 9-10 / 252 / 71•7
P= 9-10 / 351 / 71•7
Q= 10 / 622 / 71•7
R= 10 / 316 / 71•7
S= 10 / 7 / 8
T= 9-10 / 90 / 73
8-10 / 261 / 71•7
8-10 / 810 / 71•7
95
9-10 / 261 / 71•7
9-10 / 63 / 71•
10 / 82 / 71•
9-10 / 621 / 71•7
9-10 / 810 / 7•63 1
9-10 / 81 / 71•
10 / 64 / 71• / 8
9-10 / 90 / 71•
10 / 82 / 71•
9-10 / 621 / 71•7
9-10 / 261 / 7•73
10 / 82 / 7•7
10 / 352 / 71•7 / 8
95
10 / 82 / 7•7
9-10 / 162 / 7•73
10 / 343 / 71•7 / 8
10 / 37 / 7•7 / 8
10 / 172 / 7•73 / 8
10 / 163 / 7•73 / 8
9-10 / 162 / 7•73
54
69
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16-17 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS


110°
80°
75°
70°
180°
-170°
160°
170°
A= 10 631 71•7 8
B= 10 73 71• 8
C= 10 82 71• 8
D= 10 361 71•7 8
E= 9-10 711 7•63
F= 10 262 71•7
G= 10 82 71•
H= 10 64 71•
I= 9-10 621 71•3
J= 9-10 162 7•73
K= 9-10 261 71•7
L= 10 316 71•7
M= 10 64 71• 8
7-9 710 71•7
8-10 810 71•7
10 811 71•7
8-10 27 71•
9-10 63 71•
10 82 71•
10 82 71•
9-10 81 71•
9-10 27 71•
9-10 810 7•63
10 64 71• 8
9-10 90 71•
9-10 360 71•7
10 82 71•
10 622 71•7
10 361 71•7 8
10 82 7•7
9-10 423 7•73
9-10 621 71•7
9-10 261 7•73
9-10 90 73
9-10 036 7•73
10 352 71•7
10 172 7•73 8
10 37 7•7 8
10 163 7•73 8
9-10 162 7•73
EAST SIBERIAN SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22-23 DEC 96
RADAR.....

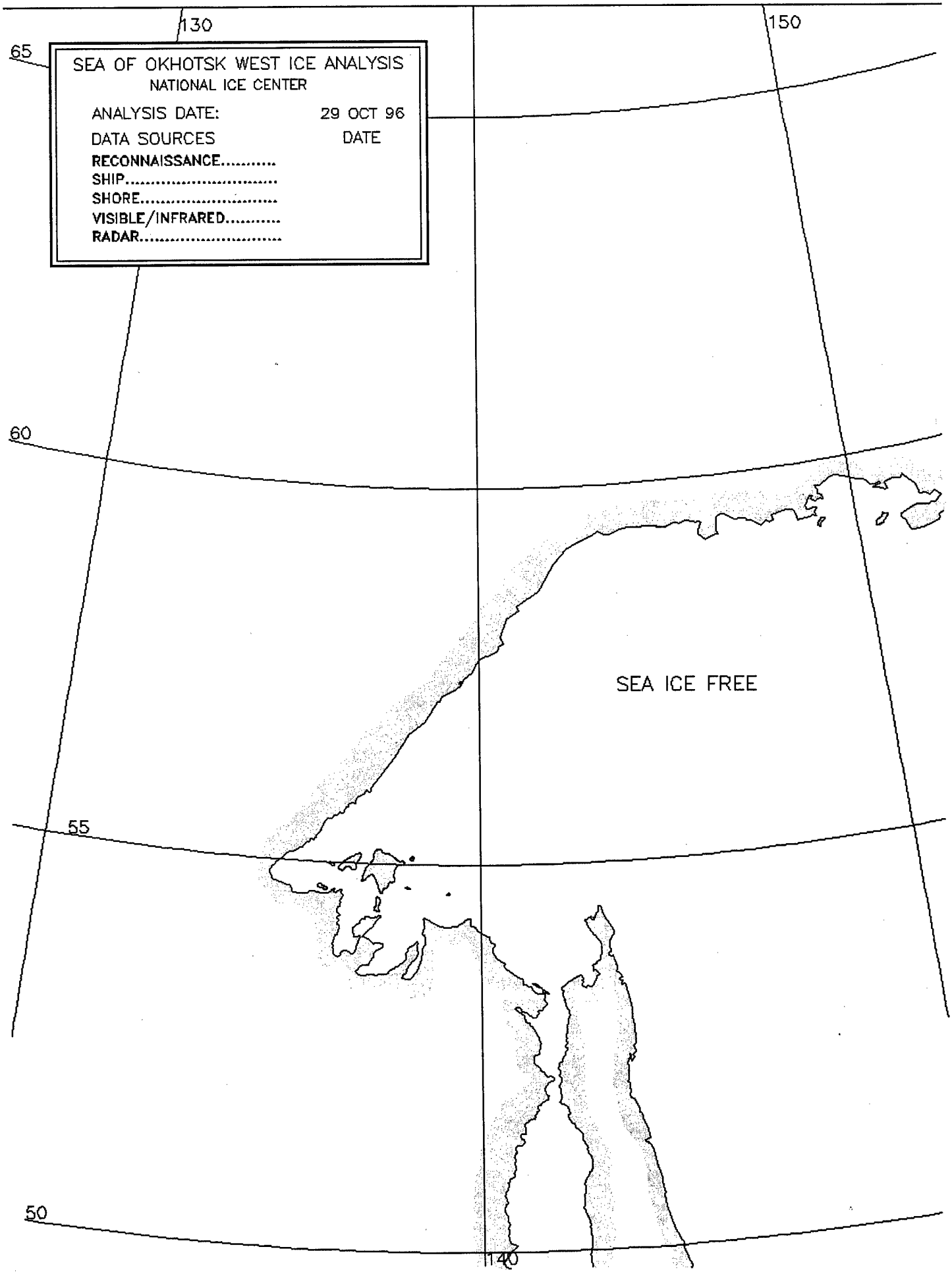


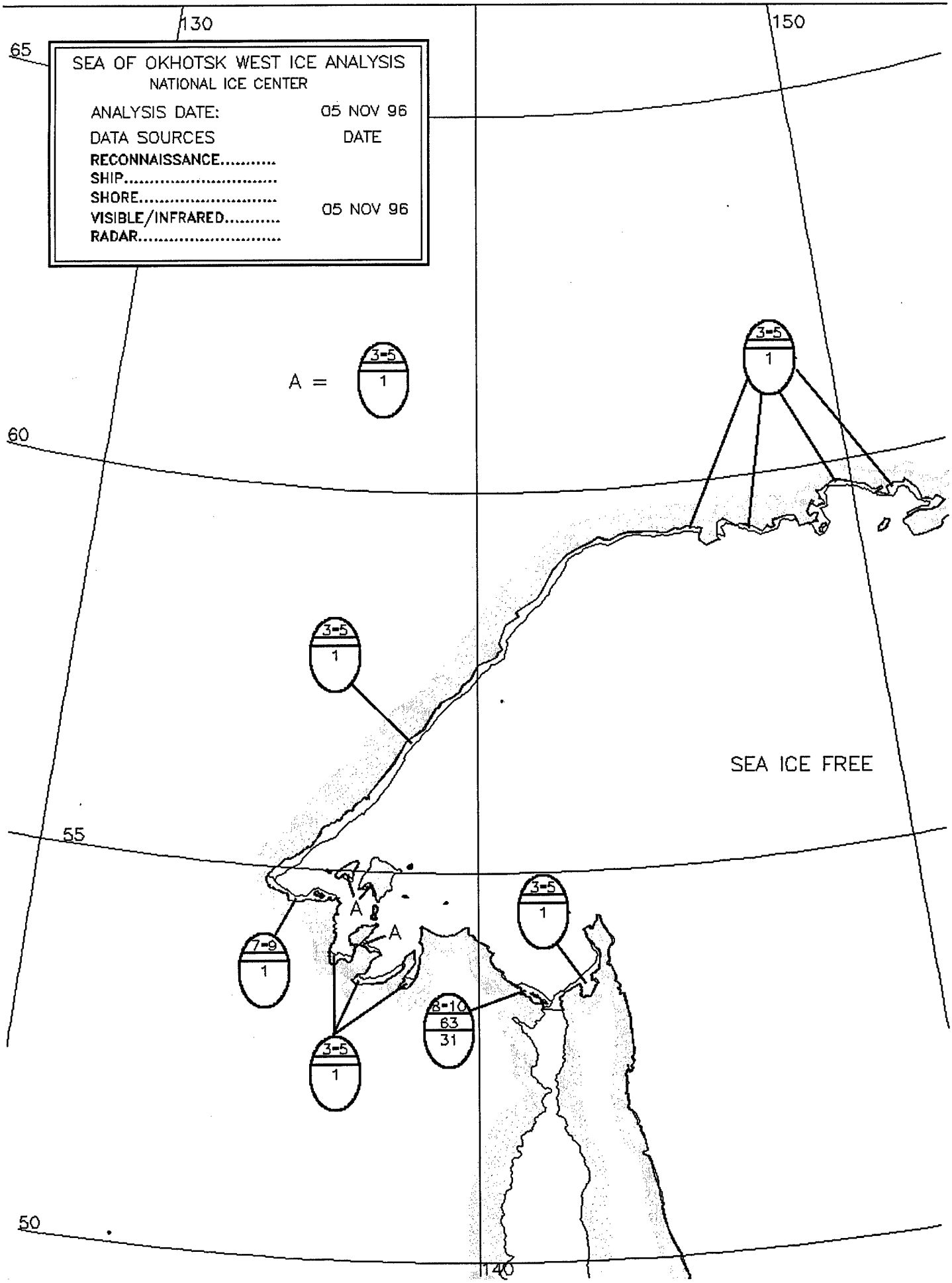
EAST SIBERIAN SEA ICE ANALYSIS

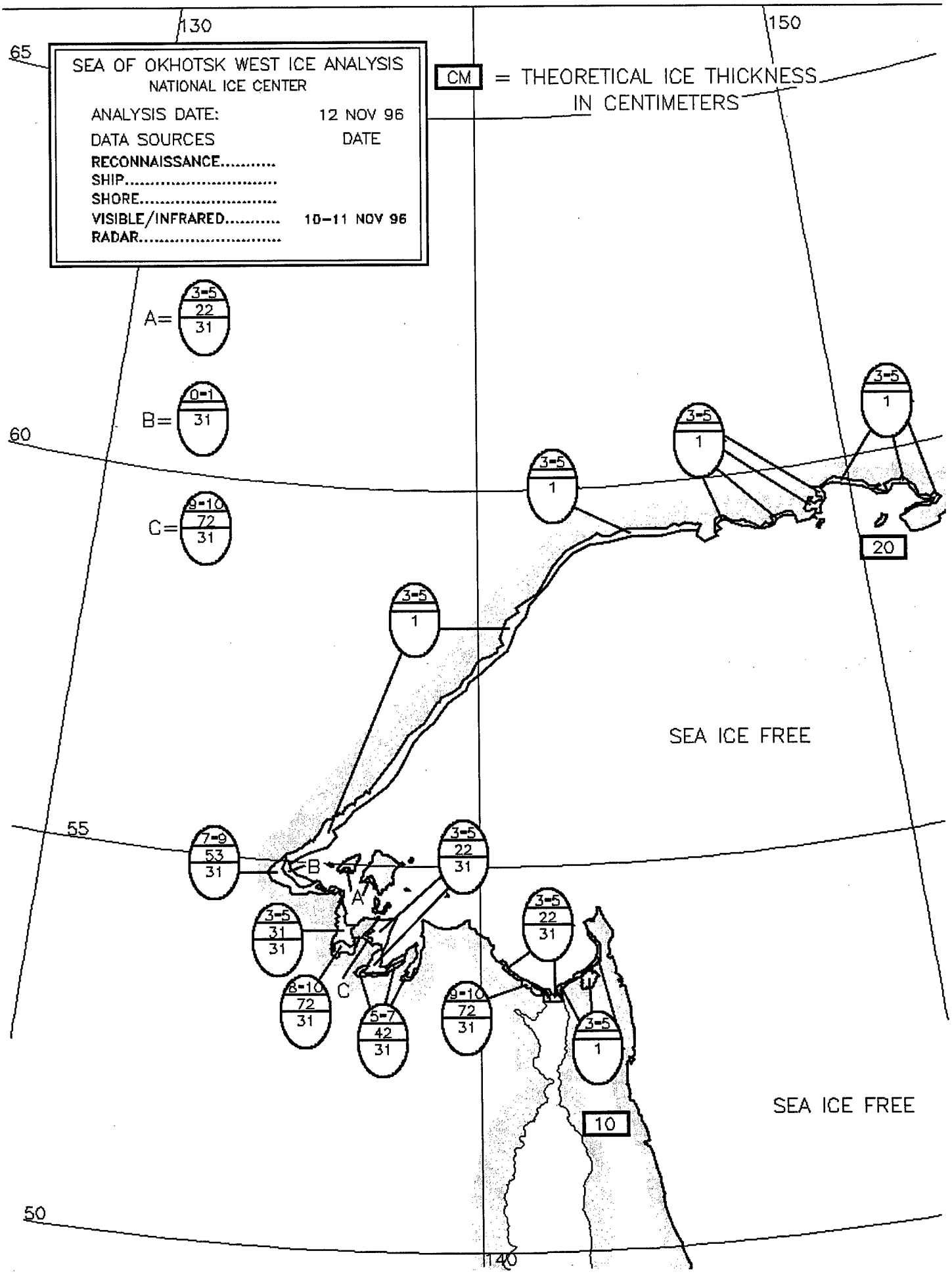
NATIONAL ICE CENTER

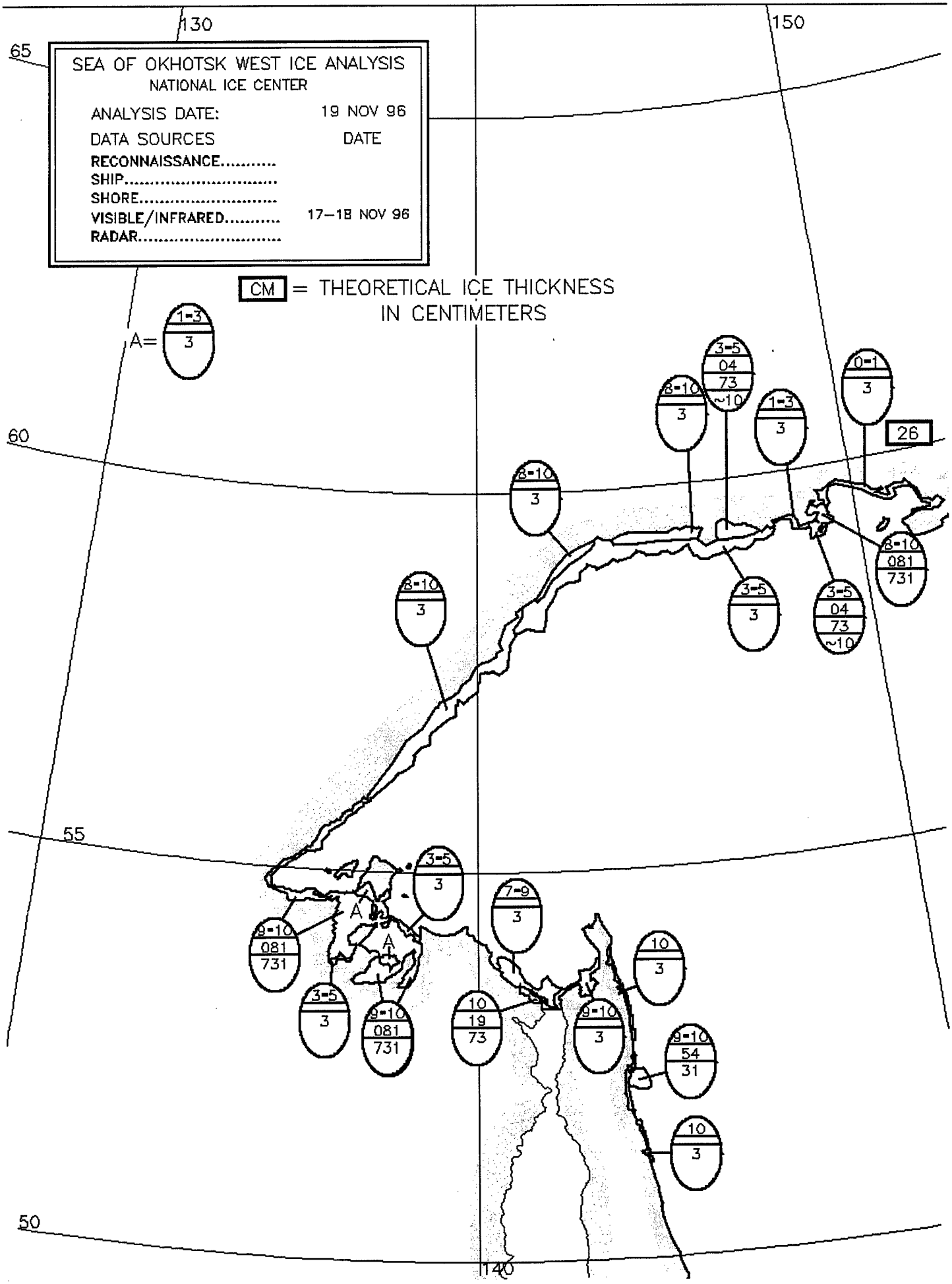
ANALYSIS DATE:	31 DEC 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	28–29 DEC 96
RADAR.....	

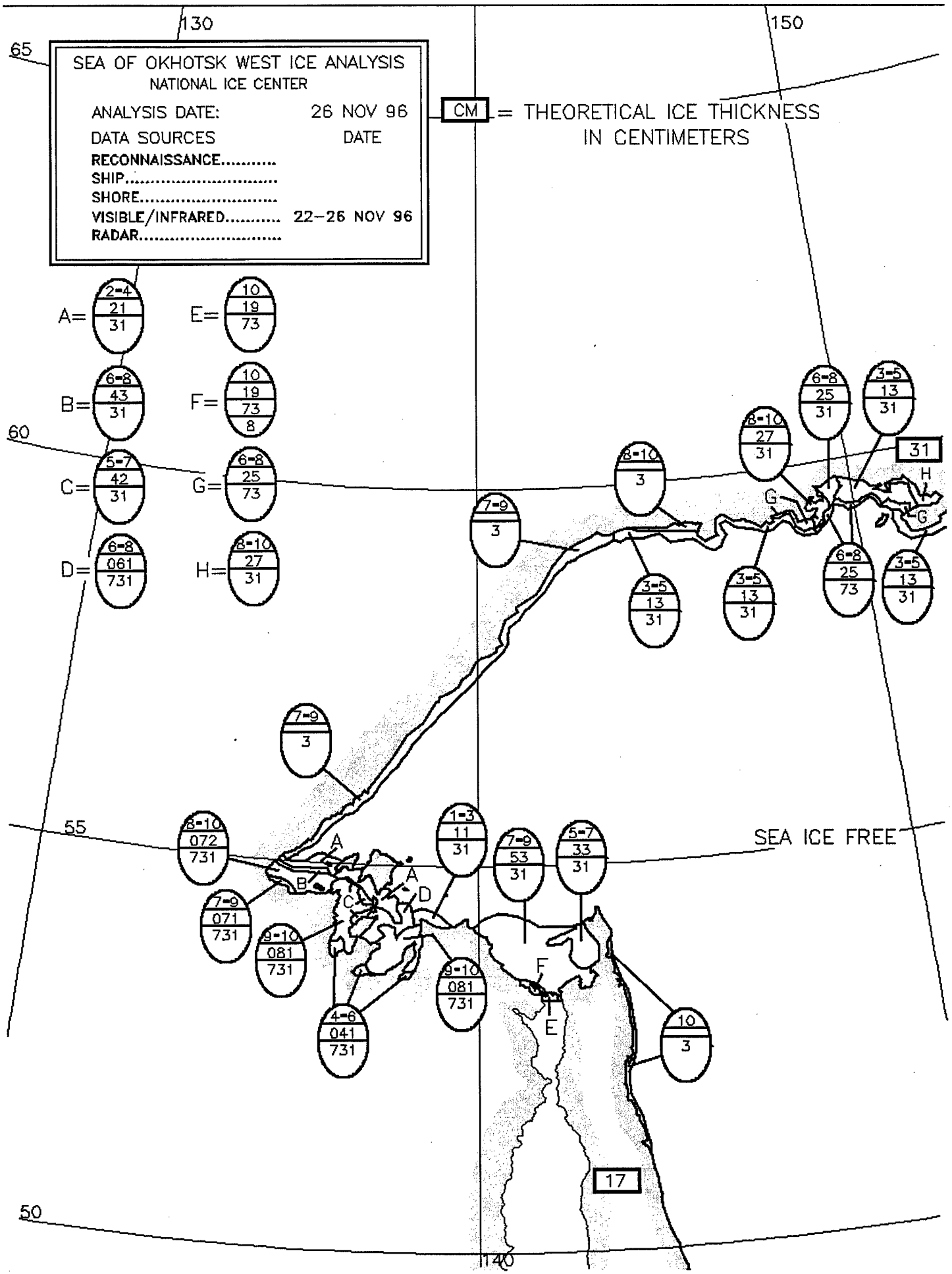
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS

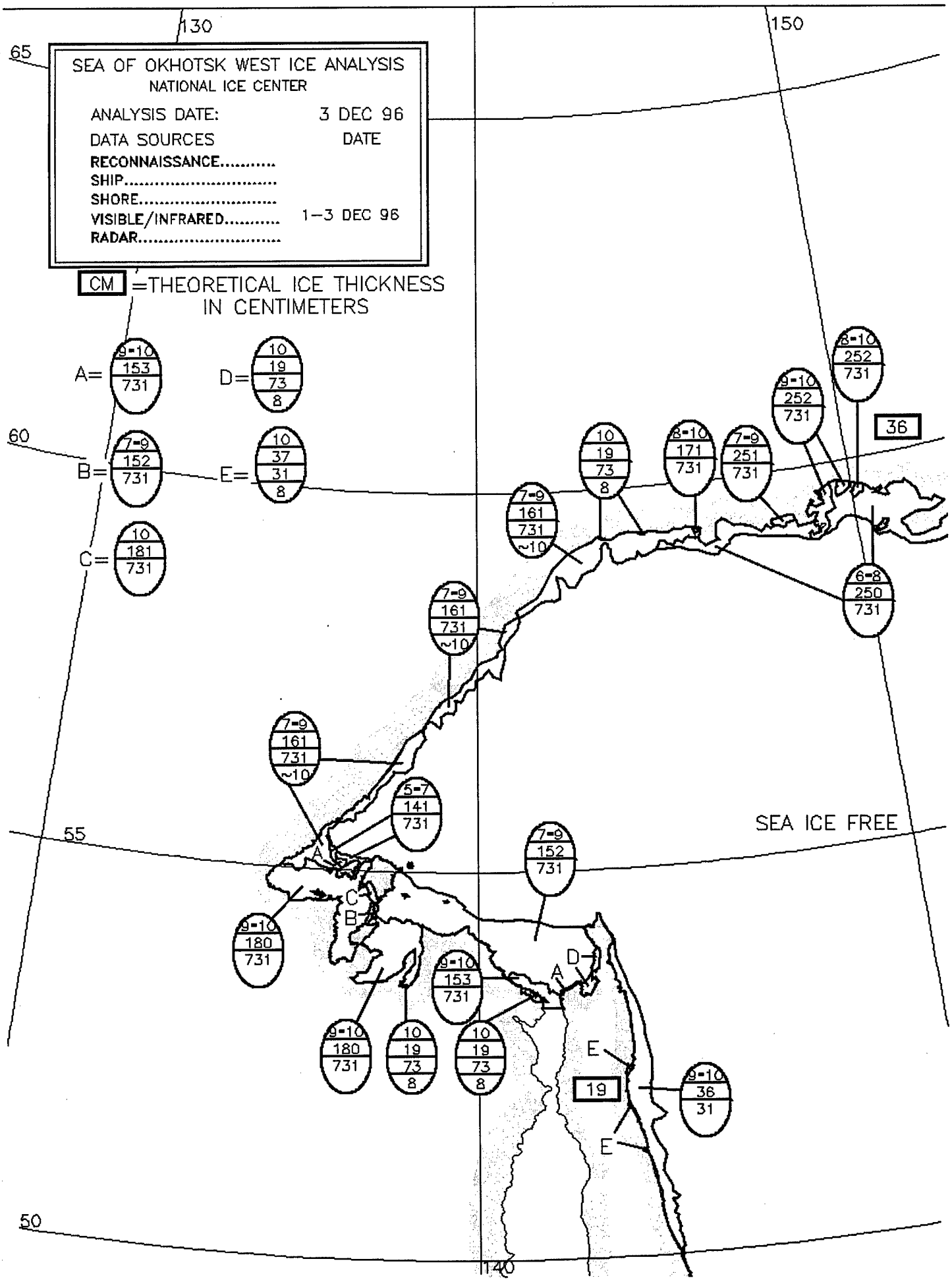

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
130
150
65
60
55
50
140
SEA ICE FREE

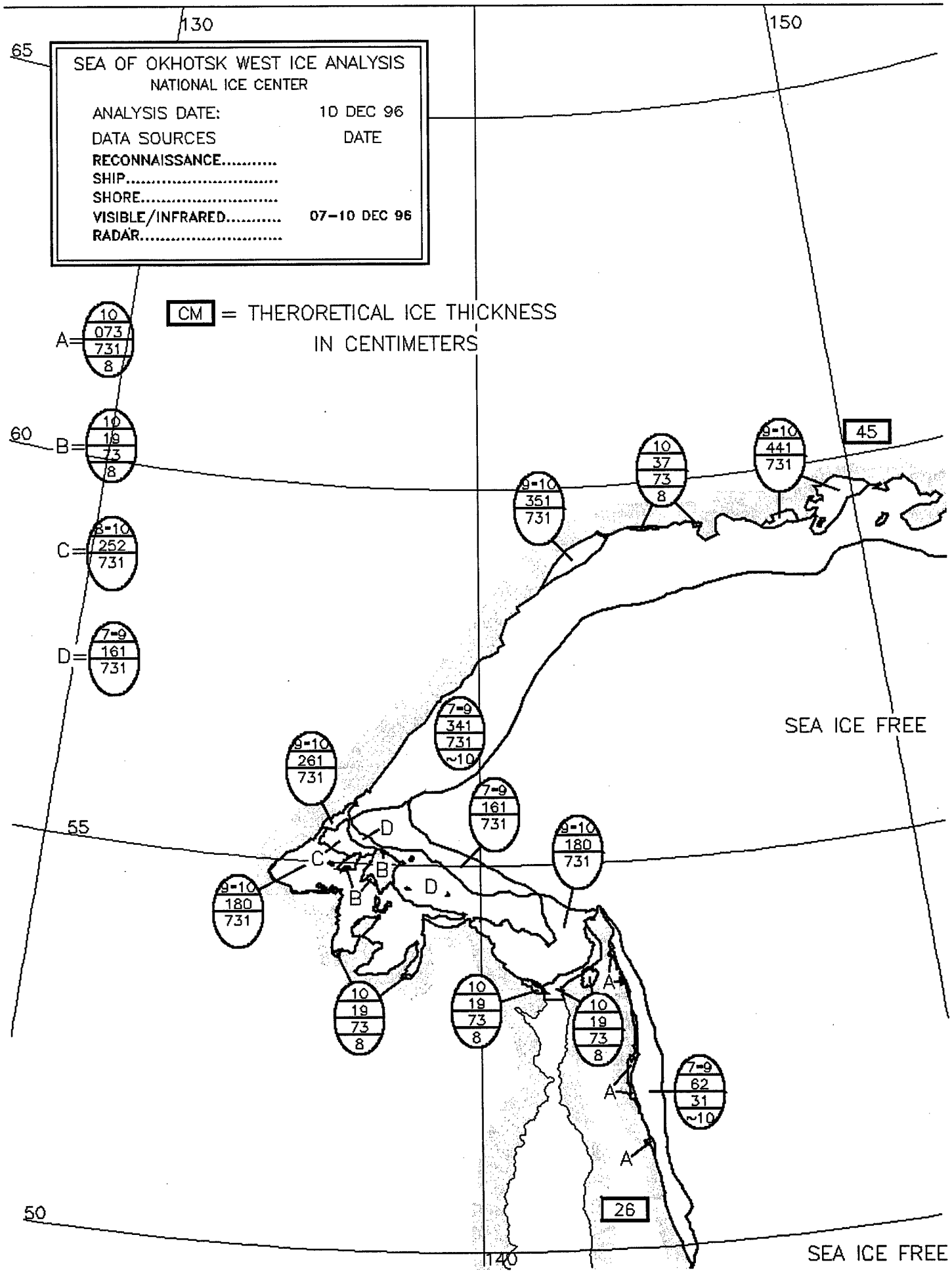

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 05 NOV 96
RADAR.....
130
150
65
60
55
50
140
A =
3-5
1
7-9
1
8-10
63
31
A
SEA ICE FREE

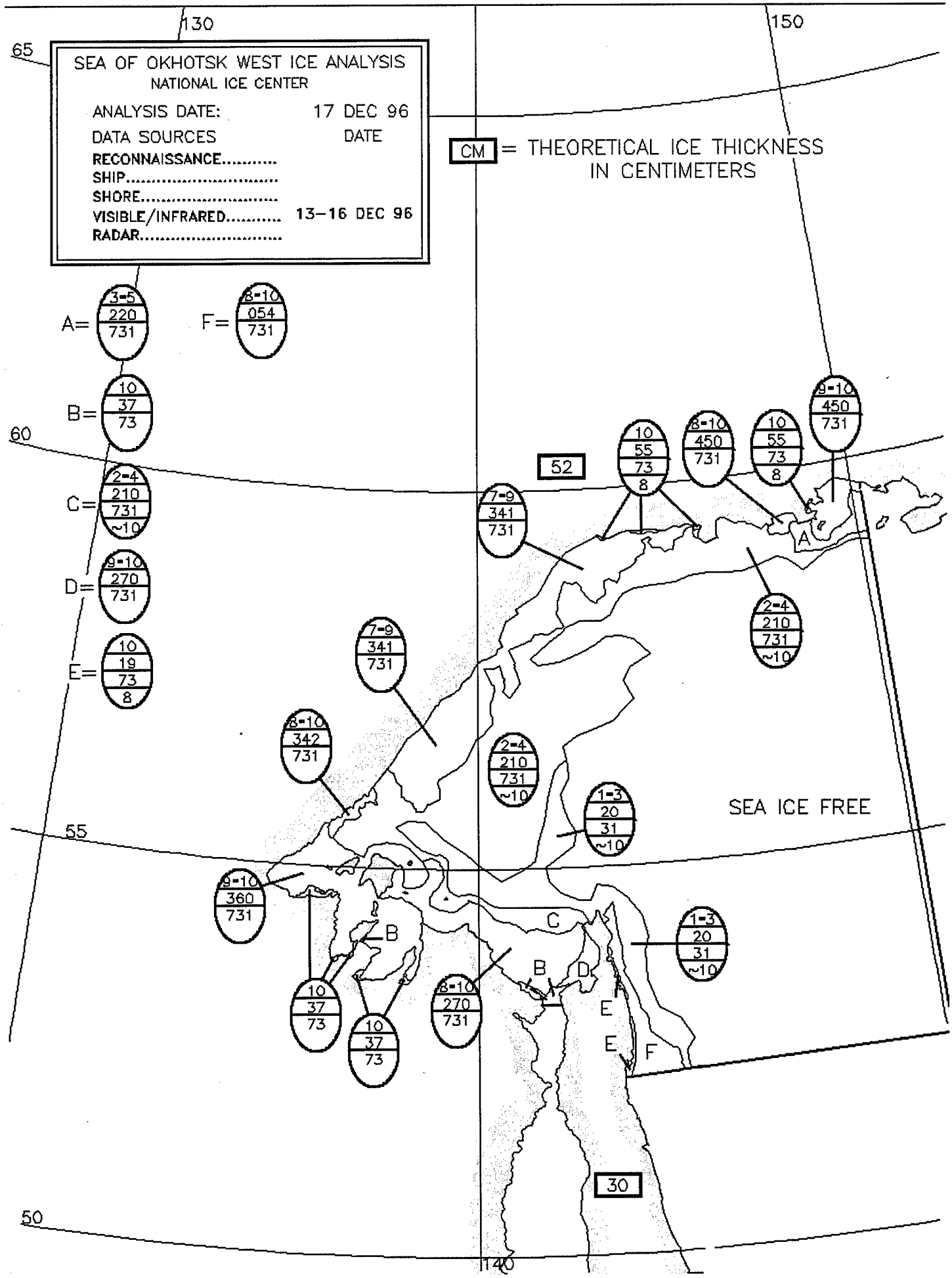

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 10-11 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
130
150
65
60
55
50
140
A= 3-5 / 22 / 31
B= 0-1 / 31
C= 9-10 / 72 / 31
3-5 / 1
20
10
7-9 / 53 / 31
3-5 / 22 / 31
3-5 / 31 / 31
8-10 / 72 / 31
5-7 / 42 / 31
9-10 / 72 / 31
A
B
C
SEA ICE FREE
SEA ICE FREE

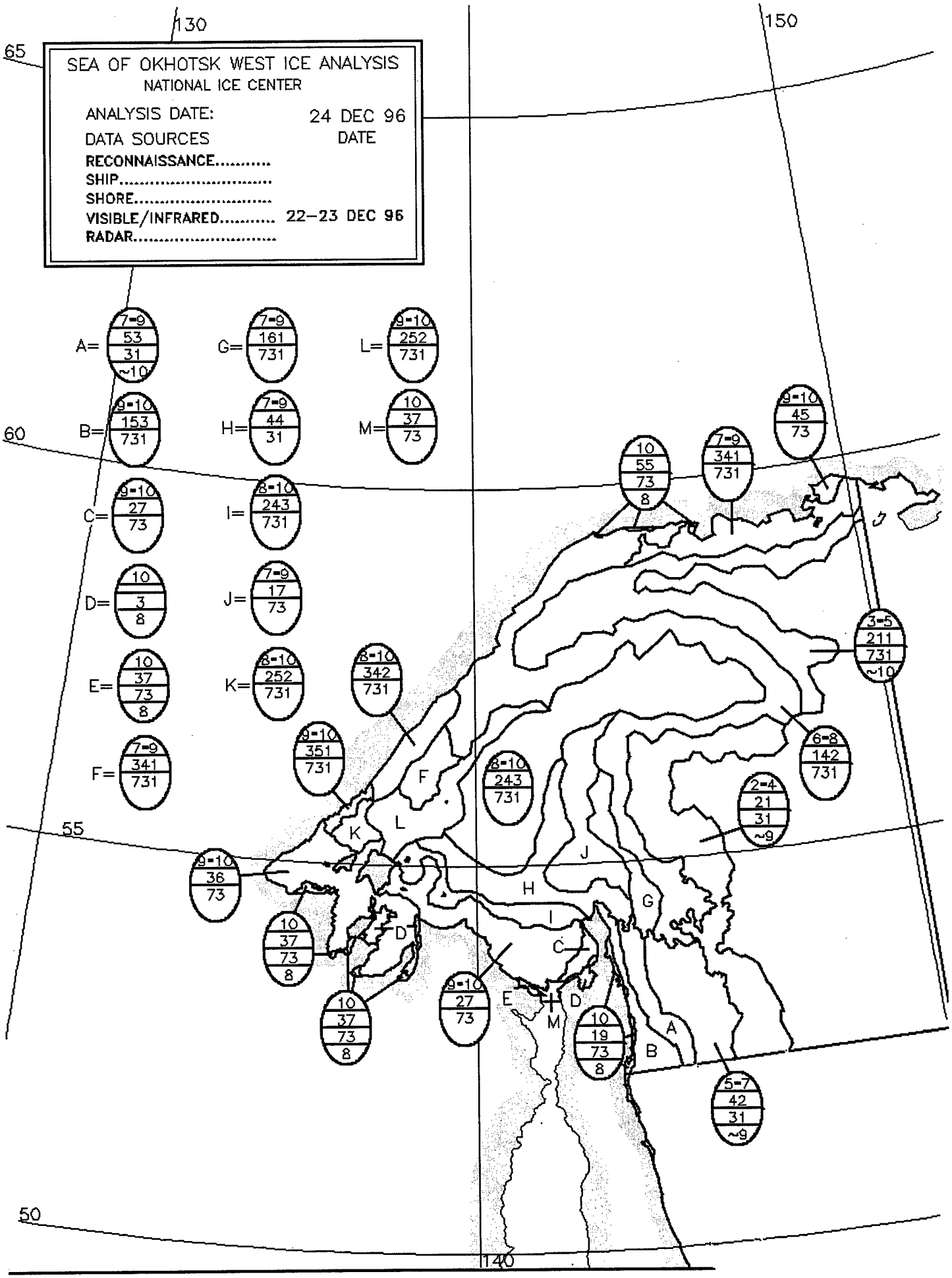

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17–18 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 1-3 / 3
130
150
65
60
55
50
140
26
8-10 / 3
3-5 / 04 / 73 / ~10
1-3 / 3
0-1 / 3
8-10 / 081 / 731
3-5 / 3
3-5 / 04 / 73 / ~10
7-9 / 3
9-10 / 081 / 731
10 / 19 / 73
10 / 3
9-10 / 54 / 31
A

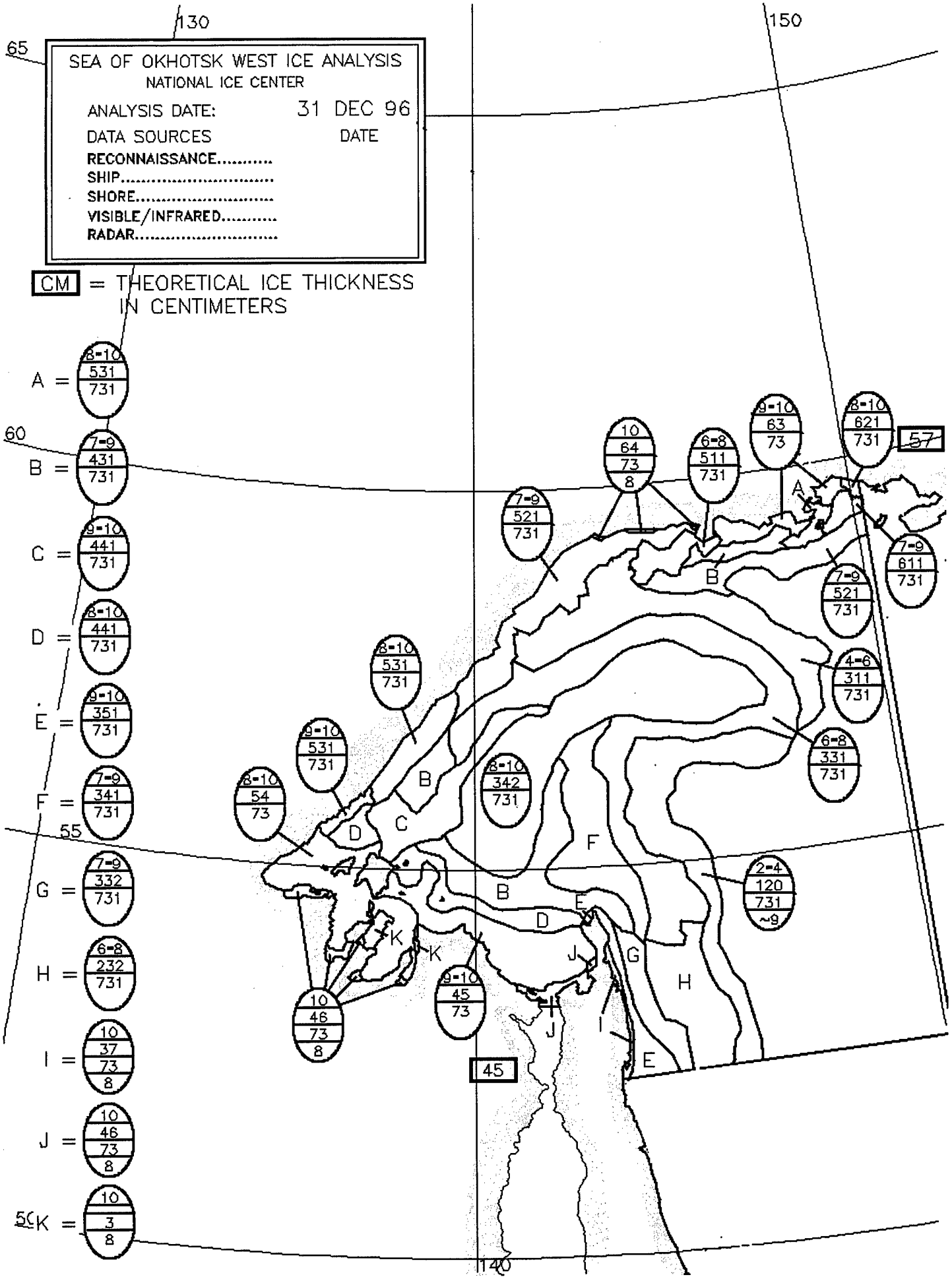

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22-26 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
130
150
65
60
55
50
140
SEA ICE FREE
31
17
A= 2-4 / 21 / 31
B= 6-8 / 43 / 31
C= 5-7 / 42 / 31
D= 6-8 / 061 / 731
E= 10 / 19 / 73
F= 10 / 19 / 73 / 8
G= 6-8 / 25 / 73
H= 8-10 / 27 / 31
8-10 / 3
7-9 / 3
6-8 / 25 / 31
3-5 / 13 / 31
8-10 / 27 / 31
3-5 / 13 / 31
3-5 / 13 / 31
6-8 / 25 / 73
3-5 / 13 / 31
7-9 / 3
8-10 / 072 / 731
7-9 / 071 / 731
9-10 / 081 / 731
4-6 / 041 / 731
9-10 / 081 / 731
1-3 / 11 / 31
7-9 / 53 / 31
5-7 / 33 / 31
10 / 3
A
B
C
D
E
F
G
H

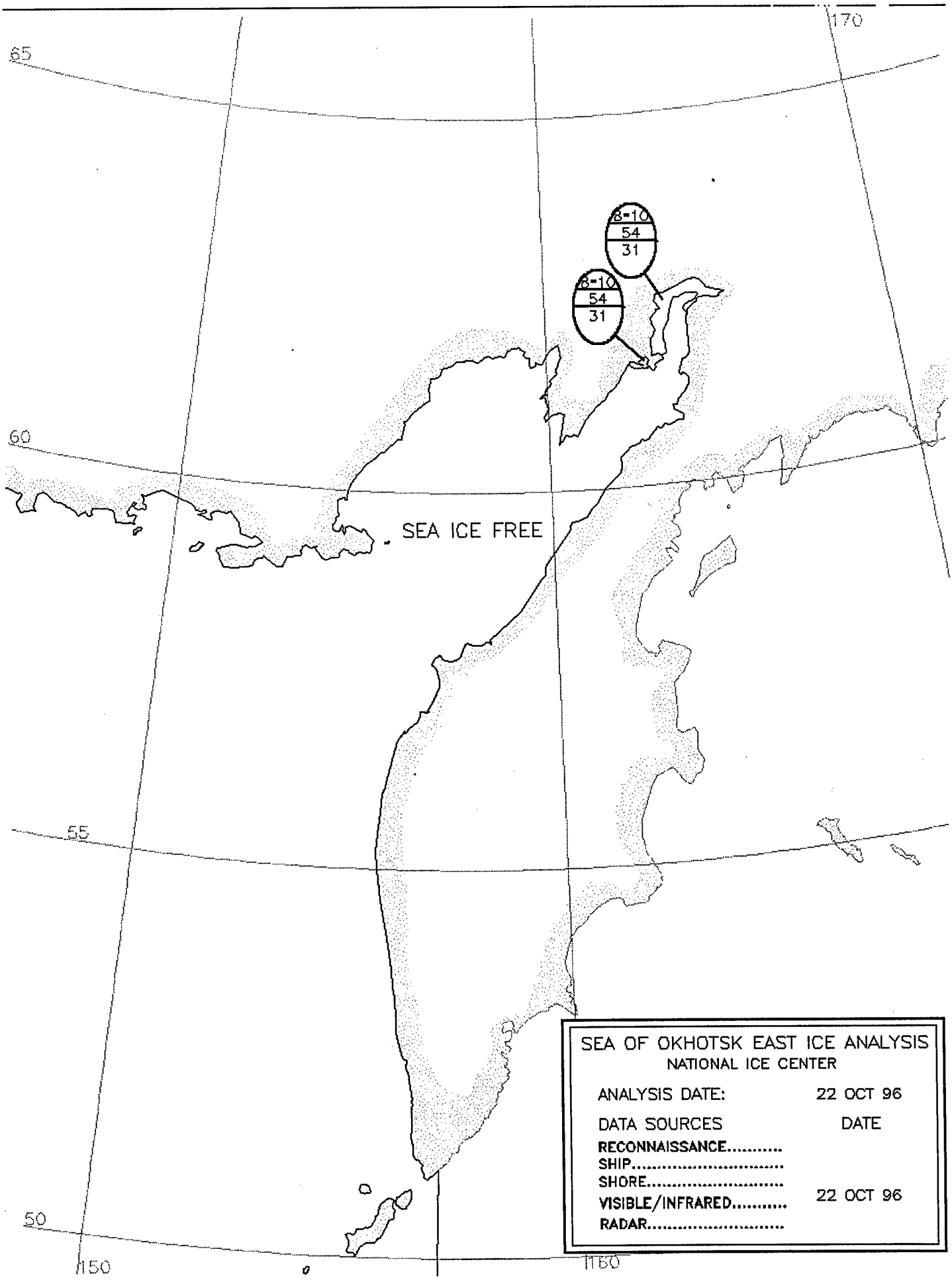

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 1-3 DEC 96
RADAR.....
CM =THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 / 153 / 731
B= 7-9 / 152 / 731
C= 10 / 181 / 731
D= 10 / 19 / 73 / 8
E= 10 / 37 / 31 / 8
130
150
65
60
55
50
140
SEA ICE FREE
36
19
8-10 / 252 / 731
9-10 / 252 / 731
10 / 19 / 73 / 8
8-10 / 171 / 731
7-9 / 251 / 731
7-9 / 161 / 731 / ~10
6-8 / 250 / 731
5-7 / 141 / 731
7-9 / 152 / 731
9-10 / 180 / 731
9-10 / 153 / 731
9-10 / 36 / 31

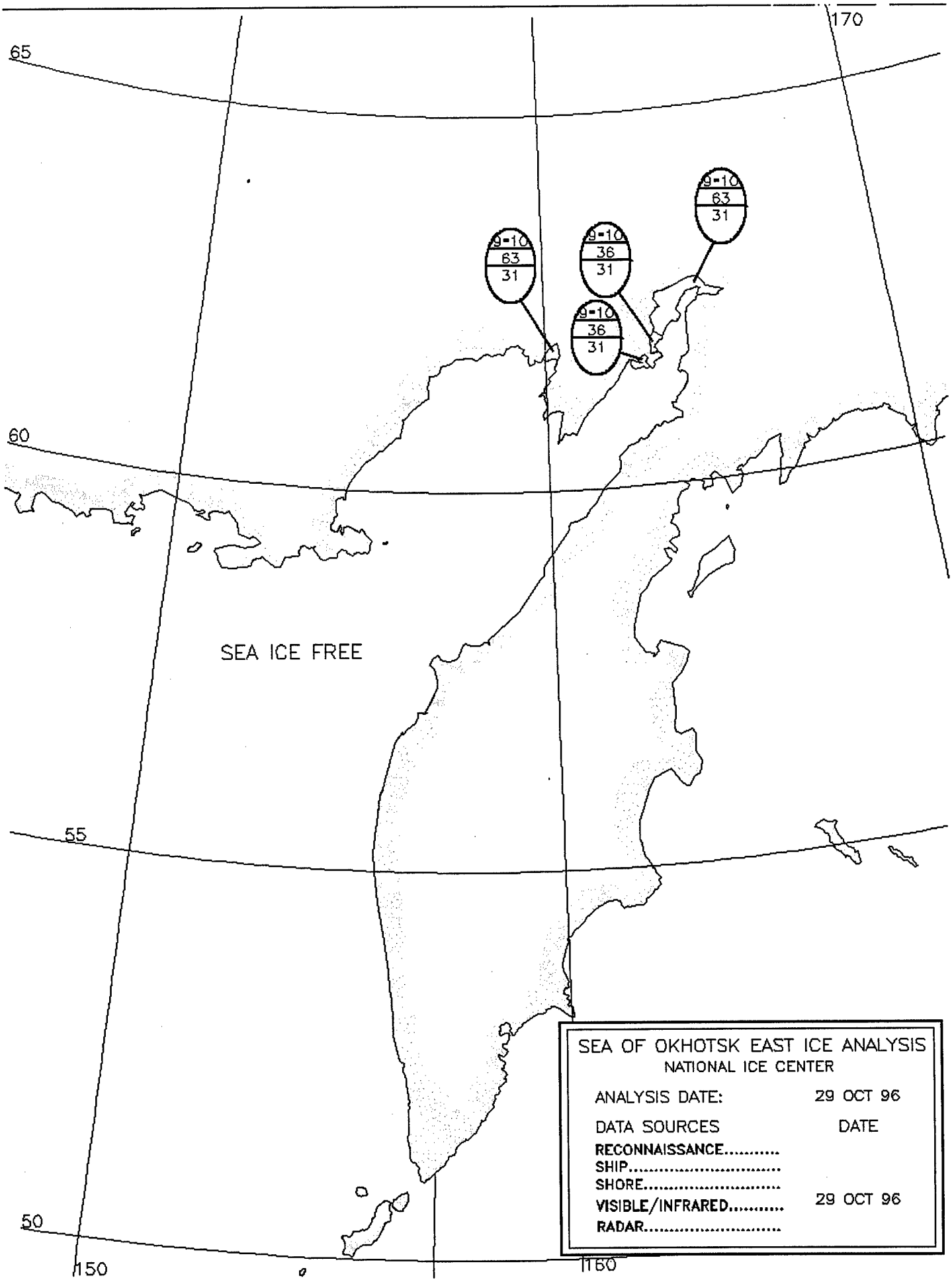

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 07-10 DEC 96
RADAR.....
CM = THEROREtICAL ICE THICKNESS IN CENTIMETERS
130
150
65
60
55
50
45
140
26
A= 10 073 731 8
B= 10 19 73 8
C= 8-10 252 731
D= 7-9 161 731
9-10 441 731
10 37 73 8
9-10 351 731
7-9 341 731 ~10
9-10 261 731
7-9 161 731
9-10 180 731
9-10 180 731
10 19 73 8
10 19 73 8
10 19 73 8
7-9 62 31 ~10
SEA ICE FREE
SEA ICE FREE

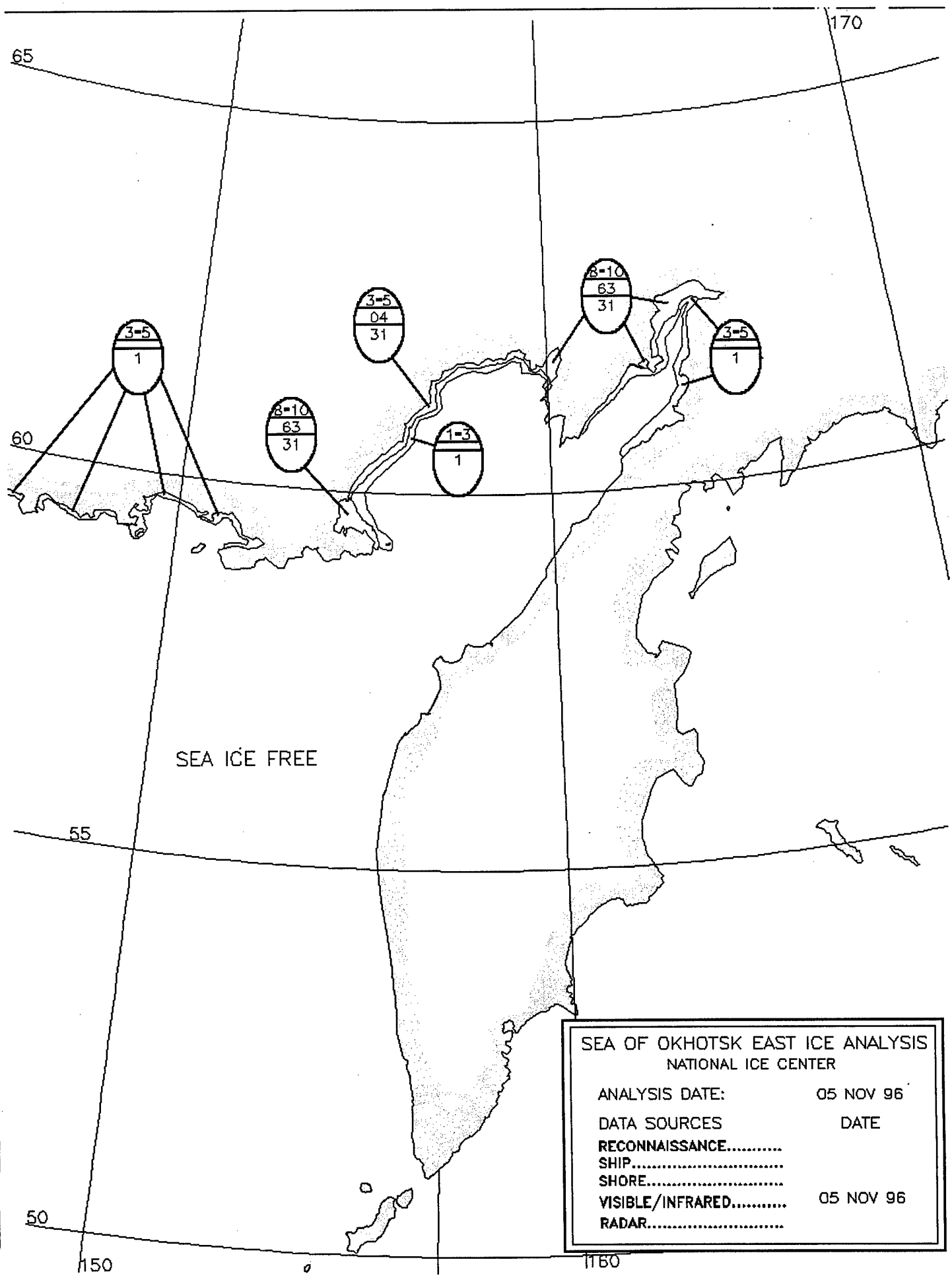

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 13-16 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA ICE FREE
130
150
65
60
55
50
140
52
30
A= 3-5 / 220 / 731
F= 8-10 / 054 / 731
B= 10 / 37 / 73
C= 2-4 / 210 / 731 / ~10
D= 9-10 / 270 / 731
E= 10 / 19 / 73 / 8
9-10 / 450 / 731
8-10 / 450 / 731
10 / 55 / 73 / 8
10 / 55 / 73 / 8
7-9 / 341 / 731
2-4 / 210 / 731 / ~10
7-9 / 341 / 731
8-10 / 342 / 731
2-4 / 210 / 731 / ~10
1-3 / 20 / 31 / ~10
9-10 / 360 / 731
1-3 / 20 / 31 / ~10
10 / 37 / 73
10 / 37 / 73
8-10 / 270 / 731
A
B
C
B
D
E
E
F

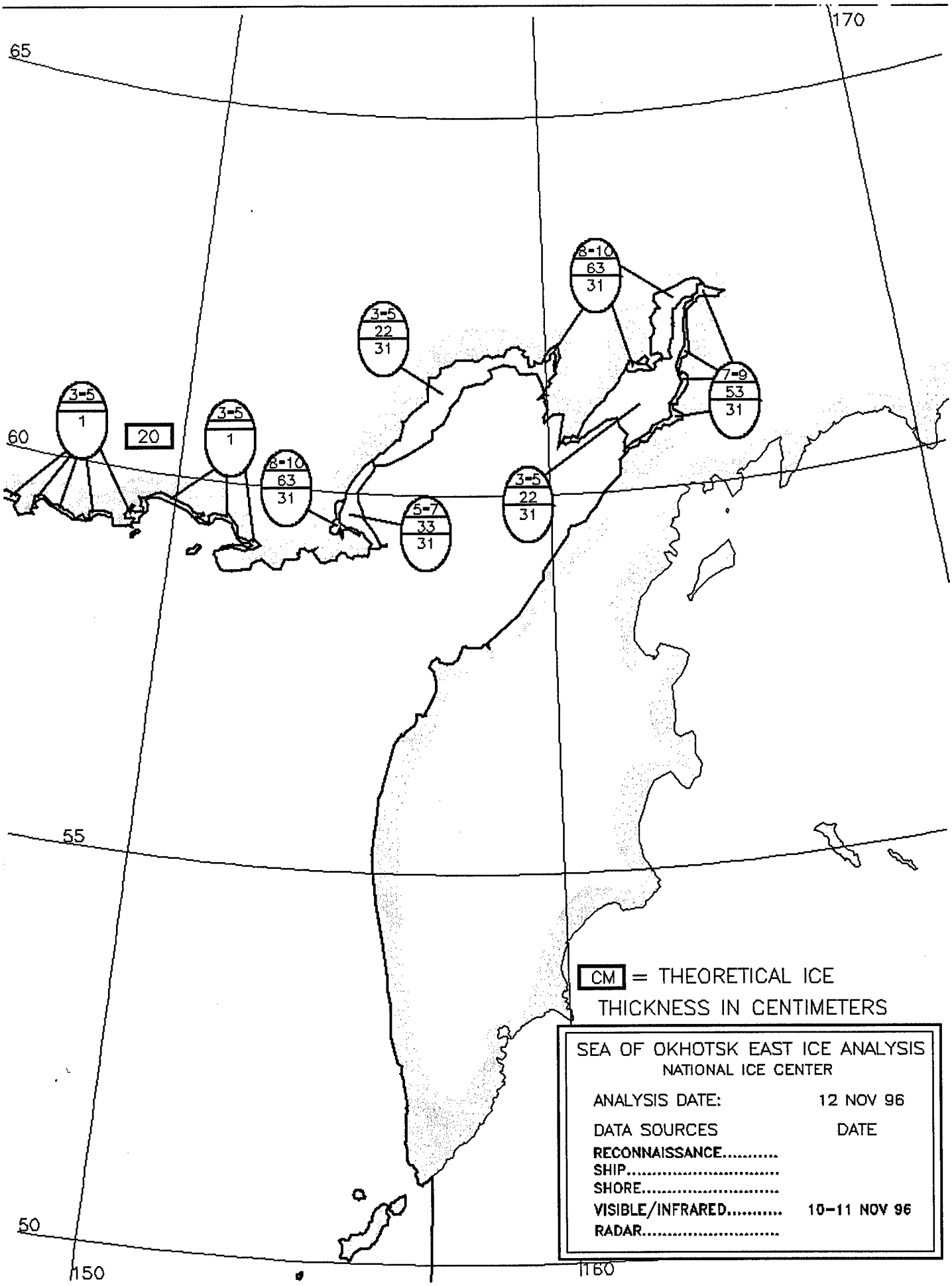

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22-23 DEC 96
RADAR.....
130
150
65
60
55
50
140
A= 7-9 / 53 / 31 / ~10
G= 7-9 / 161 / 731
L= 9-10 / 252 / 731
B= 9-10 / 153 / 731
H= 7-9 / 44 / 31
M= 10 / 37 / 73
C= 9-10 / 27 / 73
I= 8-10 / 243 / 731
D= 10 / 3 / 8
J= 7-9 / 17 / 73
E= 10 / 37 / 73 / 8
K= 8-10 / 252 / 731
F= 7-9 / 341 / 731
9-10 / 45 / 73
10 / 55 / 73 / 8
7-9 / 341 / 731
3-5 / 211 / 731 / ~10
8-10 / 342 / 731
9-10 / 351 / 731
8-10 / 243 / 731
6-8 / 142 / 731
2-4 / 21 / 31 / ~9
9-10 / 36 / 73
10 / 37 / 73 / 8
10 / 37 / 73 / 8
9-10 / 27 / 73
10 / 19 / 73 / 8
5-7 / 42 / 31 / ~9
F
K
L
J
H
G
I
D
C
E
M
D
A
B

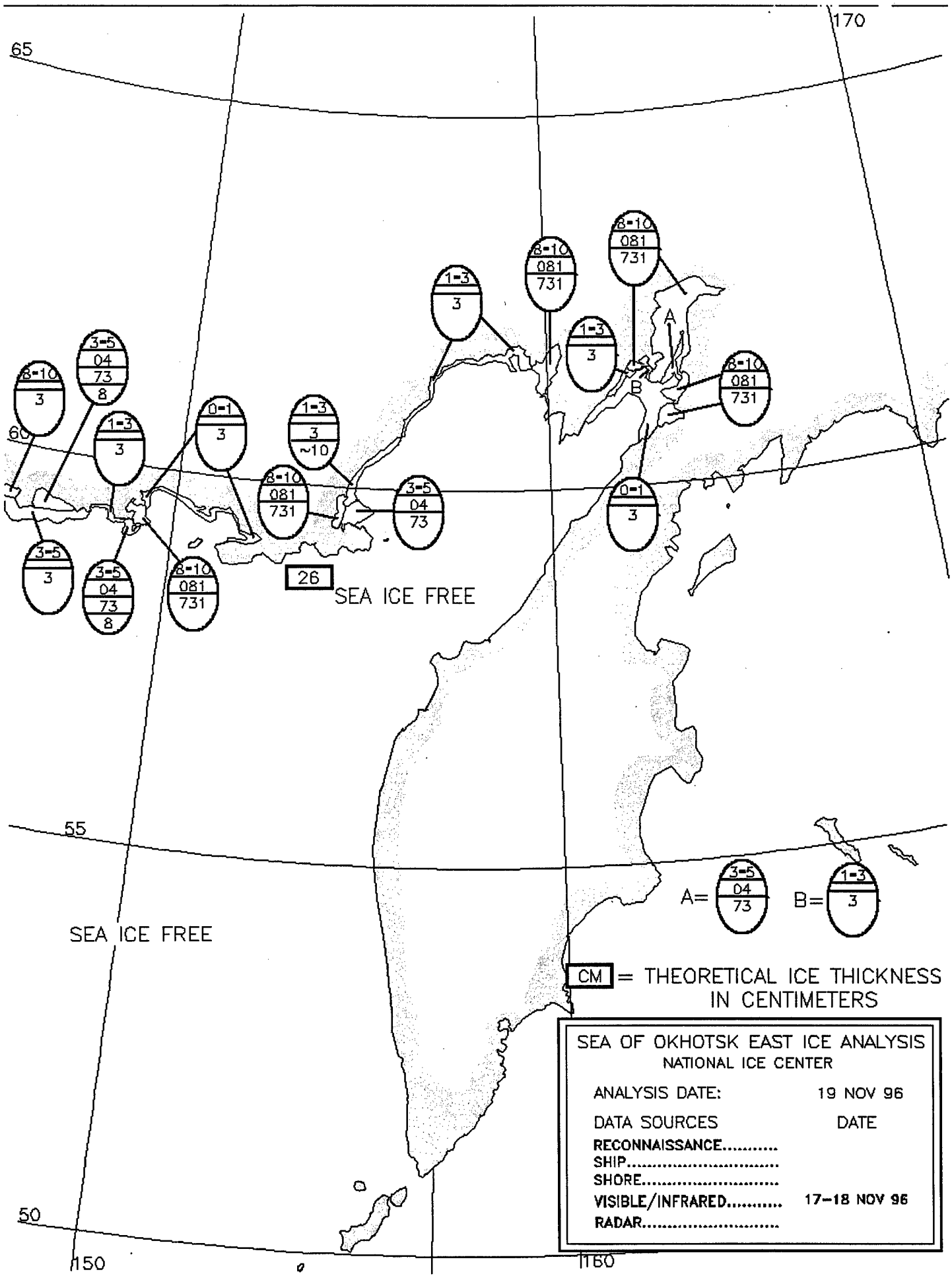

SEA OF OKHOTSK WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 8-10 / 531 / 731
B = 7-9 / 431 / 731
C = 9-10 / 441 / 731
D = 8-10 / 441 / 731
E = 9-10 / 351 / 731
F = 7-9 / 341 / 731
G = 7-9 / 332 / 731
H = 6-8 / 232 / 731
I = 10 / 37 / 73 / 8
J = 10 / 46 / 73 / 8
K = 10 / 3 / 8
130
150
65
60
55
50
140
45
57
10 / 64 / 73 / 8
6-8 / 511 / 731
9-10 / 63 / 73
8-10 / 621 / 731
7-9 / 521 / 731
7-9 / 611 / 731
7-9 / 521 / 731
4-6 / 311 / 731
6-8 / 331 / 731
2-4 / 120 / 731 / ~9
8-10 / 531 / 731
9-10 / 531 / 731
8-10 / 54 / 73
8-10 / 342 / 731
9-10 / 45 / 73
10 / 46 / 73 / 8

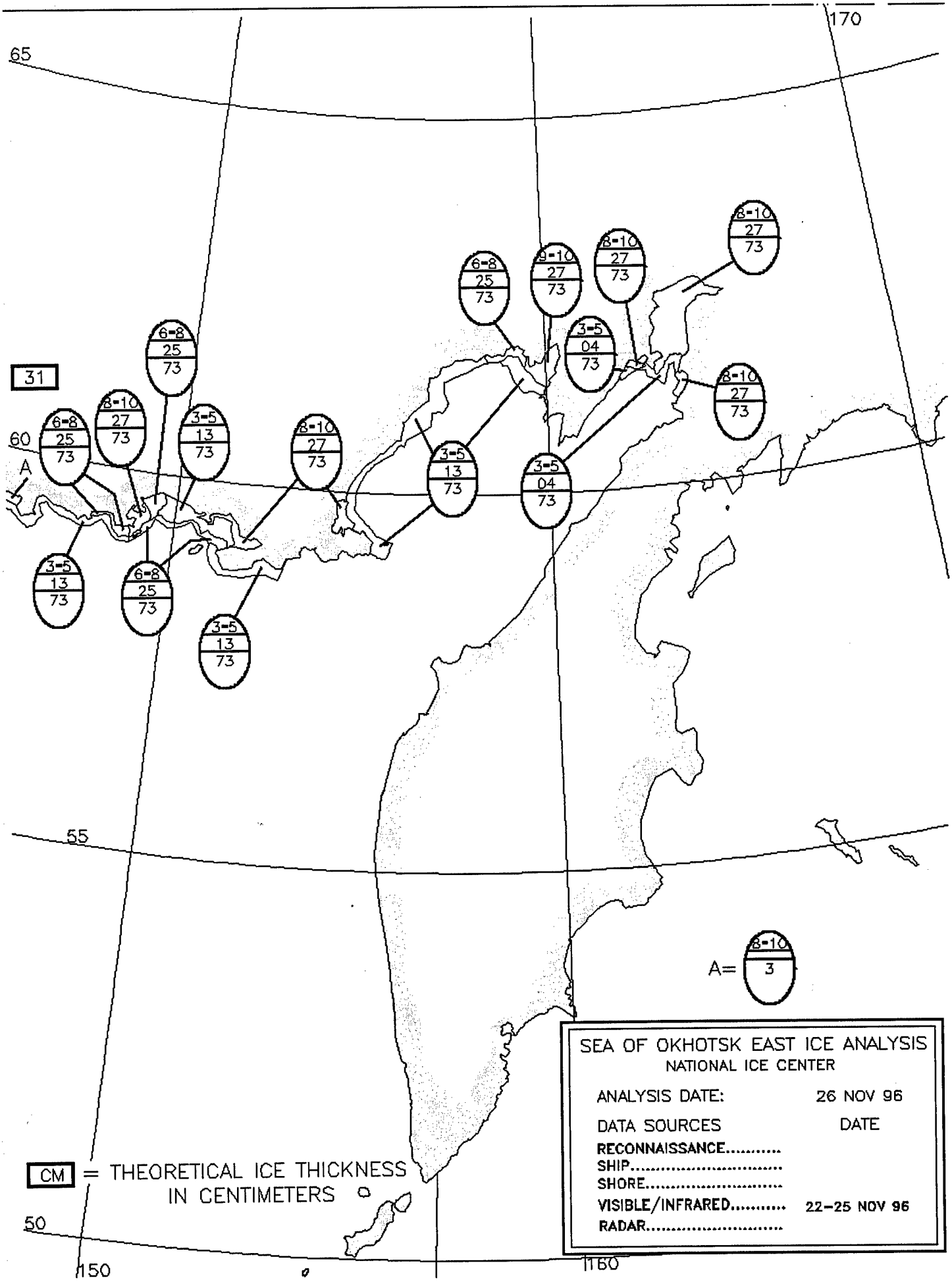

65
60
55
50
170
150
160
8-10
54
31
8-10
54
31
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 OCT 96
RADAR.....

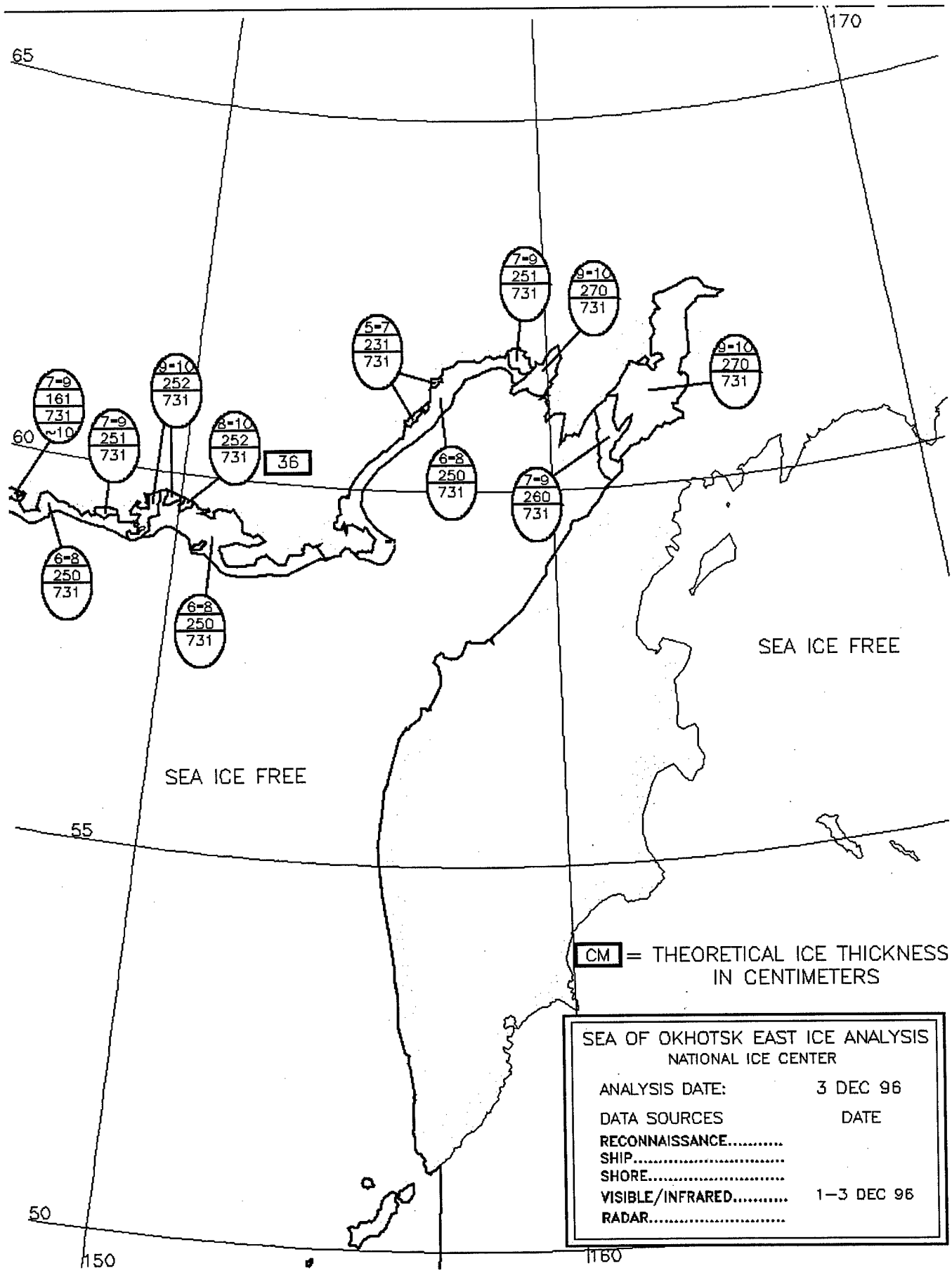

65
60
55
50
150
160
170
9-10
63
31
9-10
36
31
9-10
36
31
9-10
63
31
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 29 OCT 96
RADAR.....

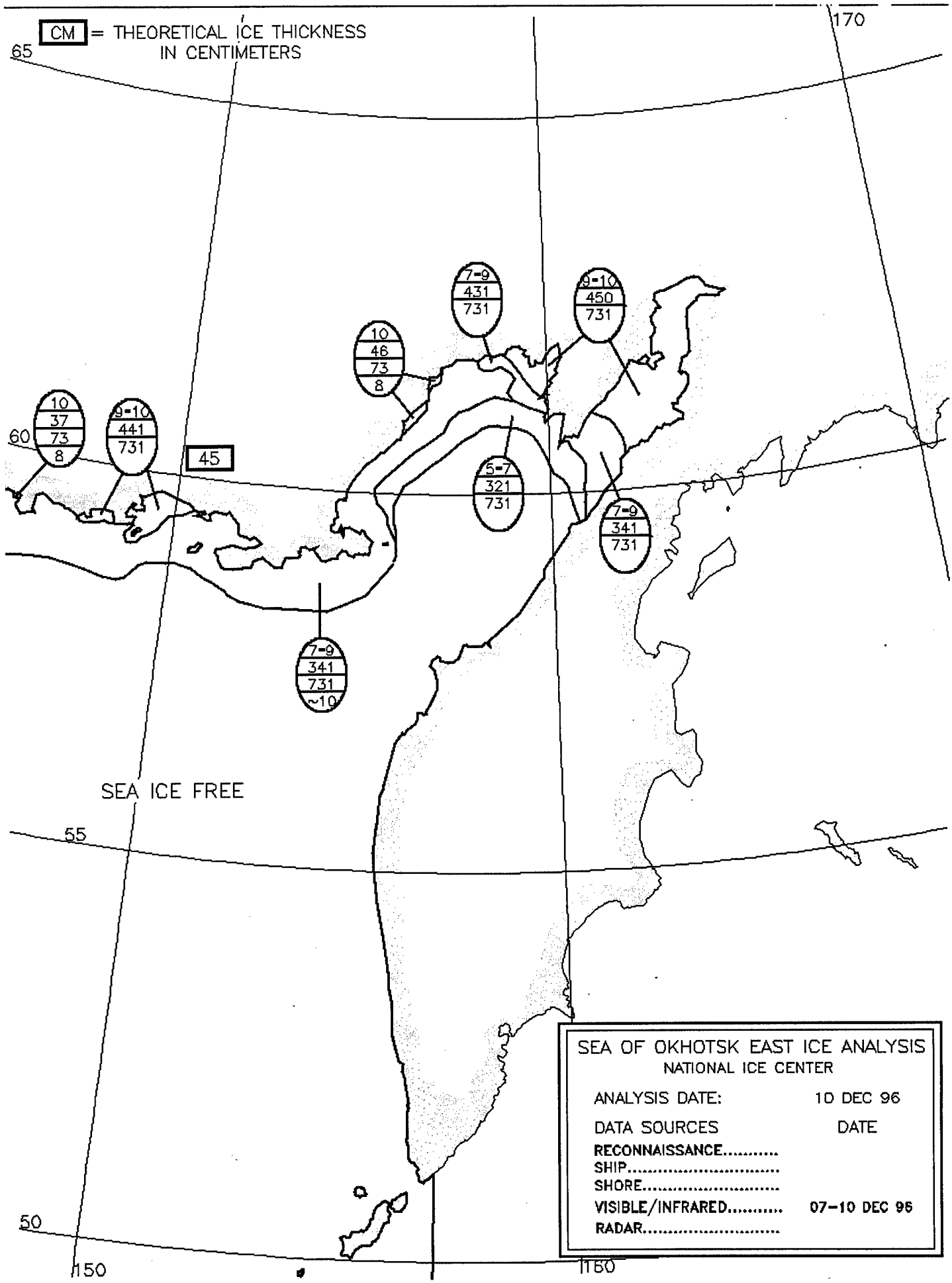

170
65
60
55
50
150
160
3-5
1
8-10
63
31
3-5
04
31
1-3
1
8-10
63
31
3-5
1
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 05 NOV 96
RADAR.....

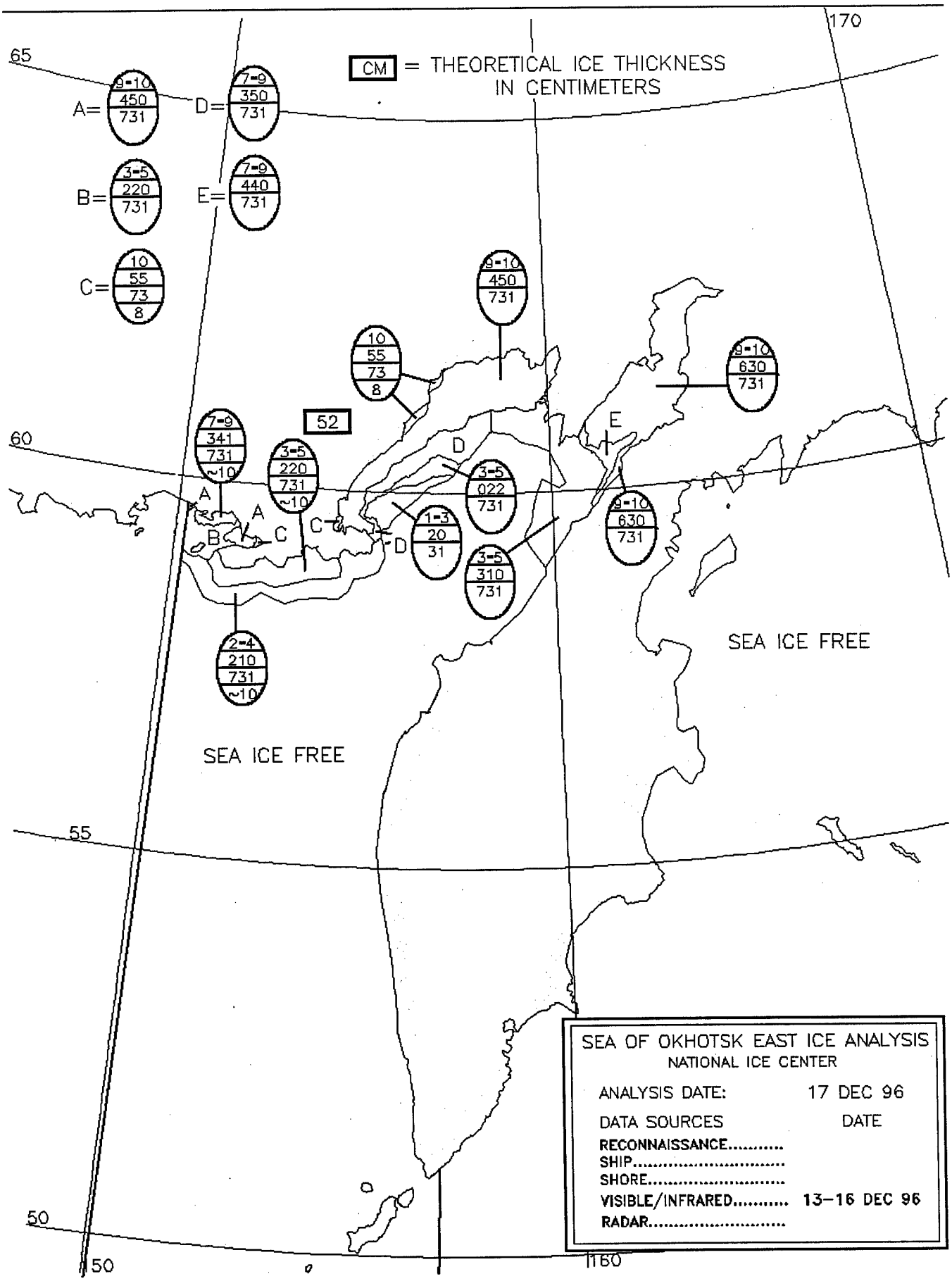

170
65
60
55
50
150
160
3-5
1
20
3-5
1
8-10
63
31
3-5
22
31
5-7
33
31
3-5
22
31
8-10
63
31
7-9
53
31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 10-11 NOV 96
RADAR.....

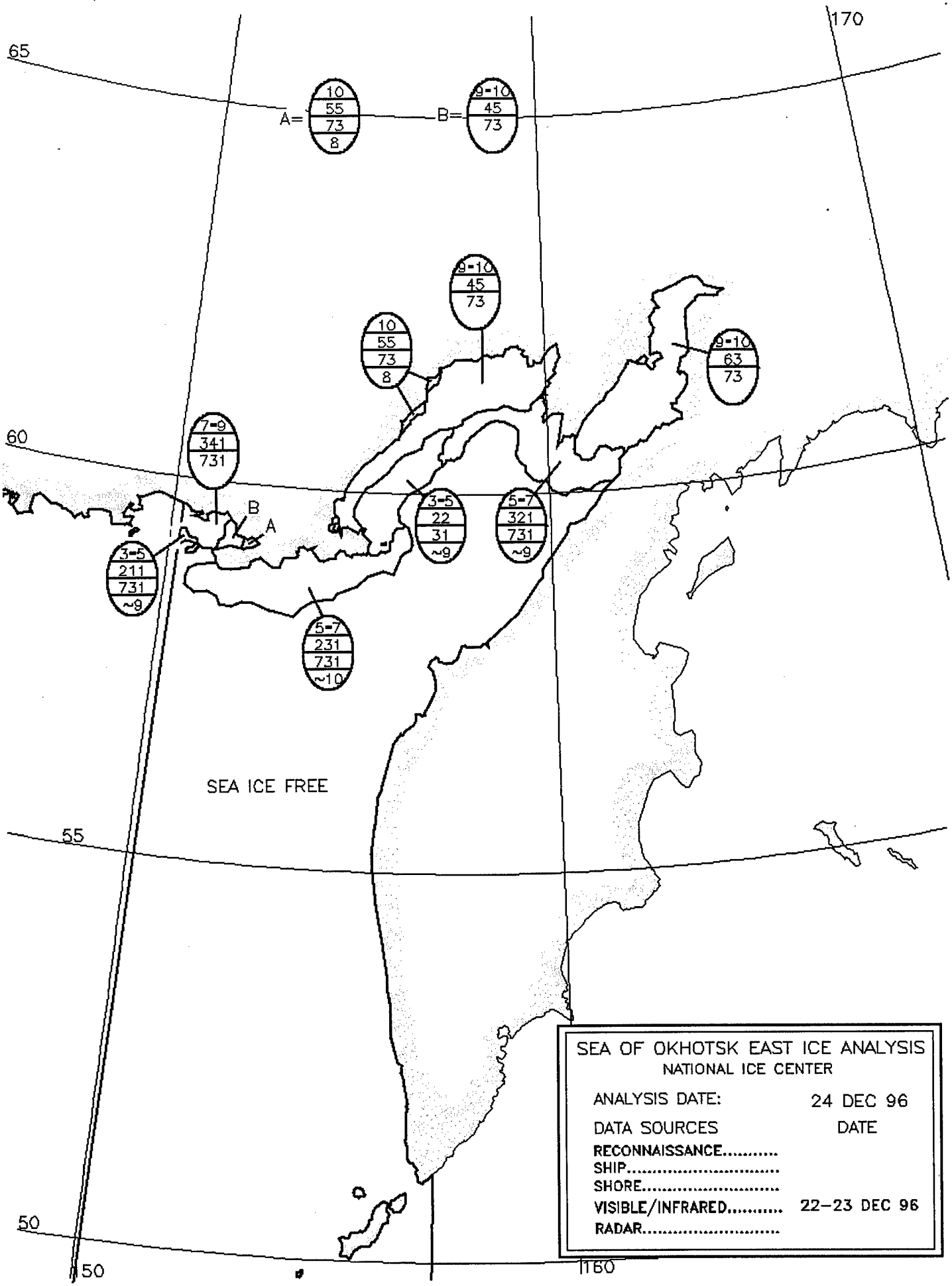

170
65
60
55
50
150
160
8-10
3
3-5
04
73
8
1-3
3
0-1
3
1-3
3
~10
8-10
081
731
3-5
04
73
3-5
3
3-5
04
73
8
8-10
081
731
26
SEA ICE FREE
1-3
3
8-10
081
731
1-3
3
8-10
081
731
A
B
8-10
081
731
0-1
3
SEA ICE FREE
A= 3-5 04 73
B= 1-3 3
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17-18 NOV 96
RADAR.....

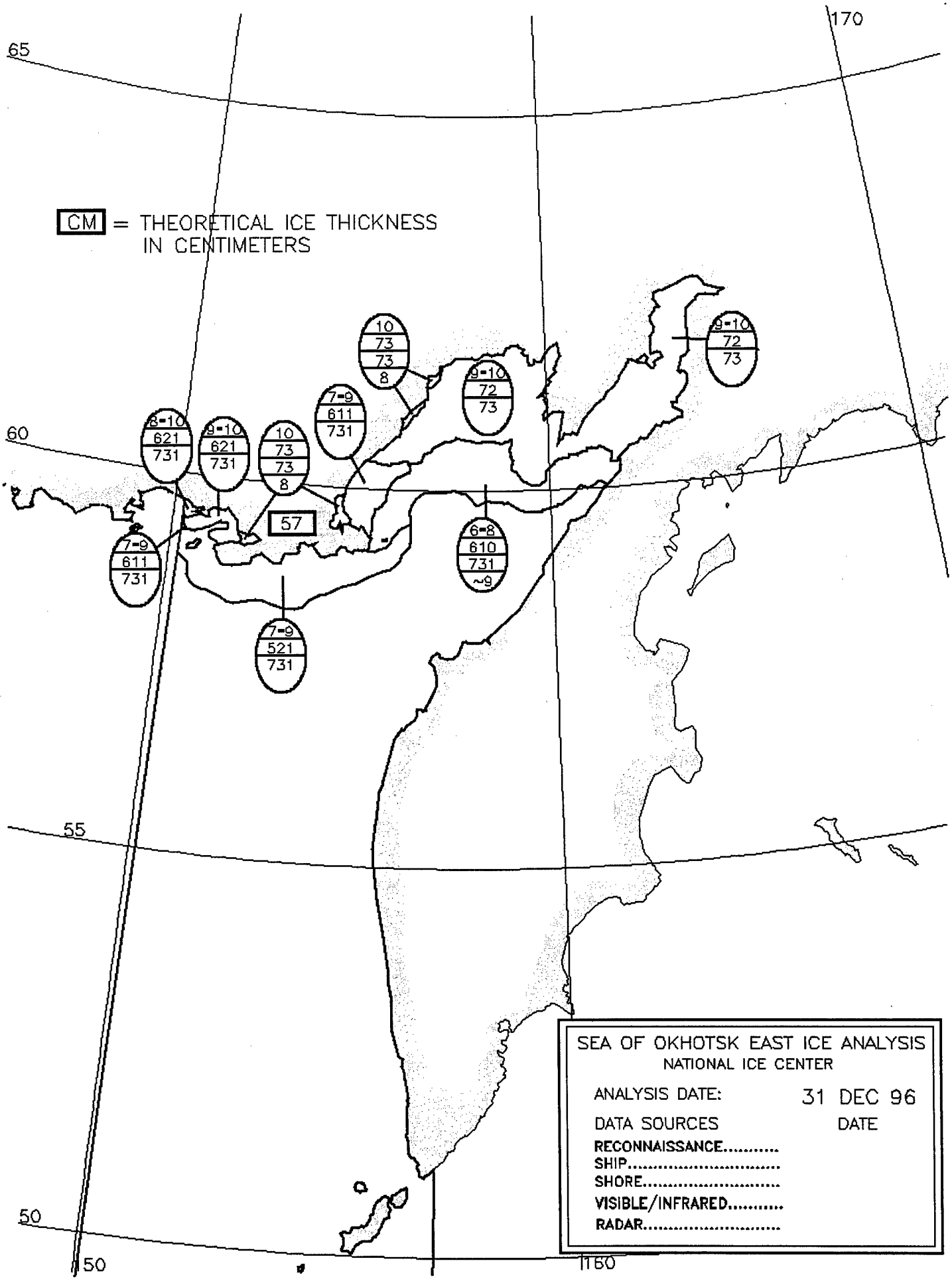

170
65
60
55
50
150
160
31
A
6-8
25
73
8-10
27
73
3-5
13
73
9-10
27
73
3-5
04
73
A=
8-10
3
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22-25 NOV 96
RADAR.....

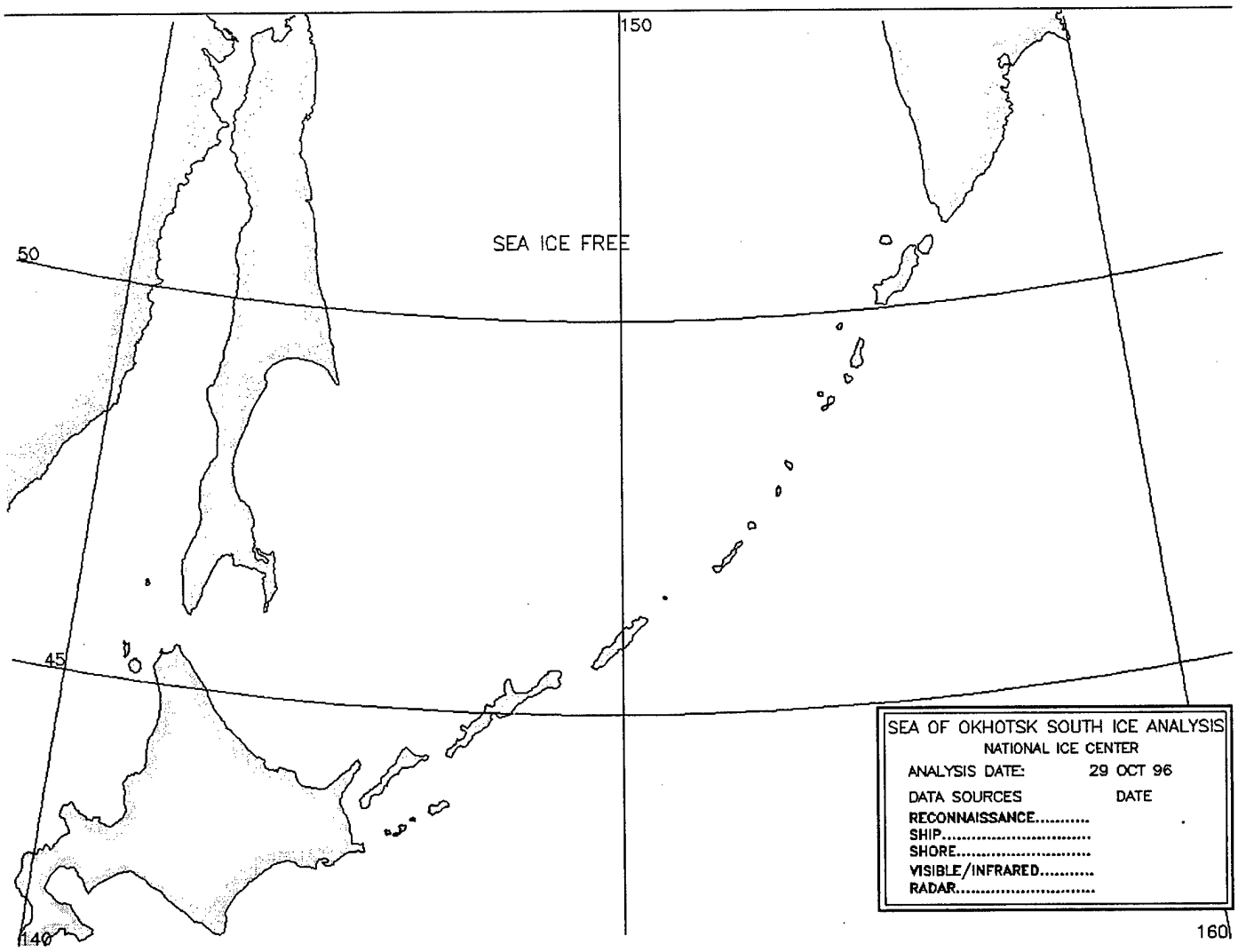

65
60
55
50
150
160
170
7-9
161
731
~10
7-9
251
731
9-10
252
731
8-10
252
731
36
6-8
250
731
6-8
250
731
5-7
231
731
6-8
250
731
7-9
251
731
9-10
270
731
7-9
260
731
9-10
270
731
SEA ICE FREE
SEA ICE FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 1–3 DEC 96
RADAR.....

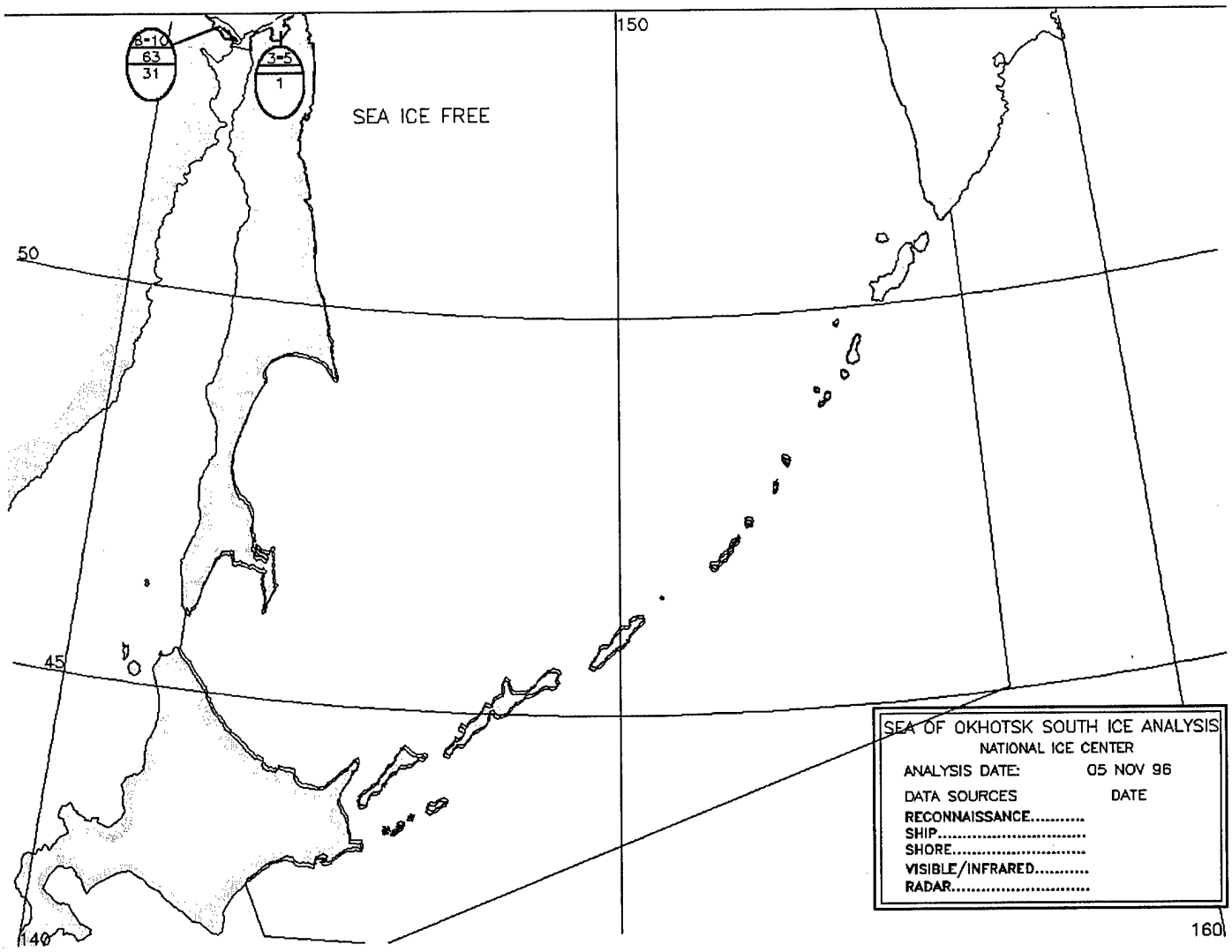

CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
65
60
55
50
170
150
160
10
37
73
8
9-10
441
731
45
10
46
73
8
7-9
431
731
9-10
450
731
5-7
321
731
7-9
341
731
7-9
341
731
~10
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 07-10 DEC 96
RADAR.....

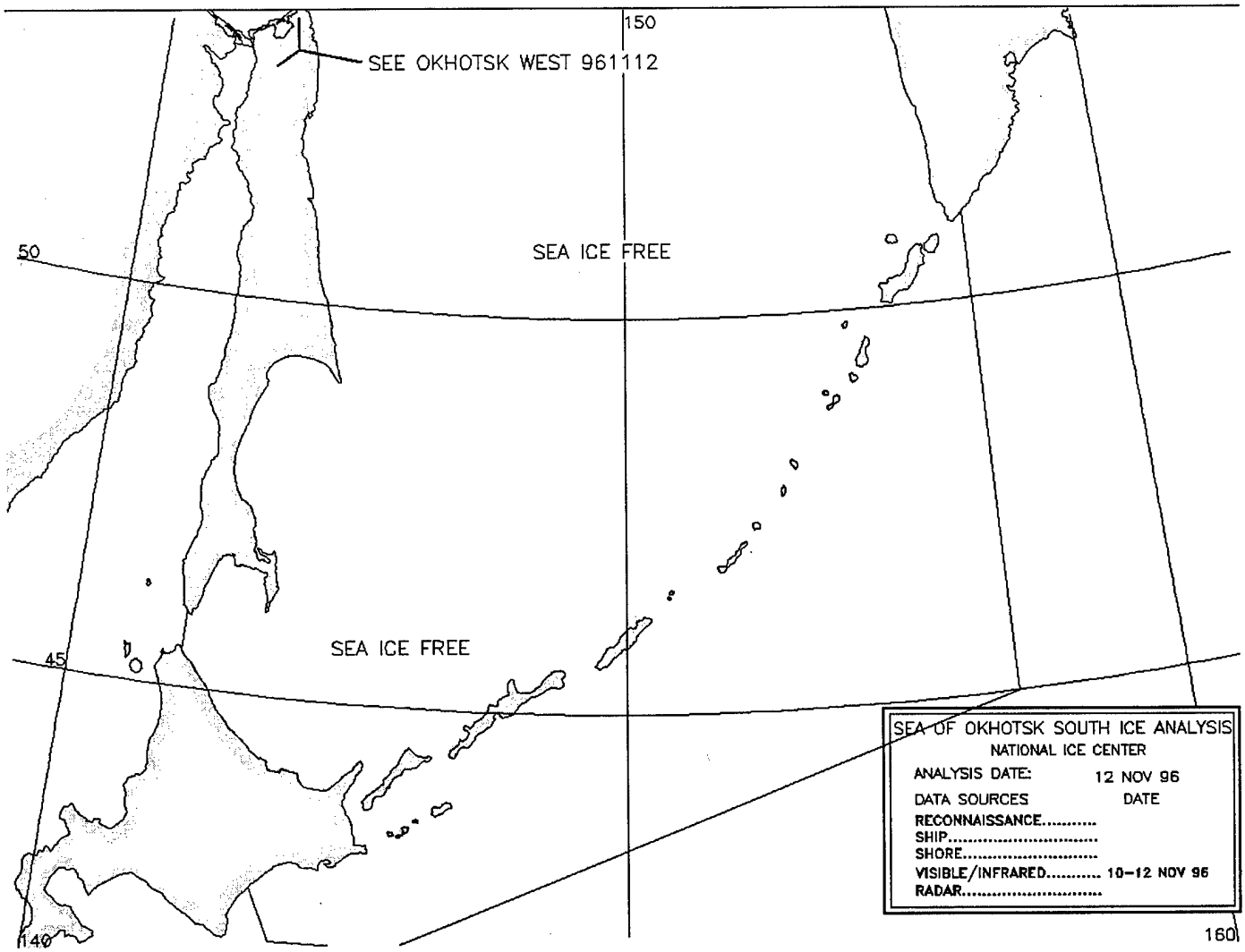

CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 450 731
D= 7-9 350 731
B= 3-5 220 731
E= 7-9 440 731
C= 10 55 73 8
65
60
55
50
170
160
150
52
7-9 341 731 ~10
3-5 220 731 ~10
2-4 210 731 ~10
10 55 73 8
9-10 450 731
9-10 630 731
3-5 022 731
1-3 20 31
3-5 310 731
9-10 630 731
A
B
C
D
E
SEA ICE FREE
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 13-16 DEC 96
RADAR.....


65
60
55
50
170
160
150
A=
10
55
73
8
B=
9-10
45
73
9-10
45
73
10
55
73
8
9-10
63
73
7-9
341
731
B
A
3-5
211
731
~9
3-5
22
31
~9
5-7
321
731
~9
5-7
231
731
~10
SEA ICE FREE
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22-23 DEC 96
RADAR.....


CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
65
60
55
50
170
160
150
8-10
621
731
9-10
621
731
10
73
73
8
7-9
611
731
10
73
73
8
9-10
72
73
9-10
72
73
57
7-9
611
731
6-8
610
731
~9
7-9
521
731
SEA OF OKHOTSK EAST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


150
SEA ICE FREE
50
45
140
160
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


8-10
63
31
3-5
1
SEA ICE FREE
150
50
45
140
160
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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SEE OKHOTSK WEST 961112
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SEA ICE FREE
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SEA ICE FREE
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160
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
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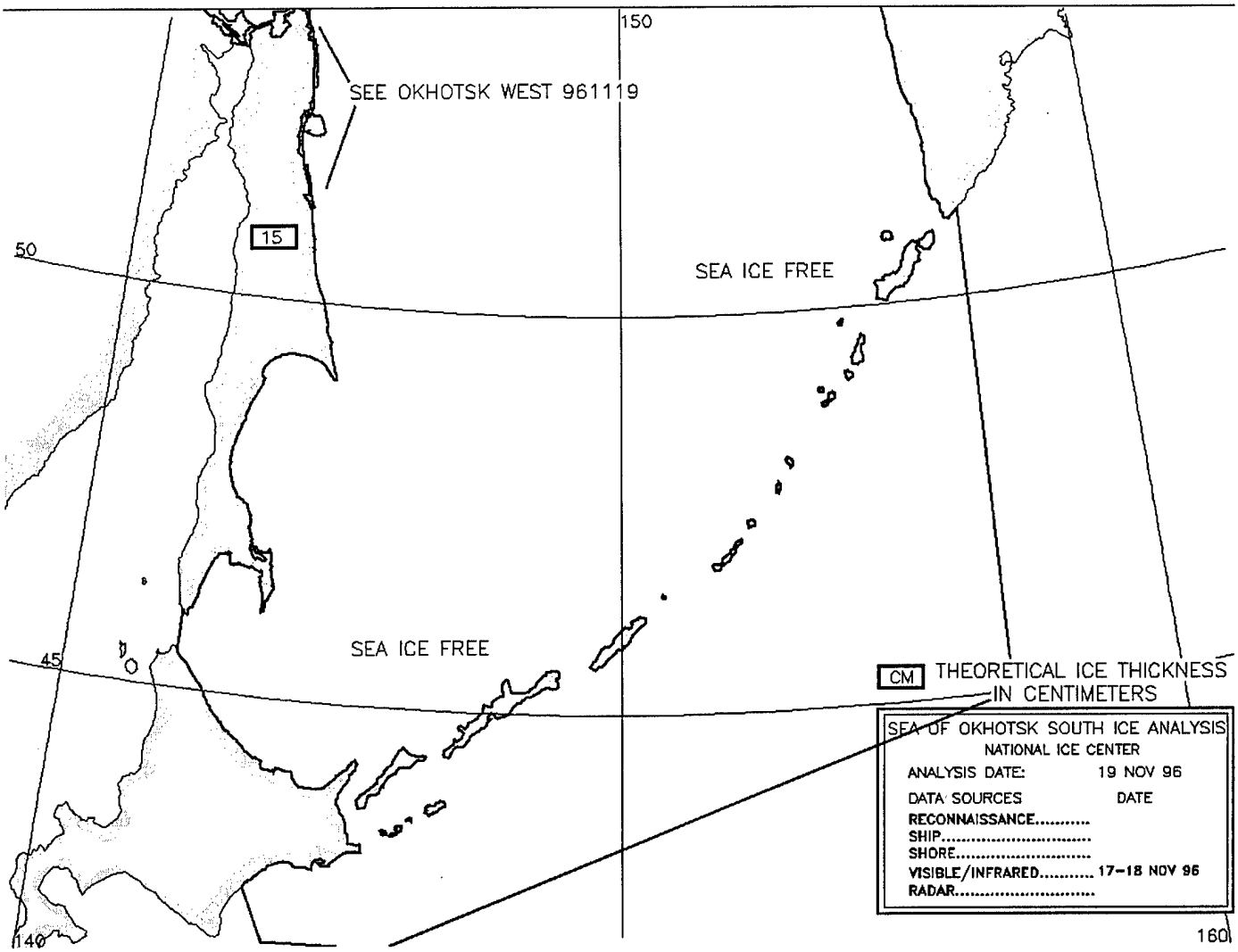
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 10-12 NOV 96
RADAR.....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SEE OKHOTSK WEST 961119
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SEA ICE FREE
SEA ICE FREE
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CM THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17-18 NOV 96
RADAR.....
140
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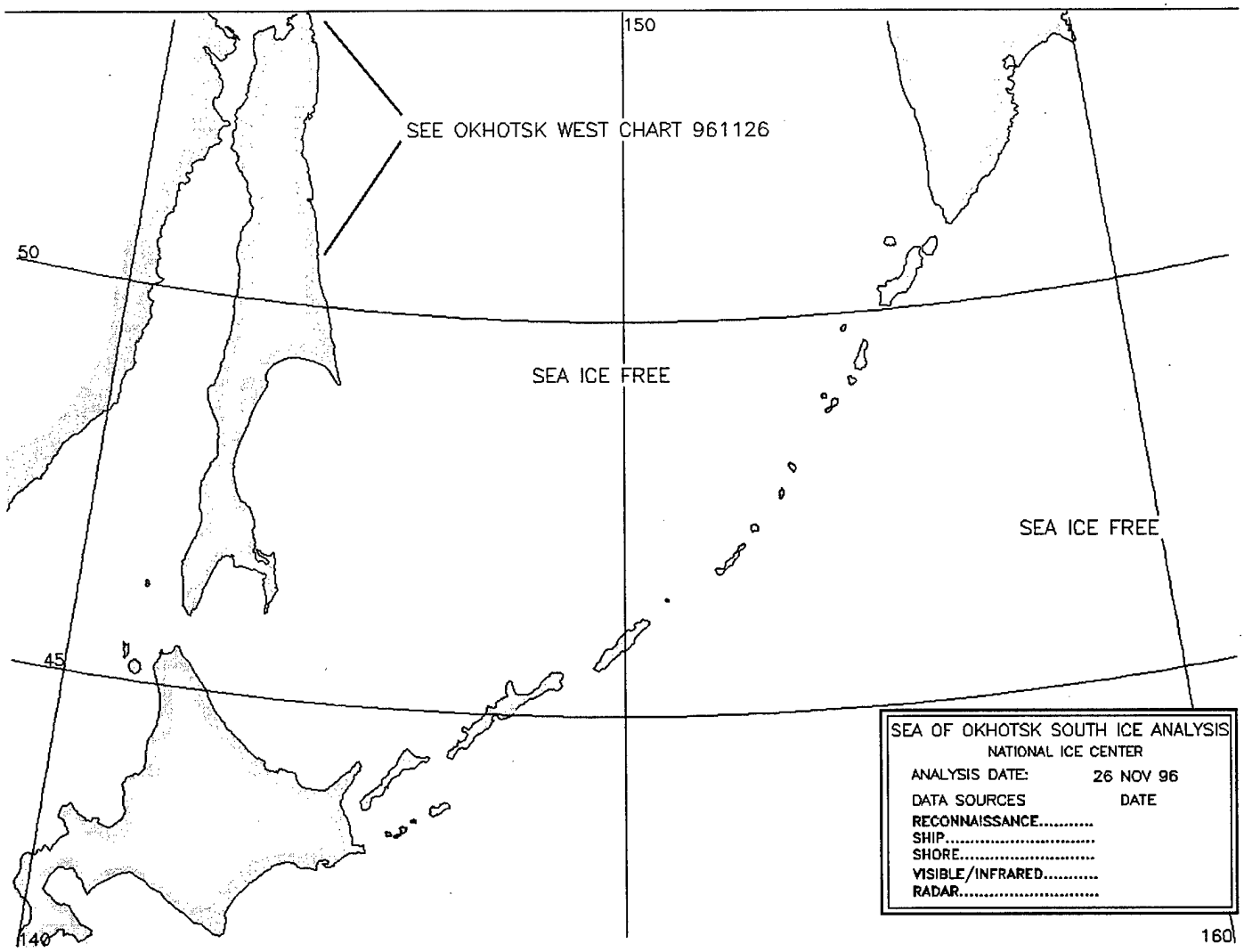
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SEE OKHOTSK WEST CHART 961126
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SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
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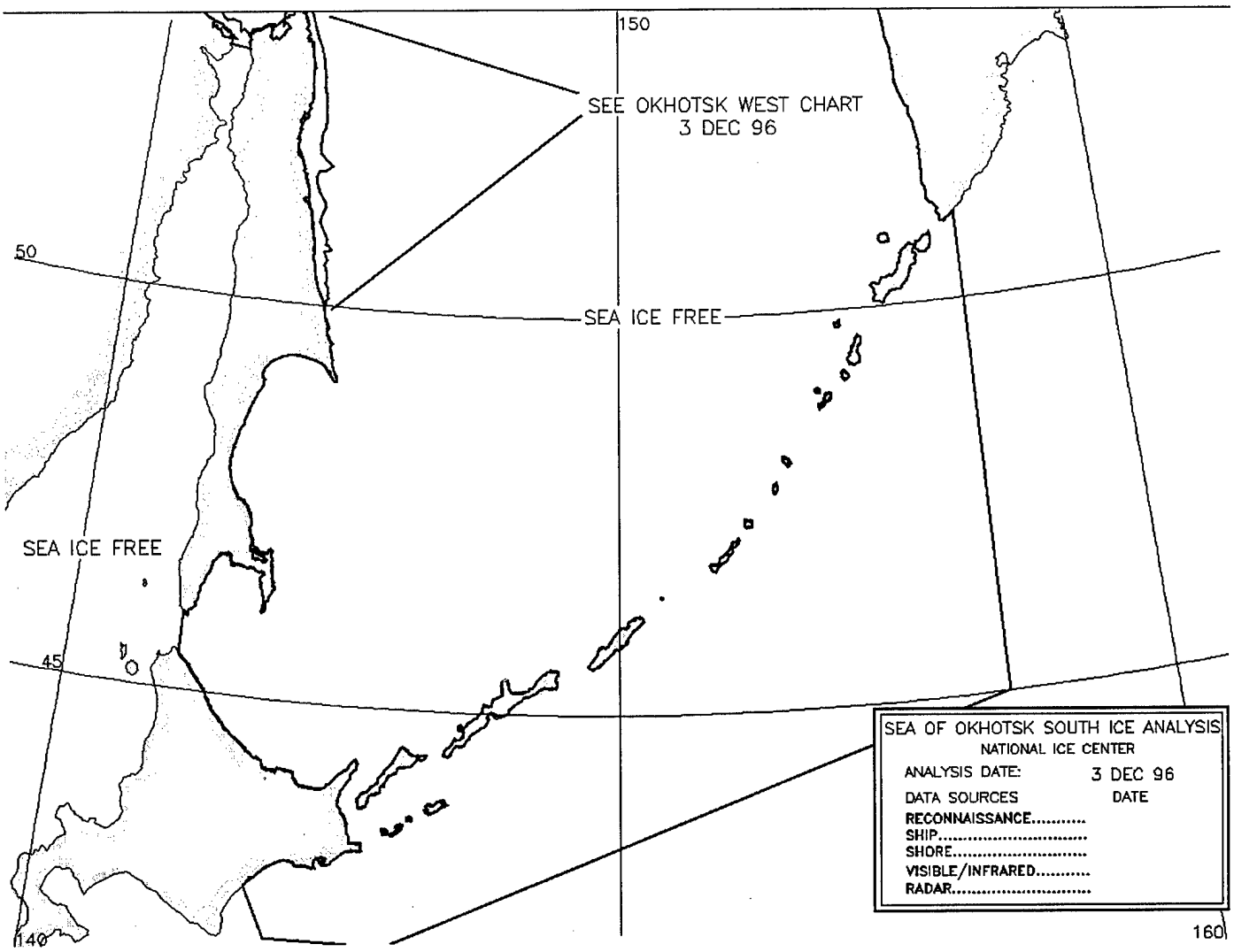
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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SEE OKHOTSK WEST CHART
3 DEC 96
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SEA ICE FREE
SEA ICE FREE
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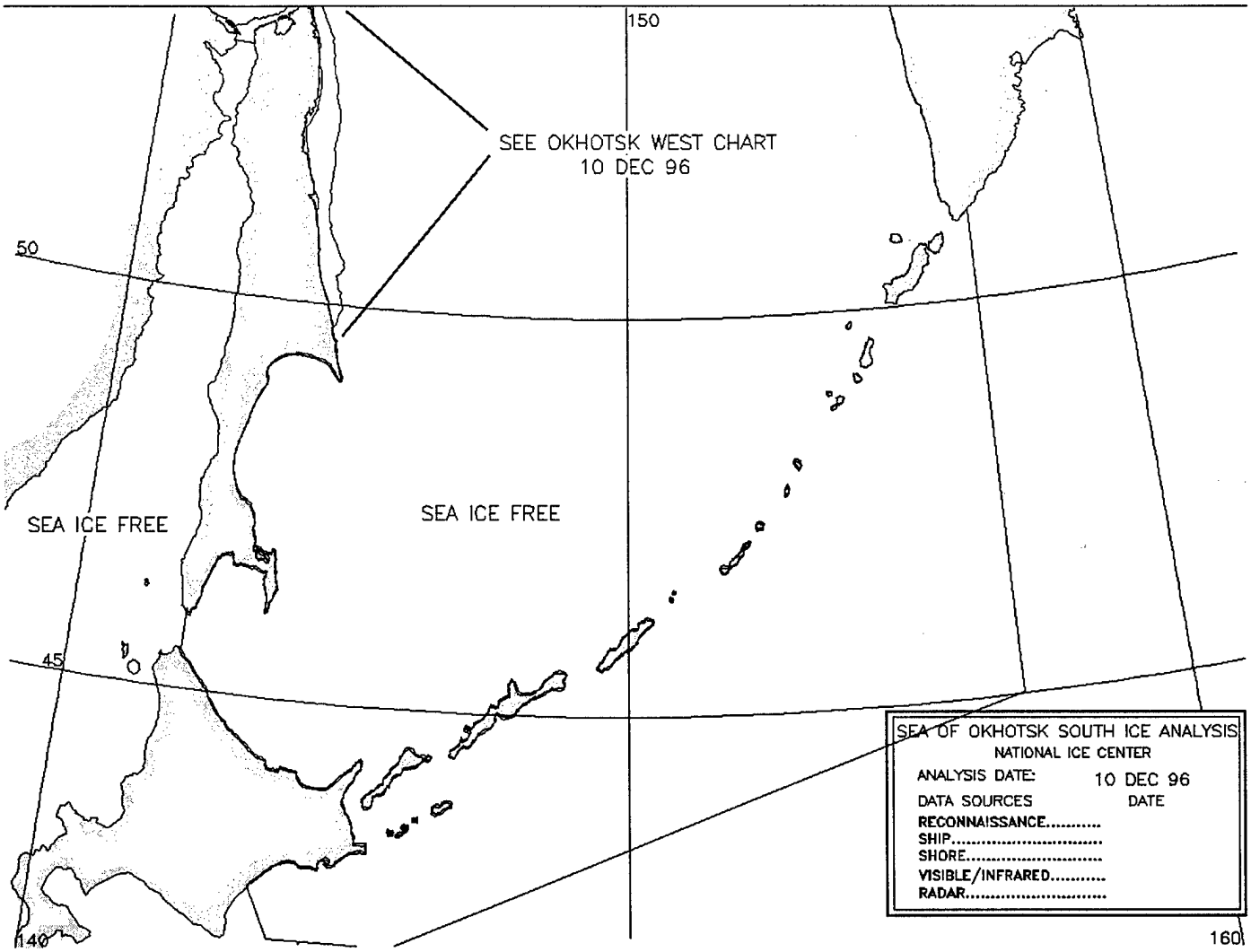
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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SEE OKHOTSK WEST CHART
10 DEC 96
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SEA ICE FREE
SEA ICE FREE
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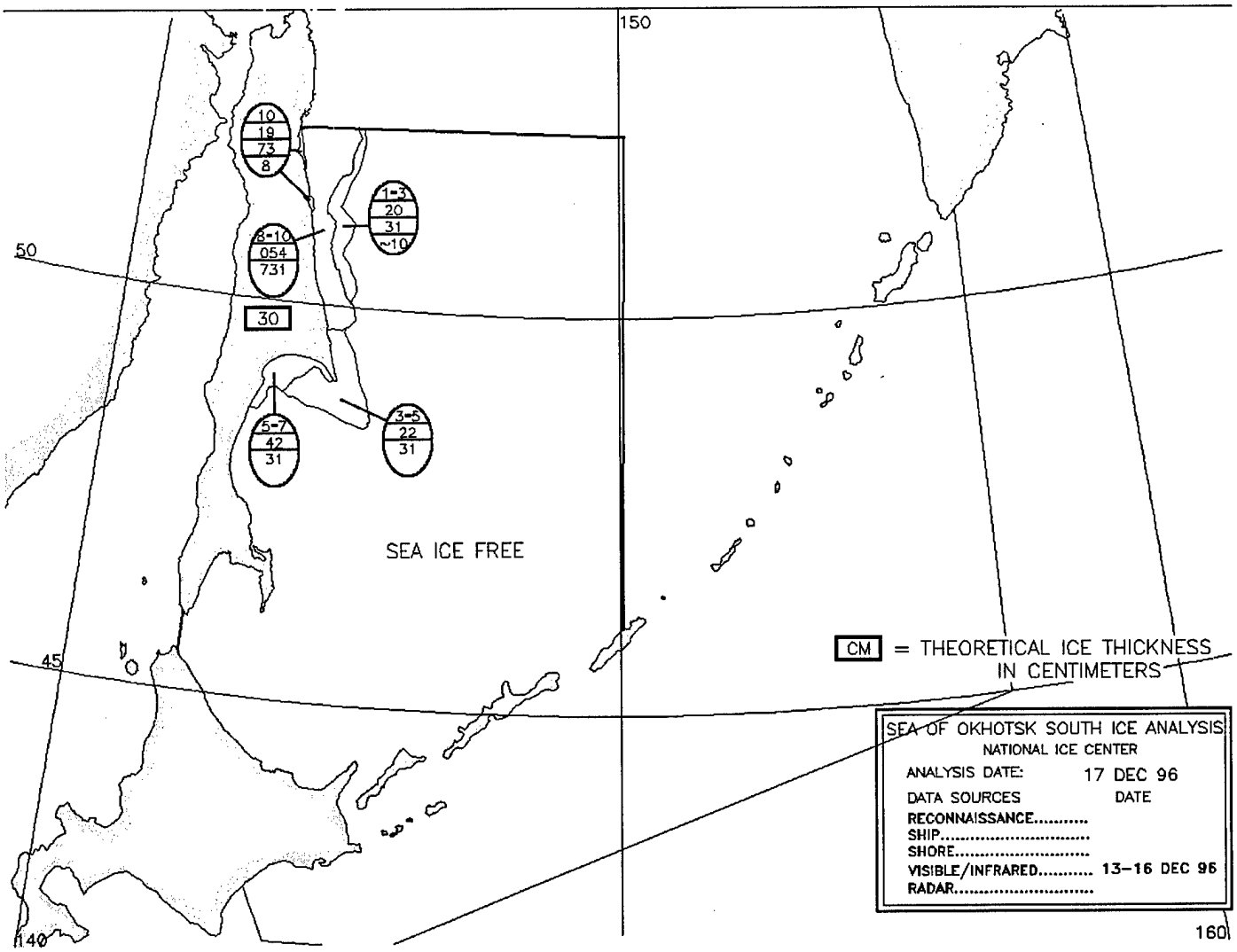
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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8-10
054
731
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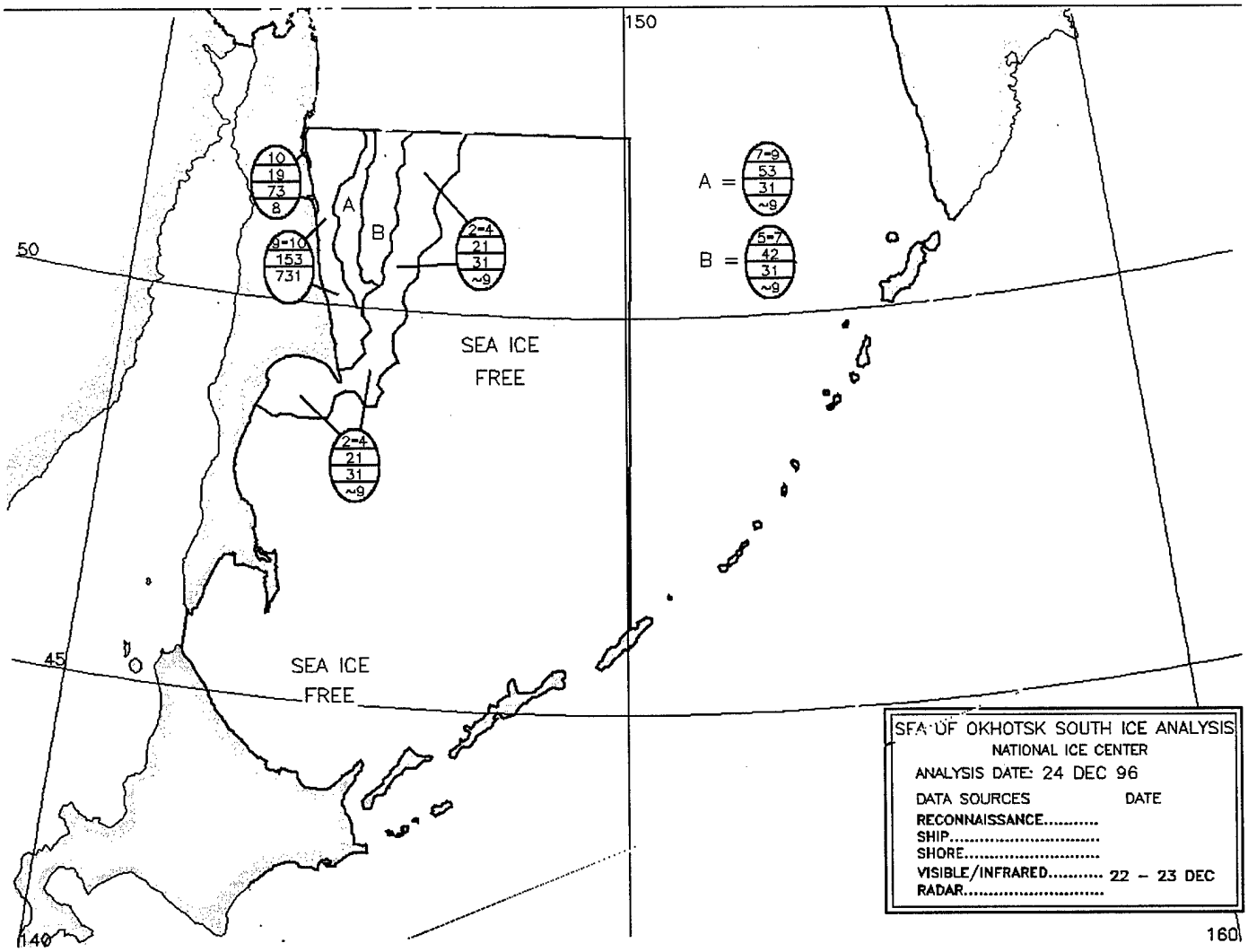
42
31
3-5
22
31
SEA ICE FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 13-16 DEC 96
RADAR.....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8
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153
731
A
B
2-4
21
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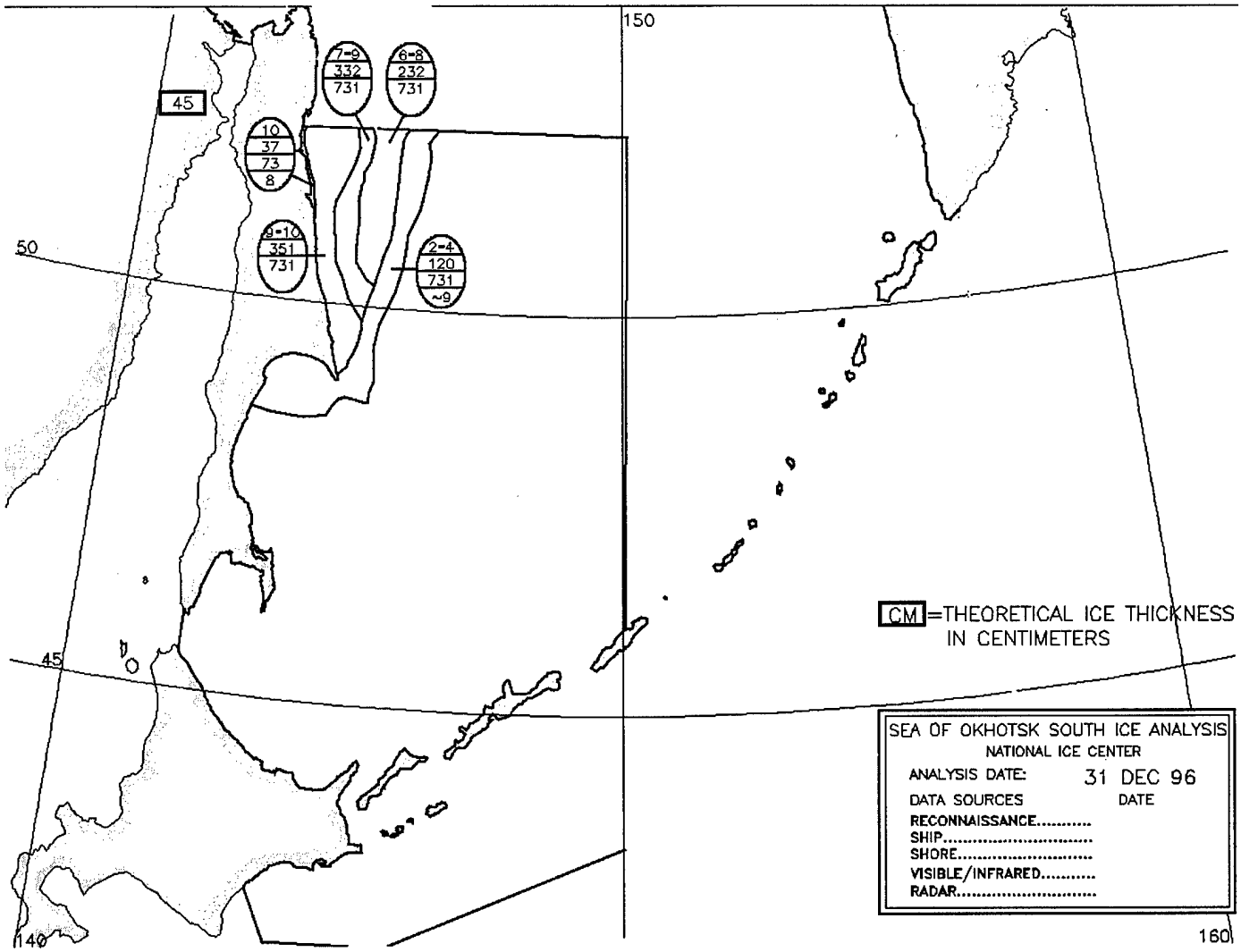
21
31
~9
A =
7-9
53
31
~9
B =
5-7
42
31
~9
SEA ICE
FREE
SEA ICE
FREE
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 - 23 DEC
RADAR.....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73
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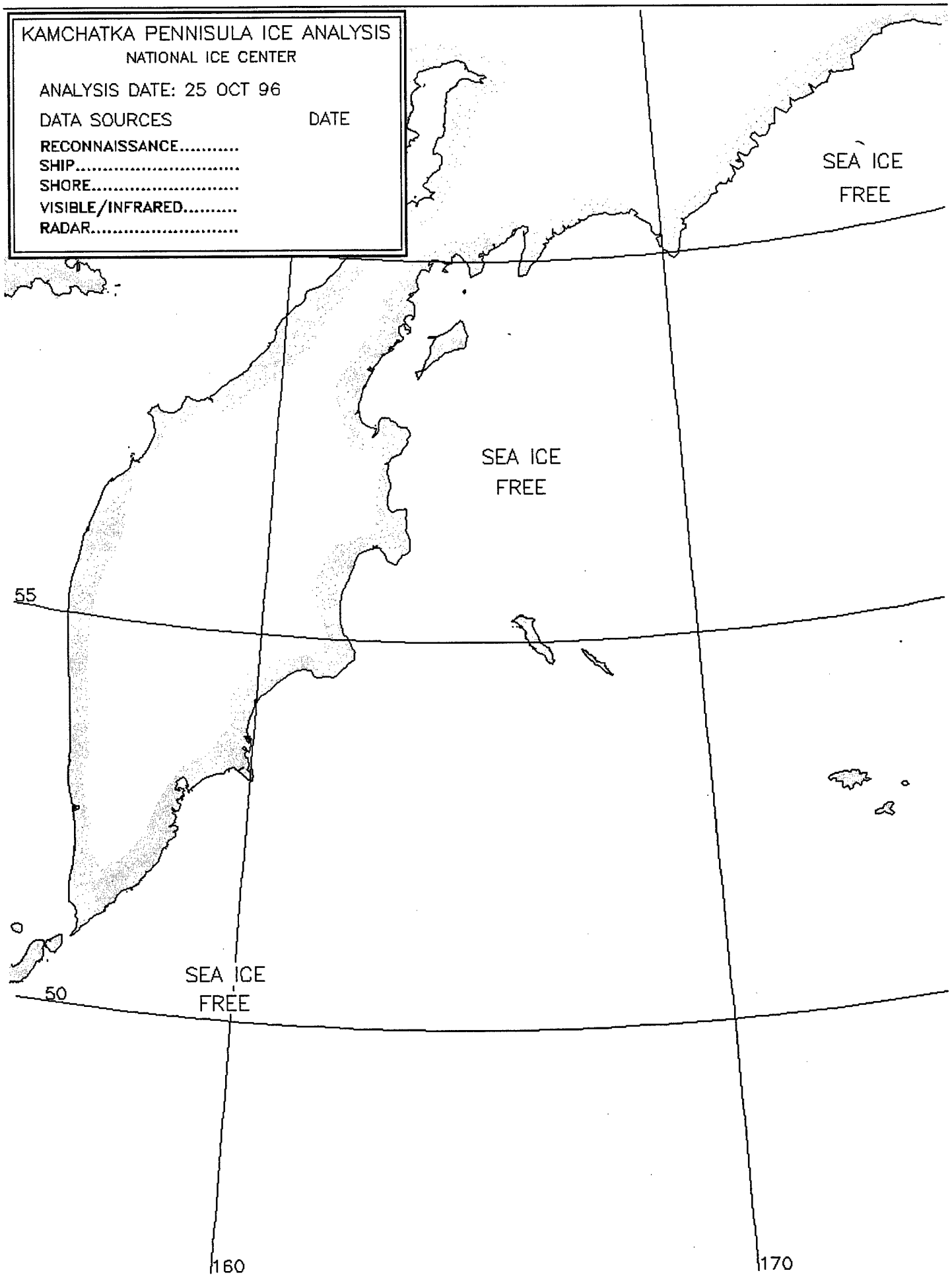
9-10
351
731
2-4
120
731
~9
CM =THEORETICAL ICE THICKNESS IN CENTIMETERS
45
SEA OF OKHOTSK SOUTH ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
140
160


KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 25 OCT 96
DATA SOURCES
DATE
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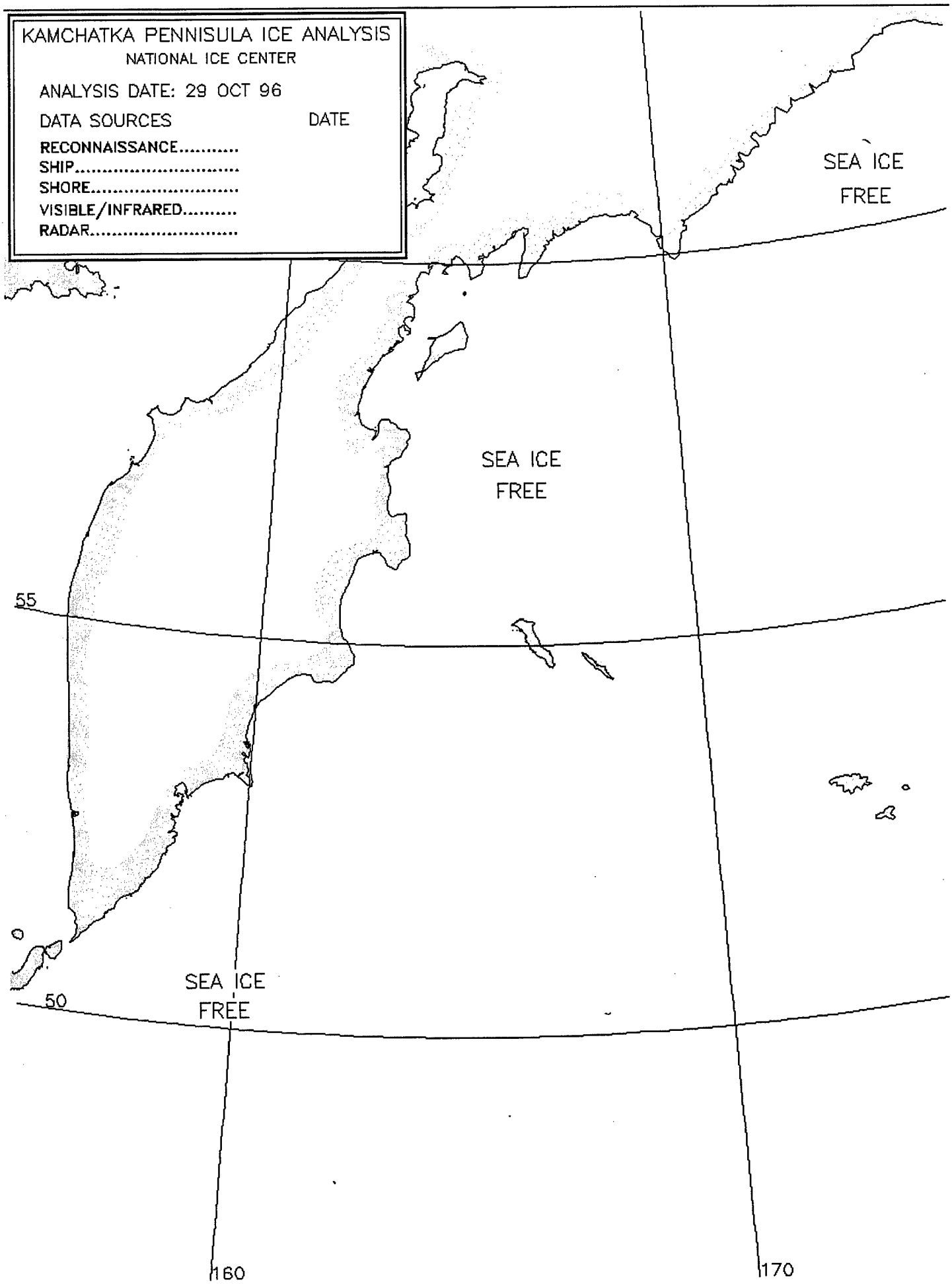
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
SEA ICE FREE
SEA ICE FREE
55
SEA ICE FREE
50
160
170


KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
SEA ICE
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SEA ICE
FREE
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SEA ICE
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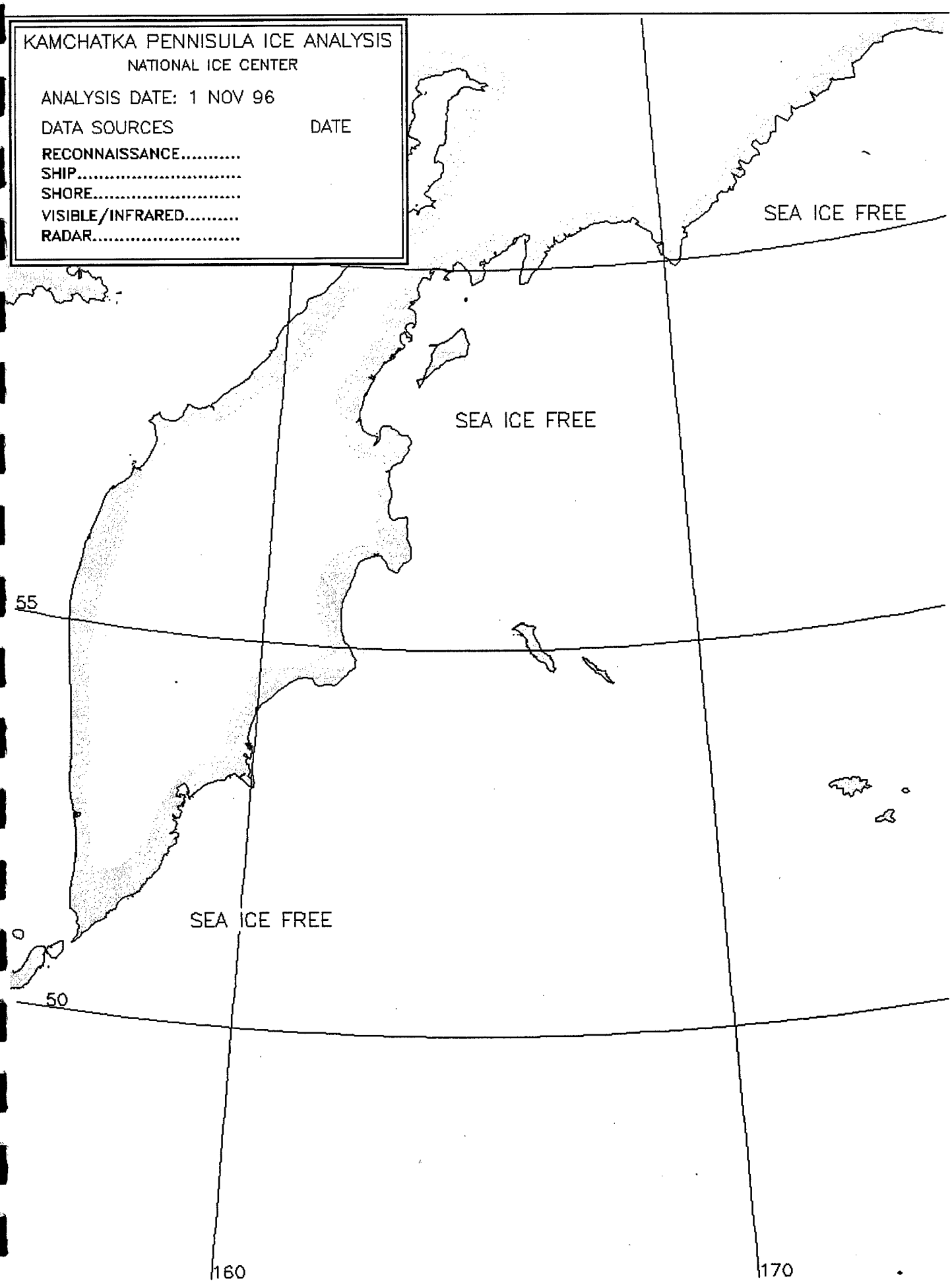
KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 1 NOV 96
DATA SOURCES
DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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SEA ICE FREE
SEA ICE FREE
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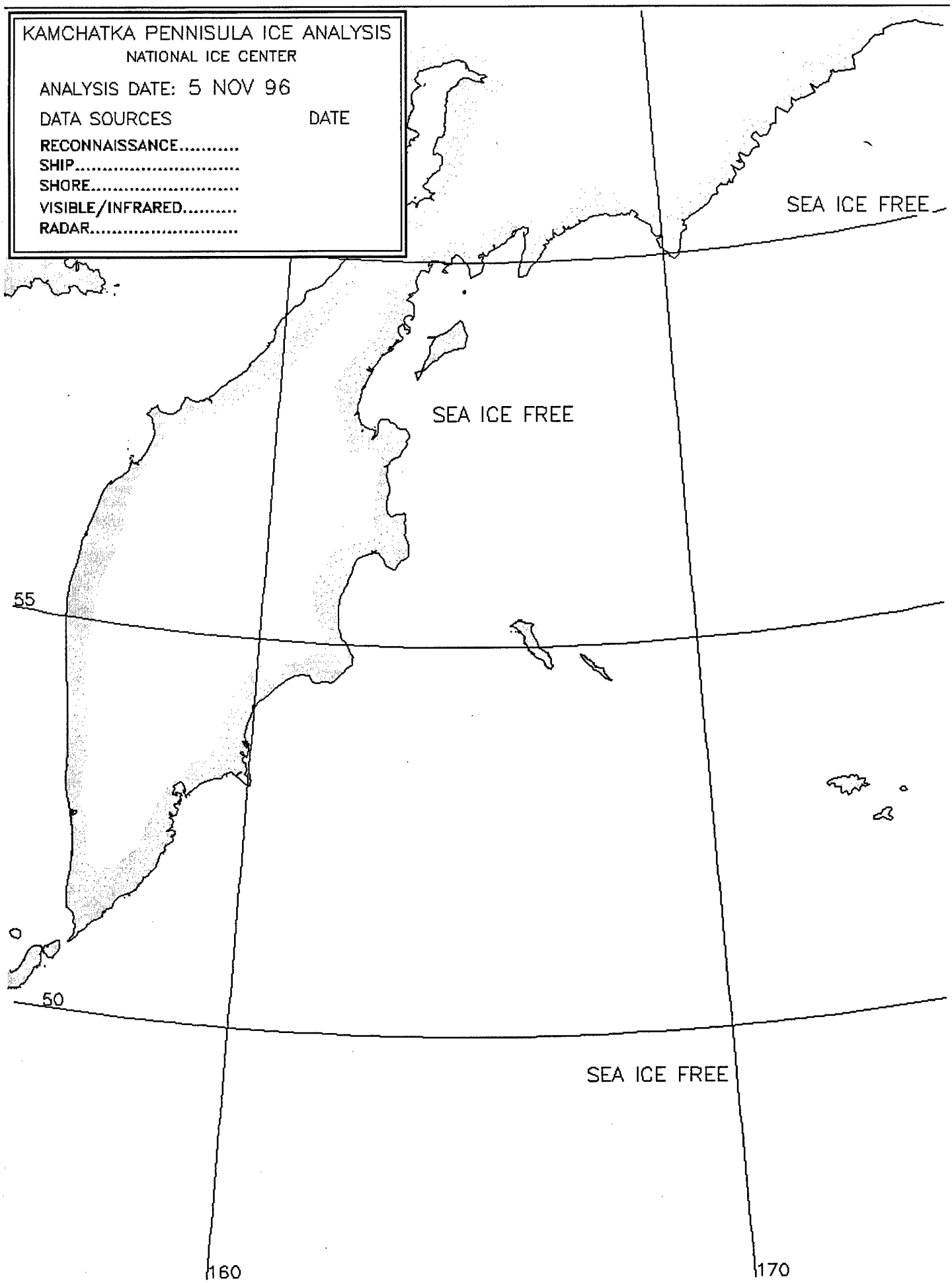
KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 5 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
SEA ICE FREE
SEA ICE FREE
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SEA ICE FREE
160
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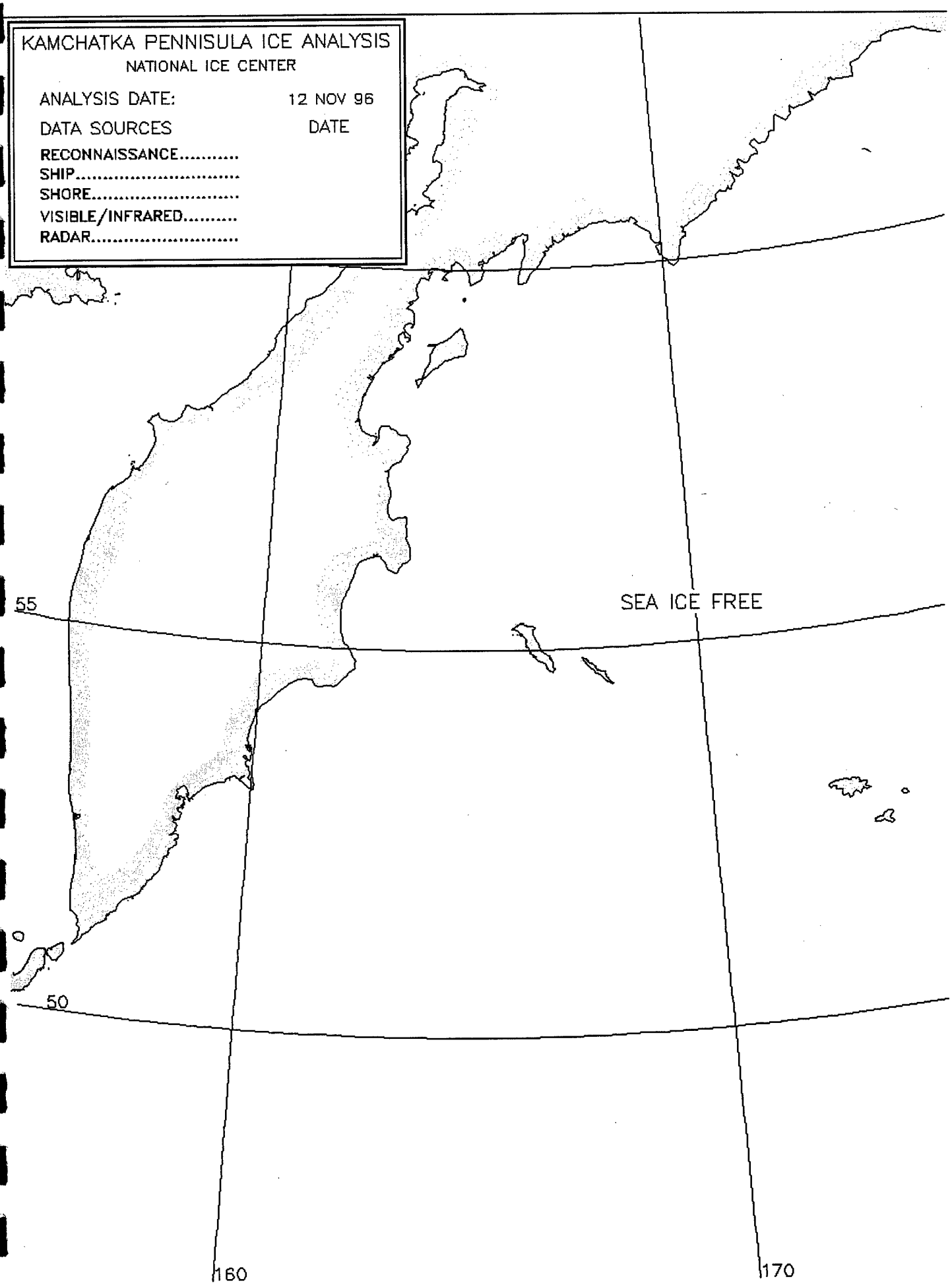
KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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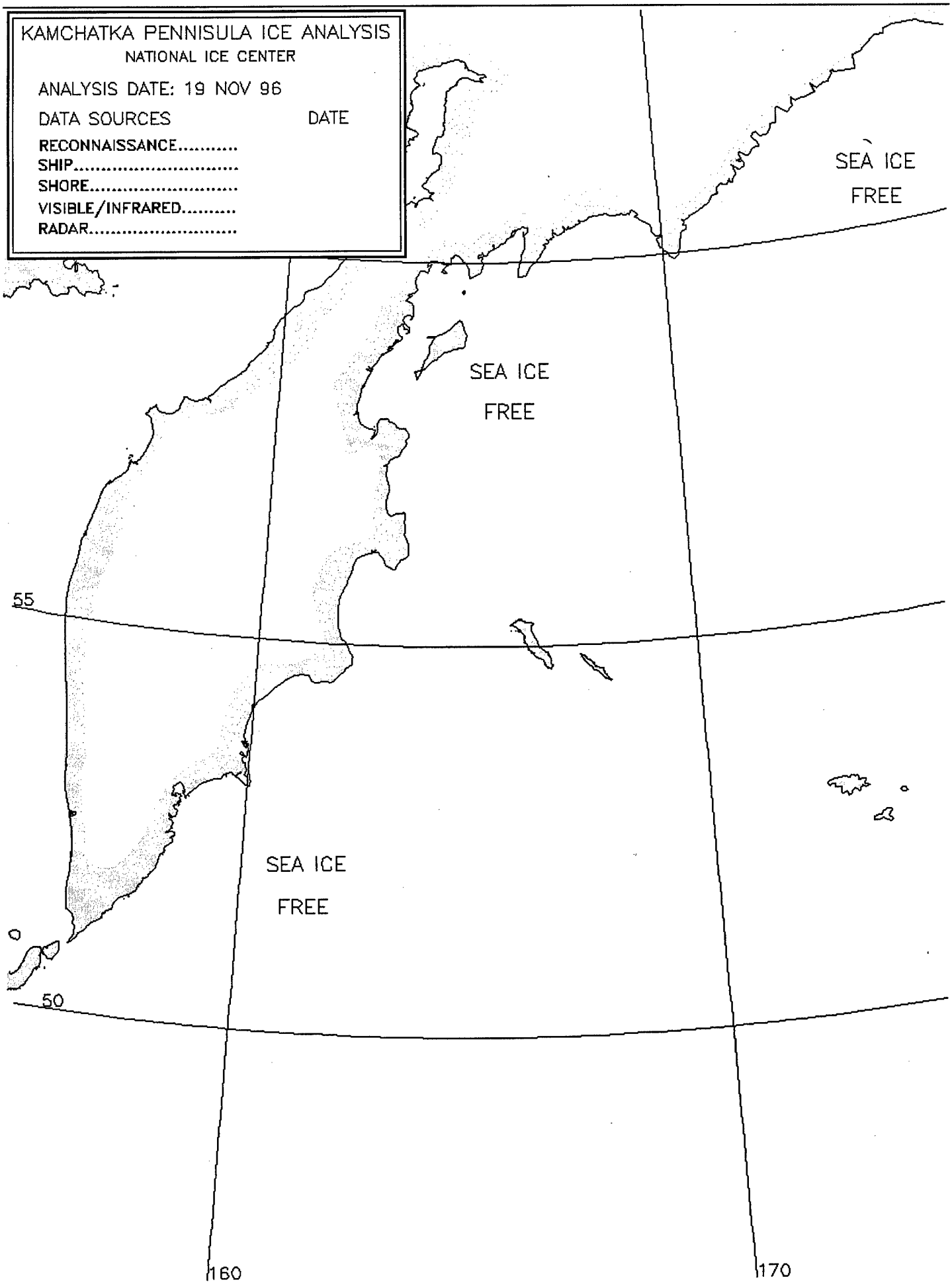
KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
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50
160
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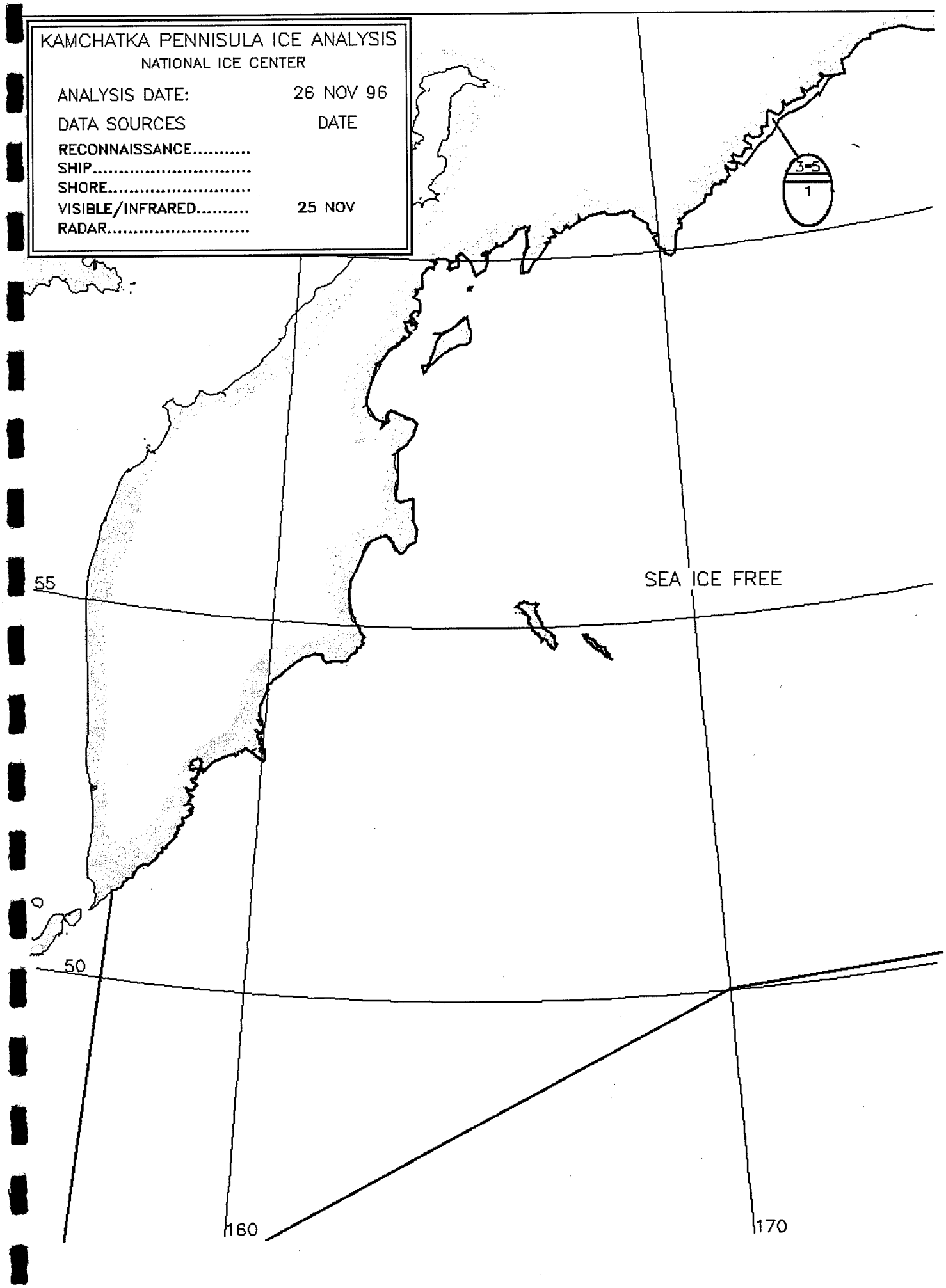
KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 NOV
RADAR.....
3-5
1
SEA ICE FREE
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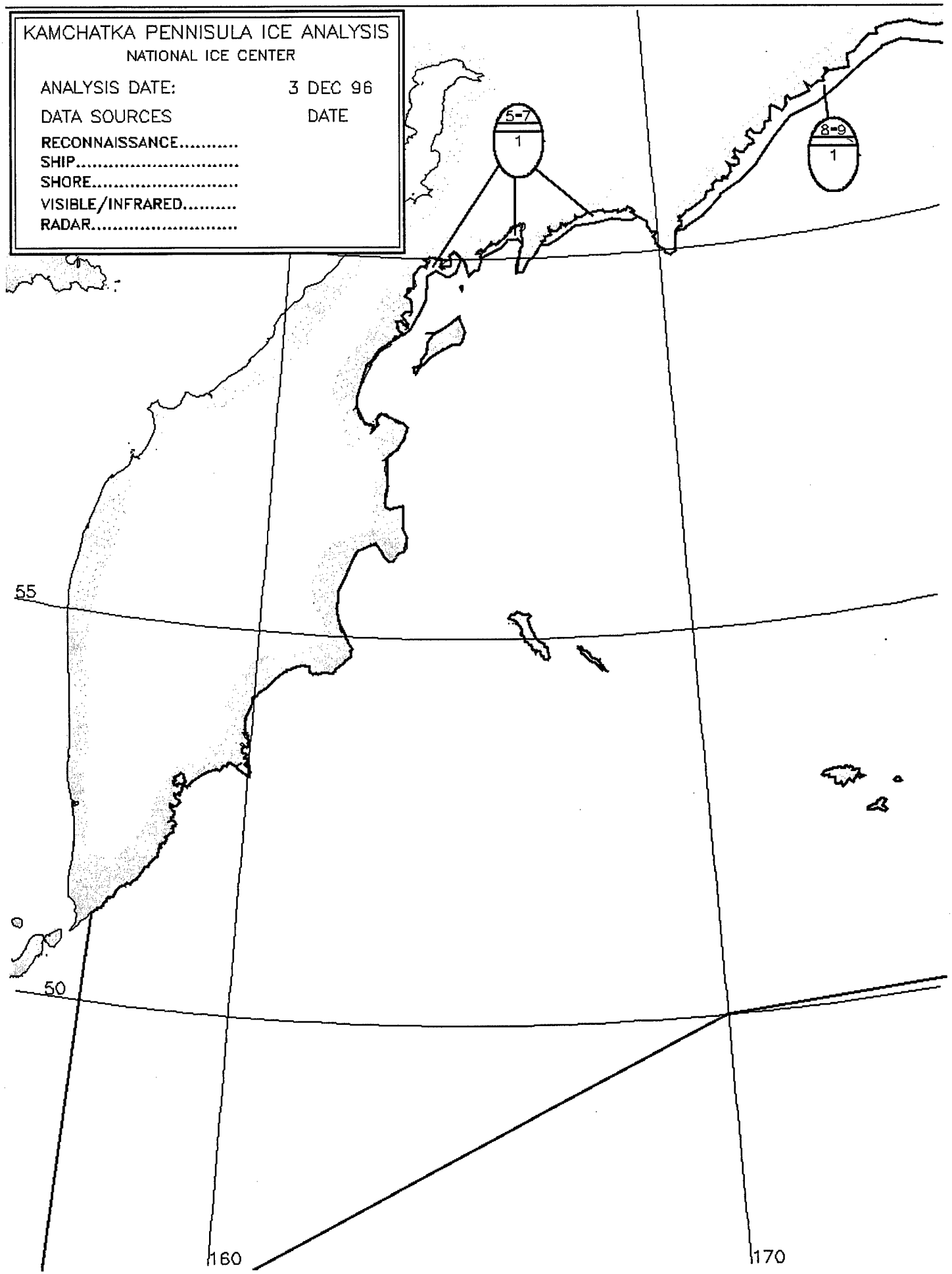
160
170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NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
5-7
1
8-9
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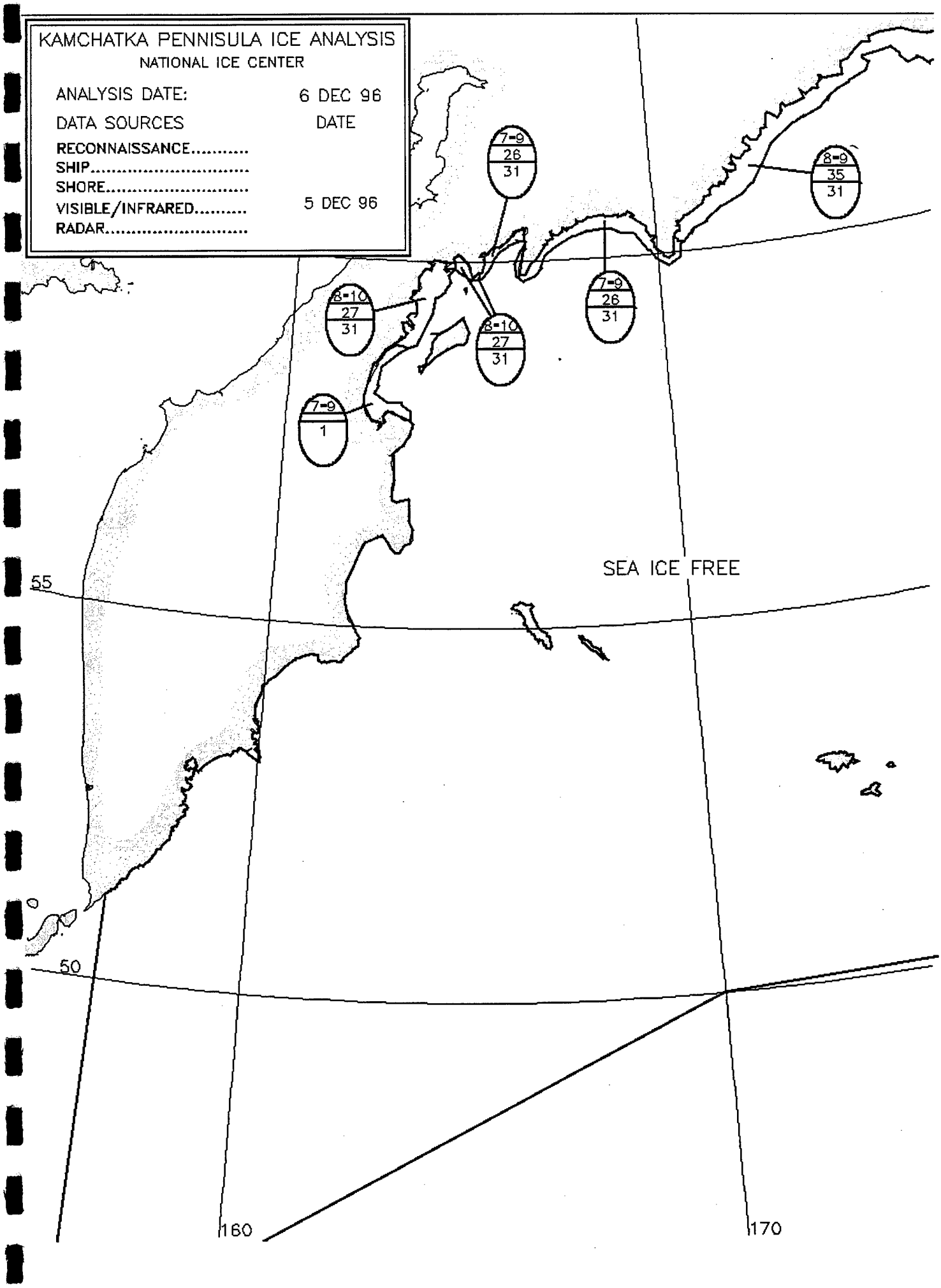
170


KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 6 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 5 DEC 96
RADAR.....
7-9
26
31
8-9
35
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7-9
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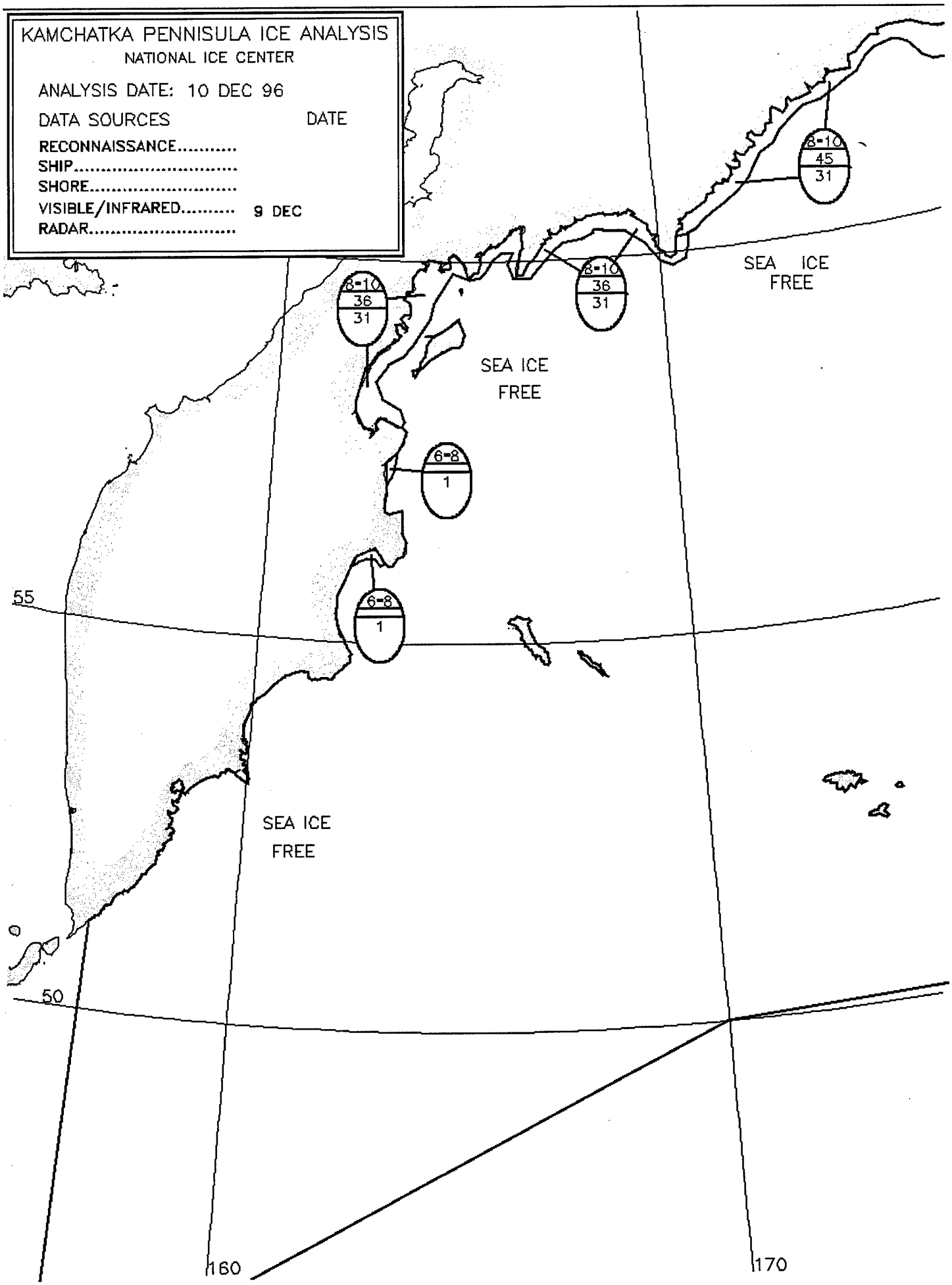
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NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9 DEC
RADAR.....
8-10
45
31
8-10
36
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FREE
SEA ICE
FREE
6-8
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6-8
1
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SEA ICE
FREE
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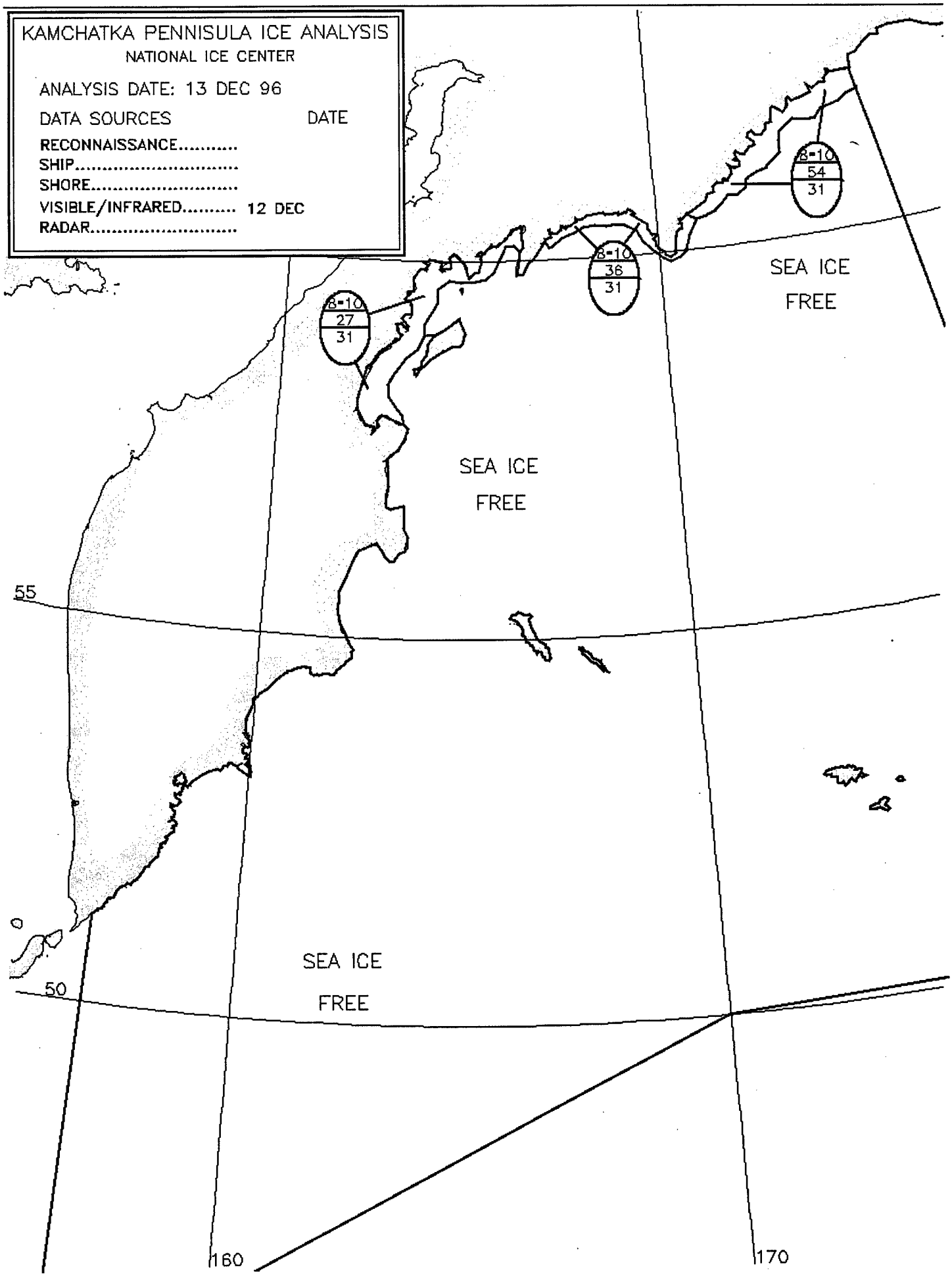
160
170


KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 13 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 12 DEC
RADAR.....
8-10
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8-10
54
31
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
55
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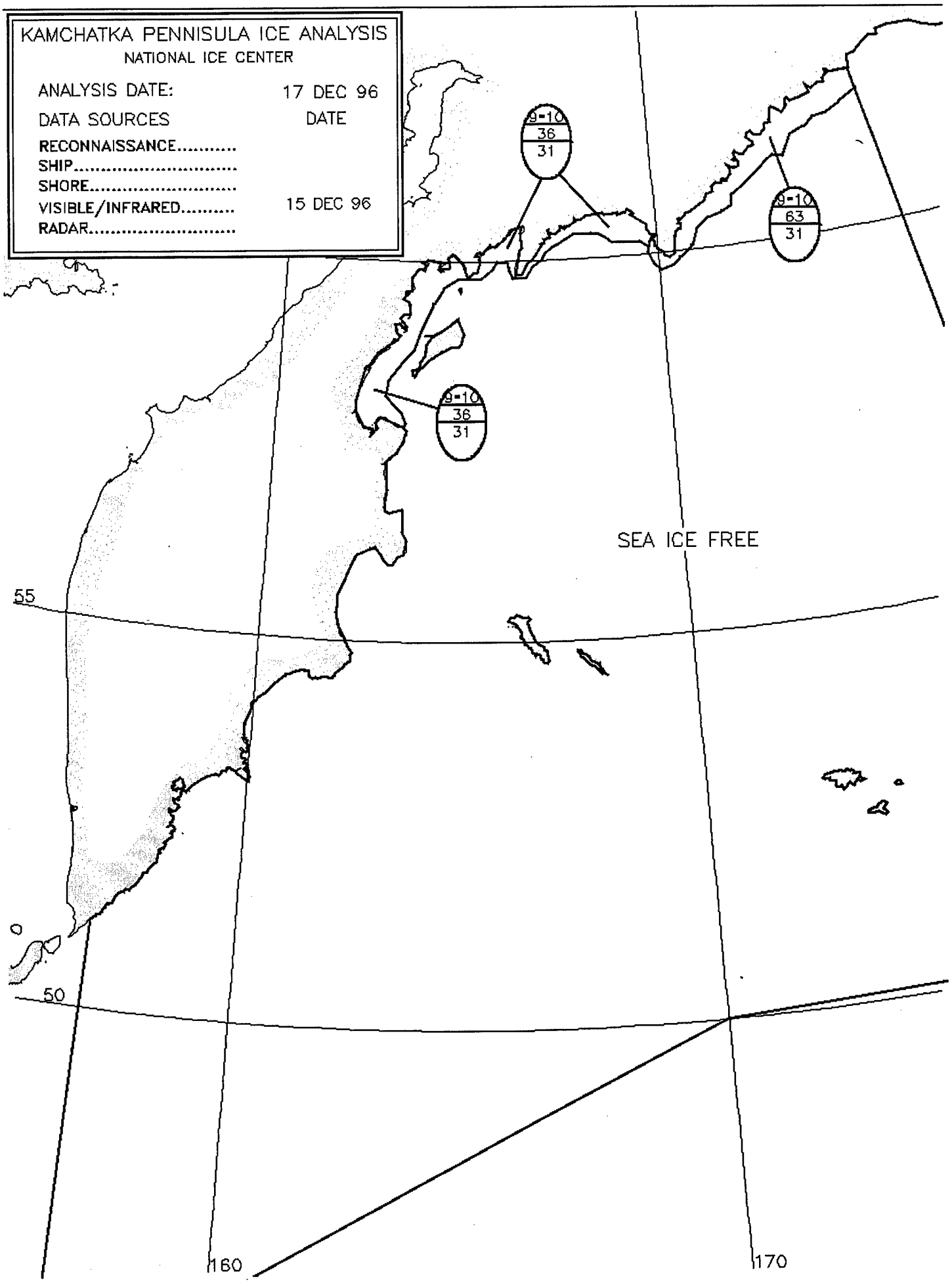
160
170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NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15 DEC 96
RADAR.....
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9-10
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9-10
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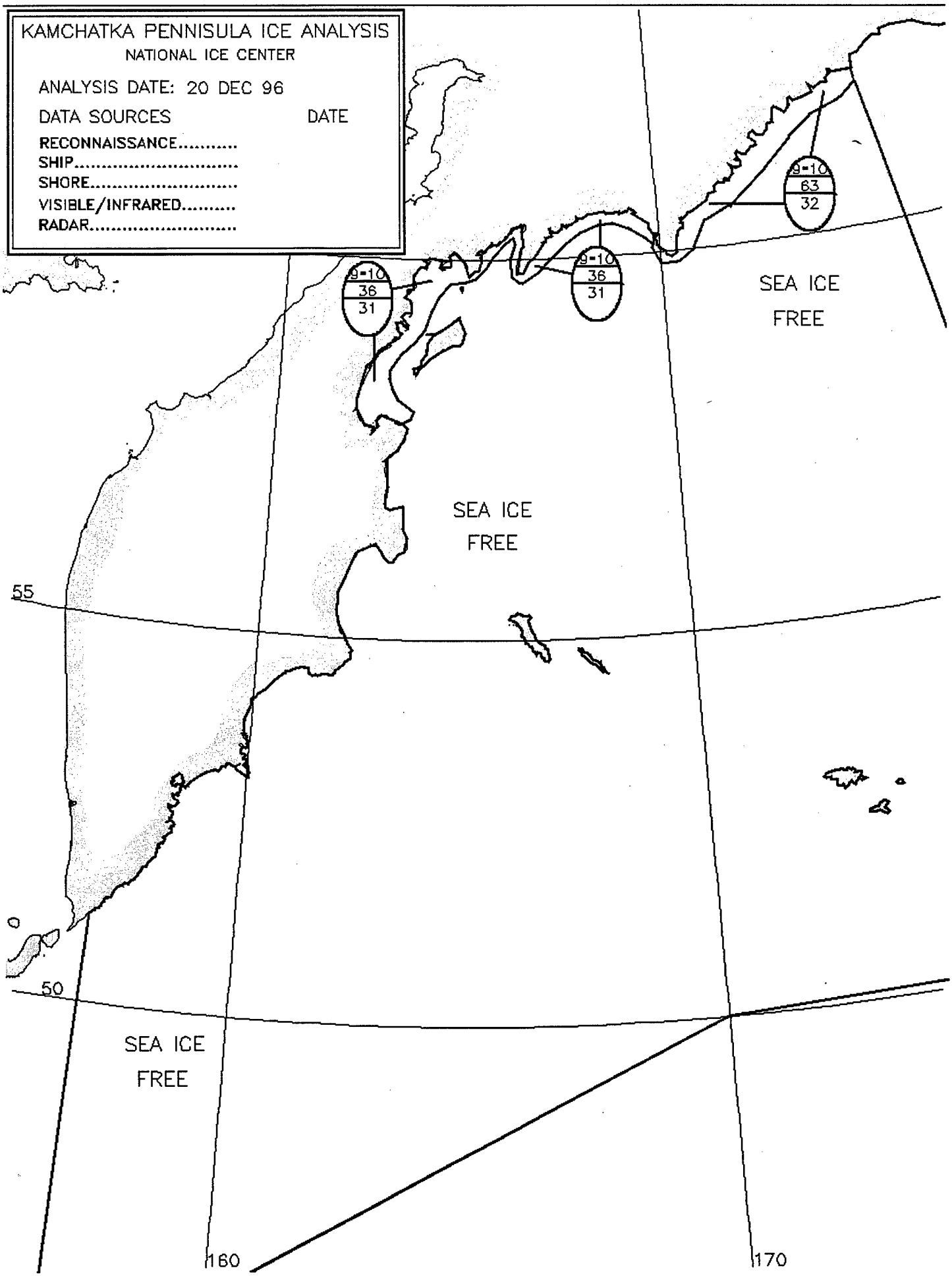
SEA ICE FREE
55
50
160
170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NATIONAL ICE CENTER
ANALYSIS DATE: 20 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
9-10
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9-10
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32
SEA ICE
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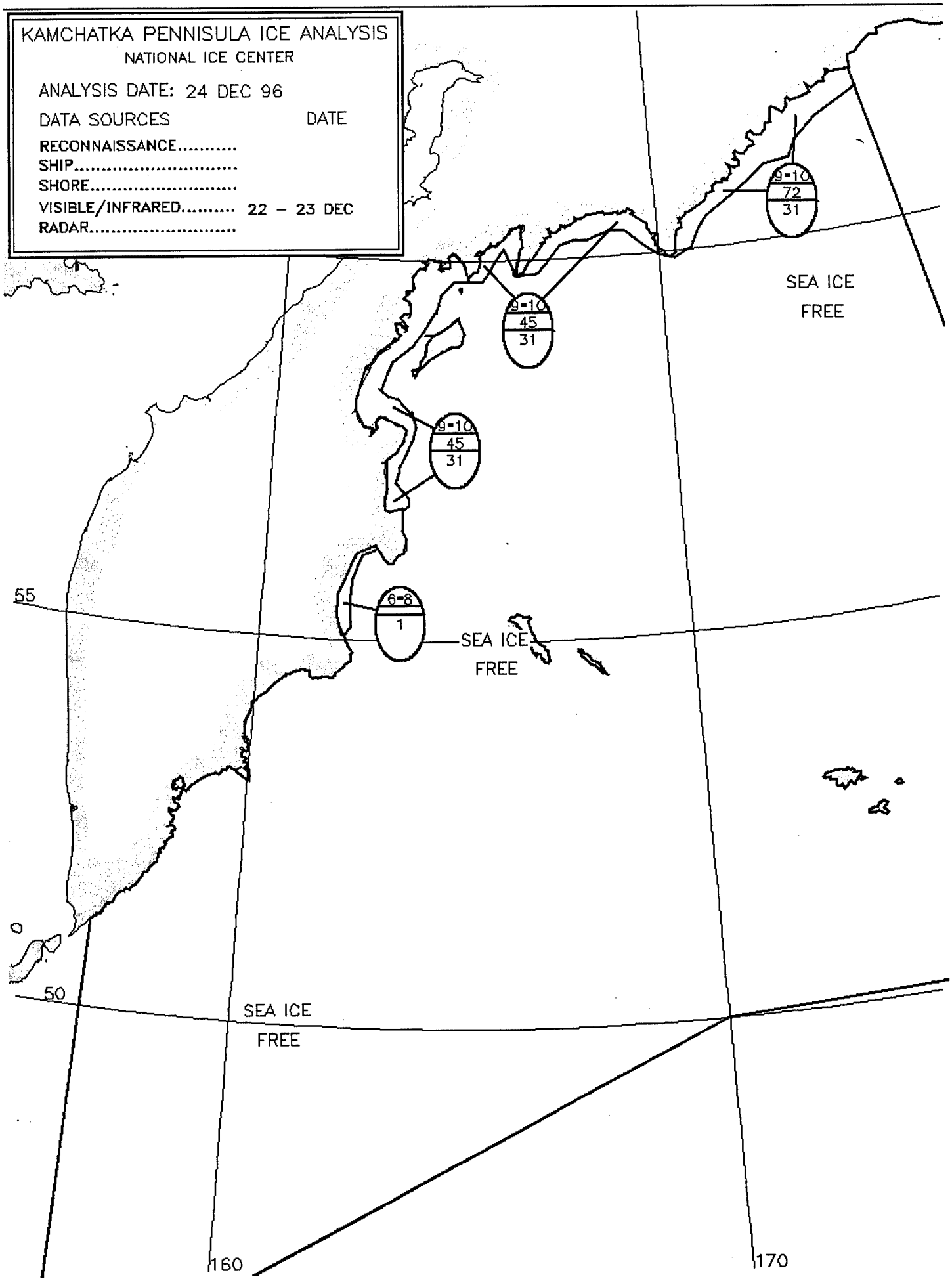
SEA ICE
FREE
SEA ICE
FREE
55
50
160
170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NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 – 23 DEC
RADAR.....
9-10
72
31
9-10
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31
6-8
1
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
55
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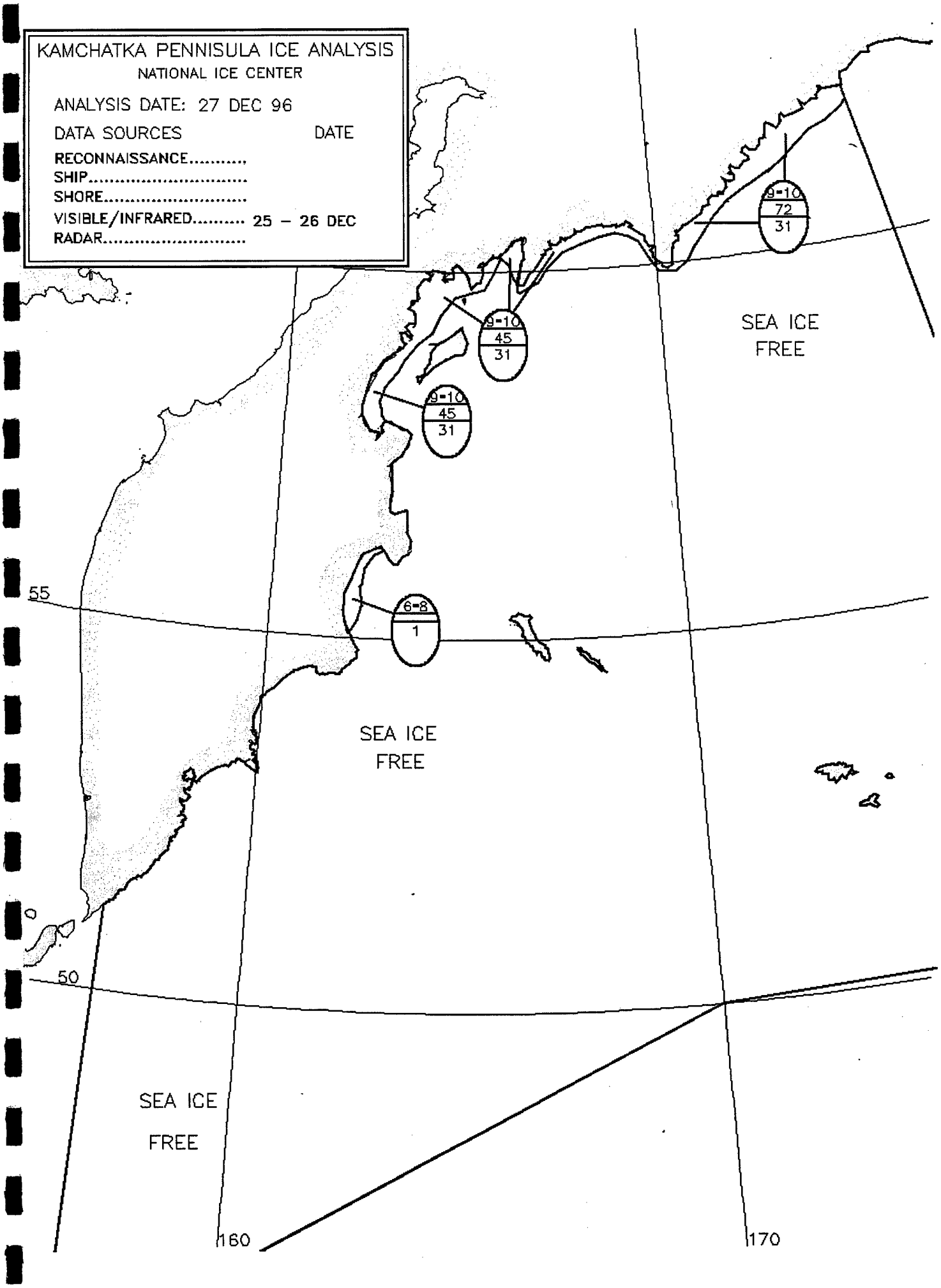
160
170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NATIONAL ICE CENTER
ANALYSIS DATE: 27 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 – 26 DEC
RADAR.....
9-10
72
31
9-10
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6-8
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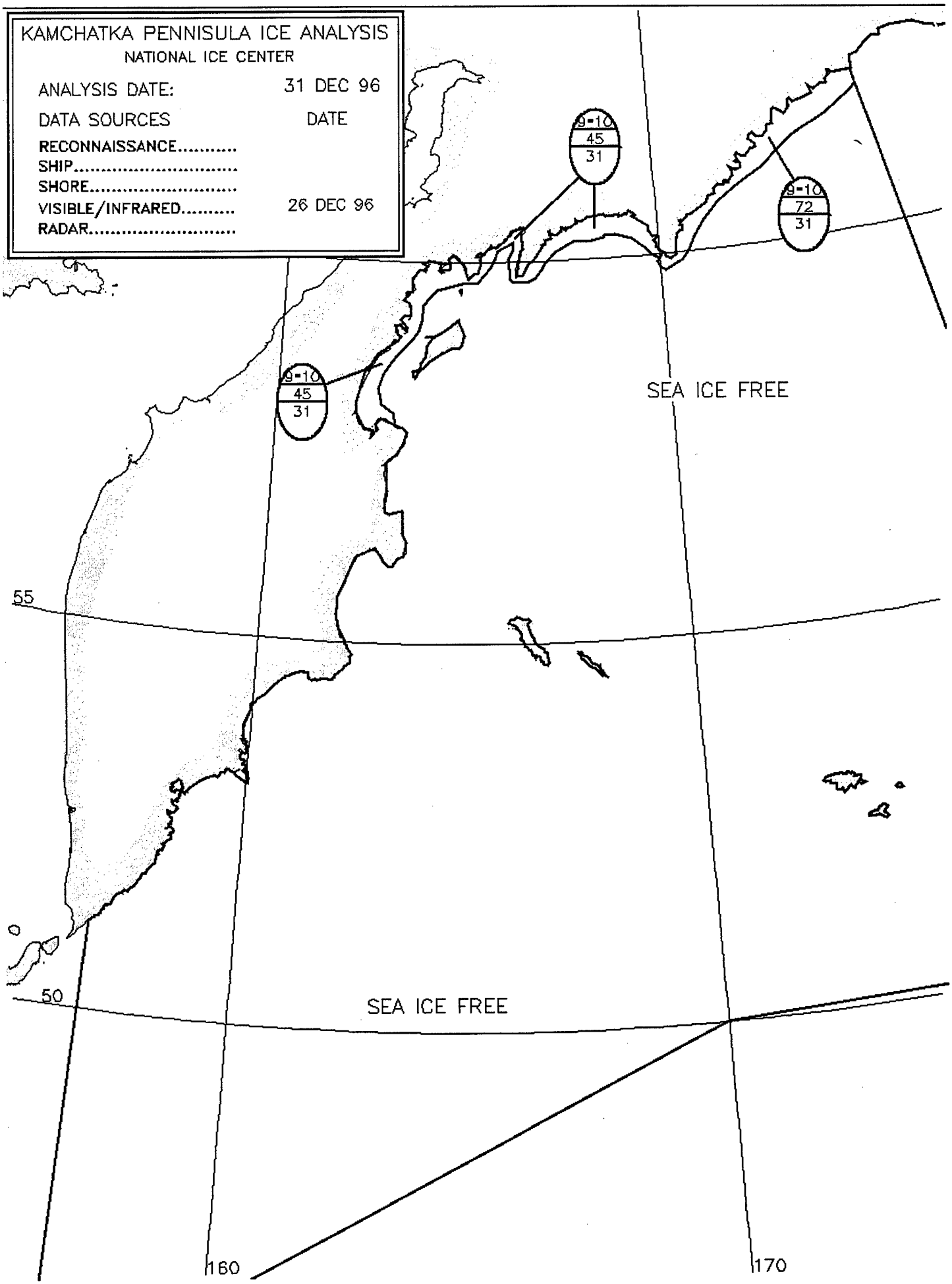
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
55
50
160
170


KAMCHATKA PENNISULA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 26 DEC 96
RADAR.....
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9-10
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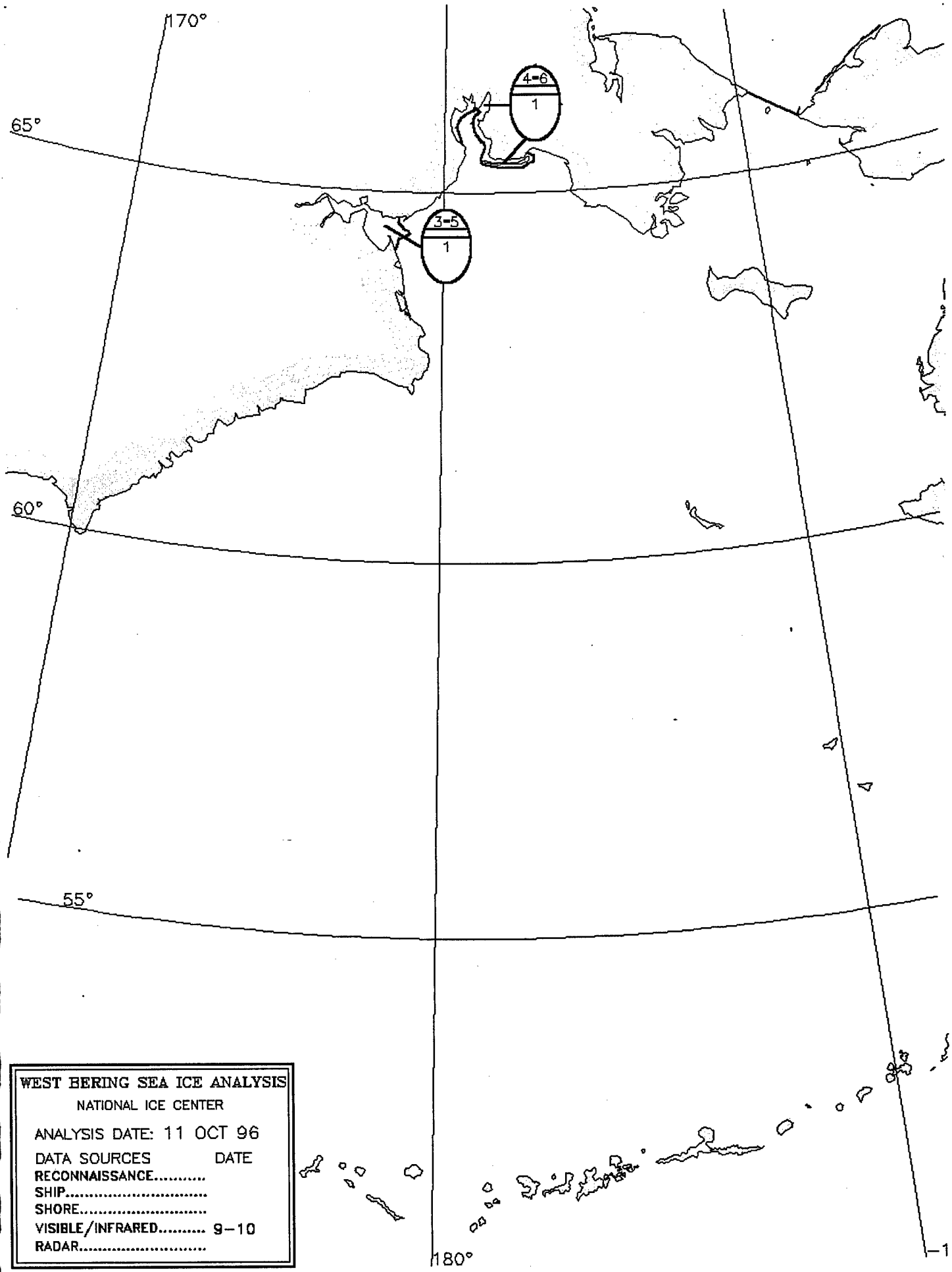
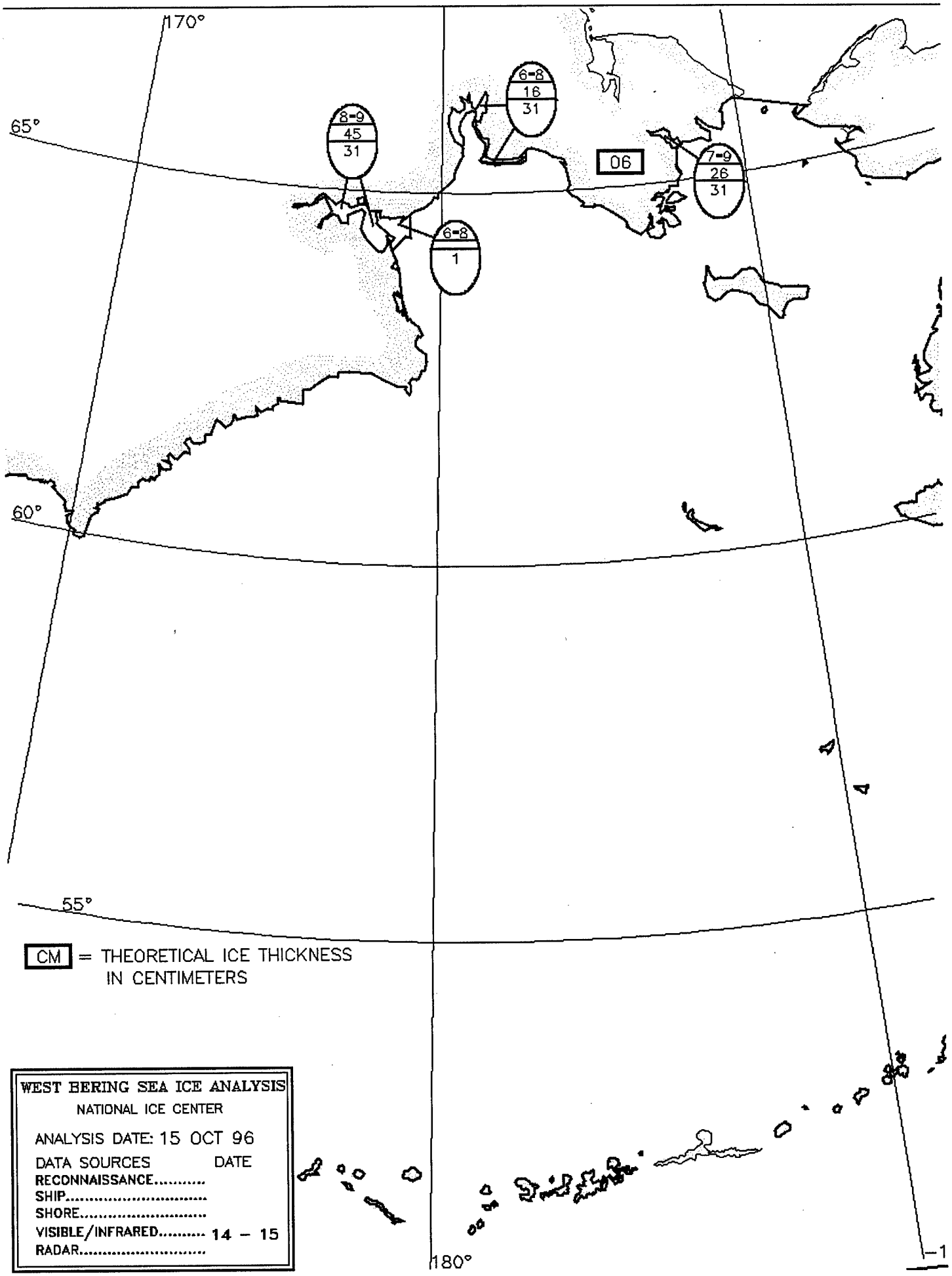
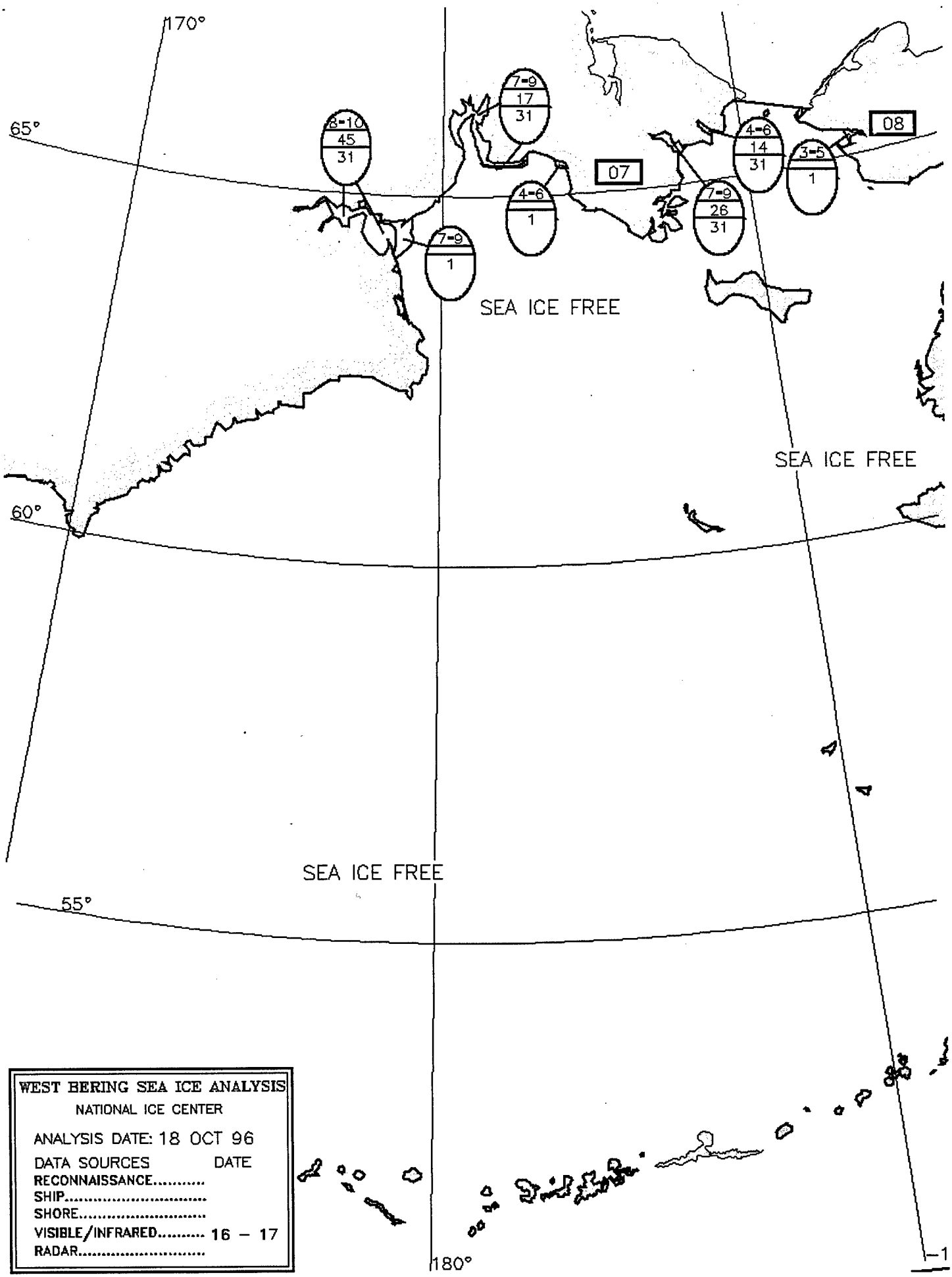
9-10
45
31
SEA ICE FREE
55
50
SEA ICE FREE
160
170


170°
65°
60°
55°
180°
4-6
1
3-5
1
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 11 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9-10
RADAR.....


170°
65°
60°
55°
180°
8-9
45
31
6-8
16
31
06
7-9
26
31
6-8
1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 14 – 15
RADAR.....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60°
55°
180°
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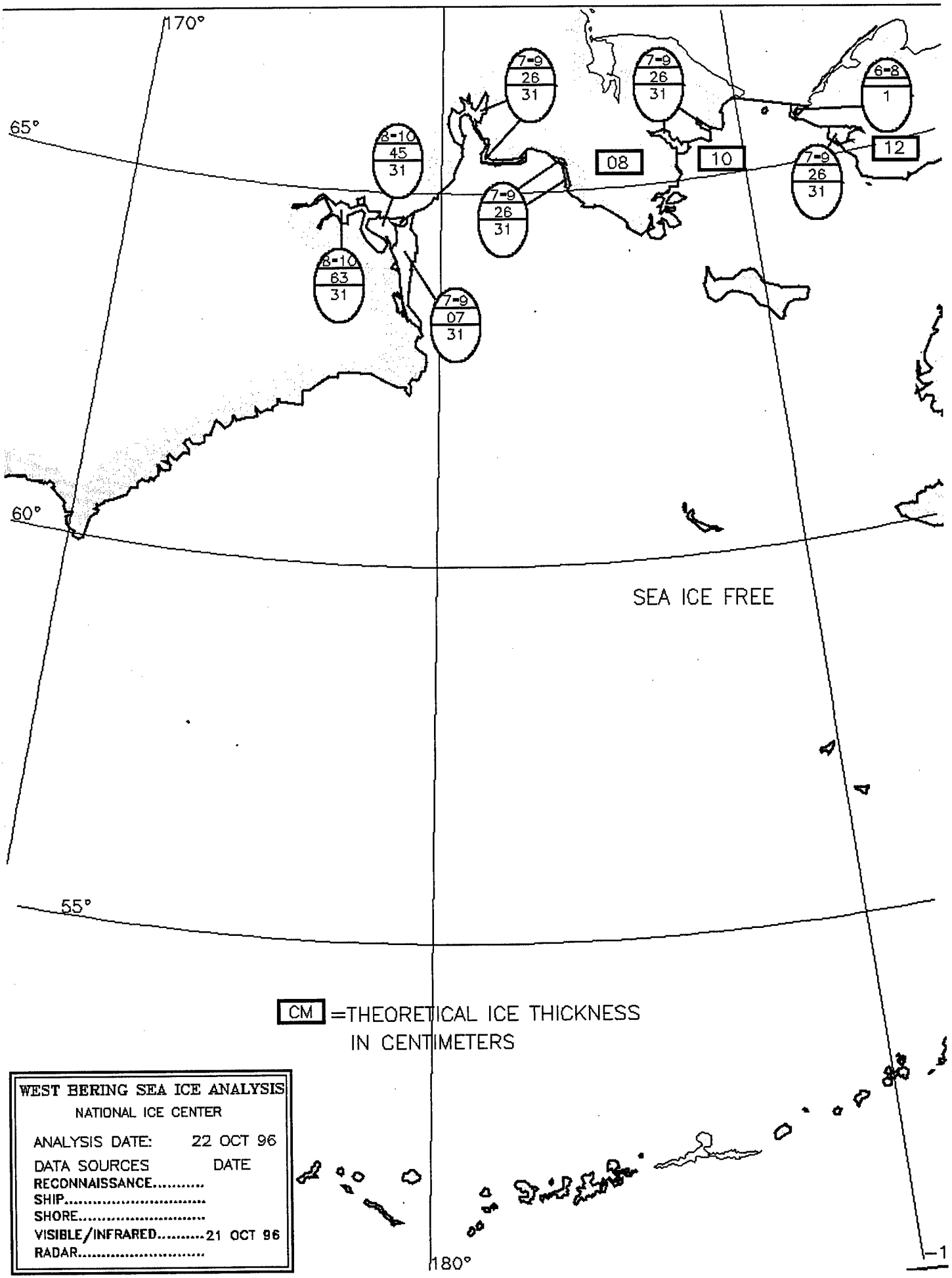
4-6
1
07
7-9
26
31
4-6
14
31
3-5
1
08
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 18 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16 – 17
RADAR.....


170°
65°
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7-9
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8-10
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12
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31
7-9
26
31
8-10
63
31
7-9
07
31
SEA ICE FREE
CM =THEORETICAL ICE THICKNESS
IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....21 OCT 96
RADAR.....
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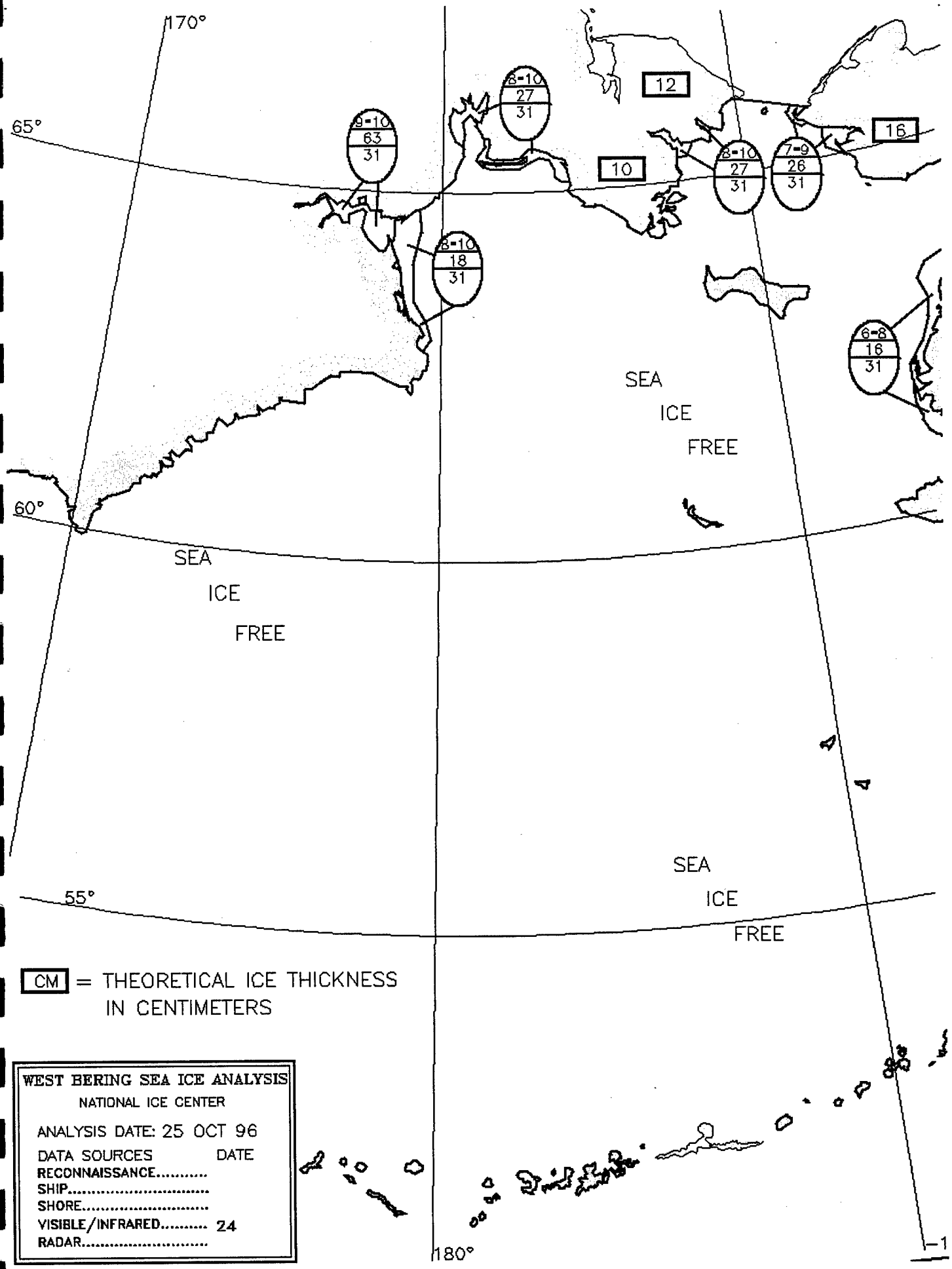
170°
65°
60°
55°
180°
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31
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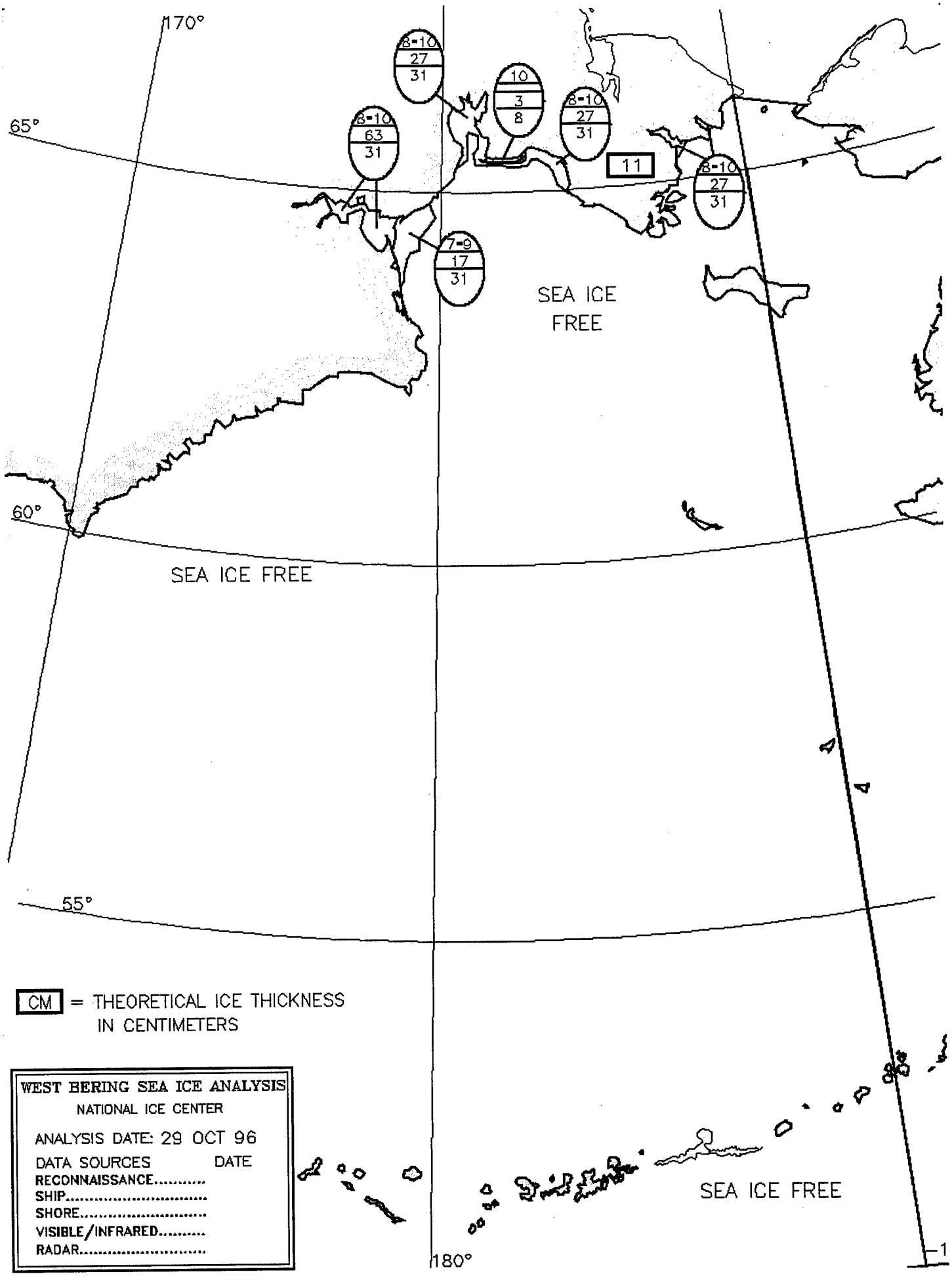
26
31
16
6-8
16
31
SEA
ICE
FREE
SEA
ICE
FREE
SEA
ICE
FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 25 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 24
RADAR.....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27
31
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3
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27
31
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63
31
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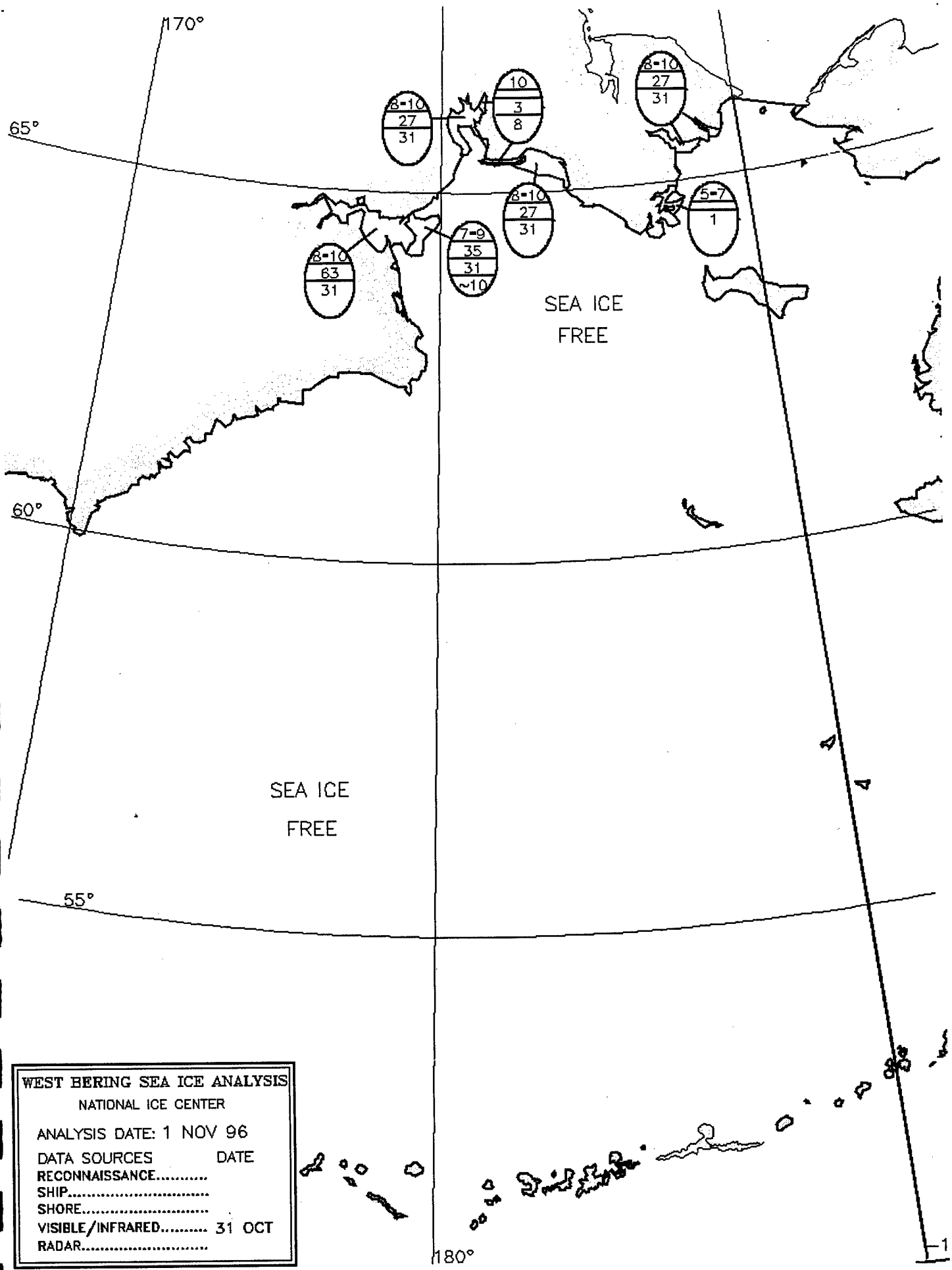
27
31
7-9
17
31
SEA ICE
FREE
SEA ICE FREE
SEA ICE FREE
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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3
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8-10
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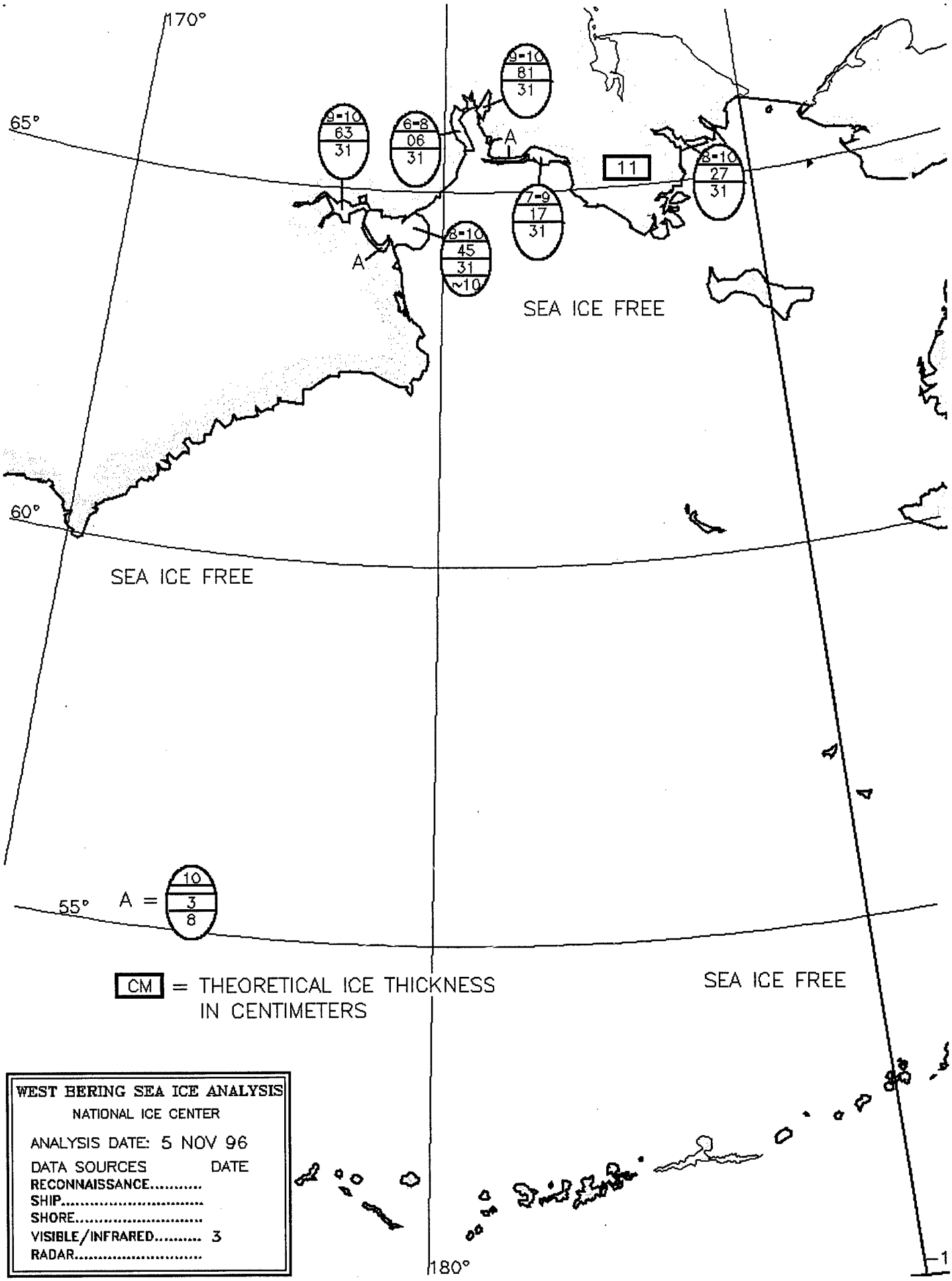
31
8-10
27
31
5-7
1
8-10
63
31
7-9
35
31
~10
SEA ICE
FREE
SEA ICE
FREE
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 1 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 31 OCT
RADAR.....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A
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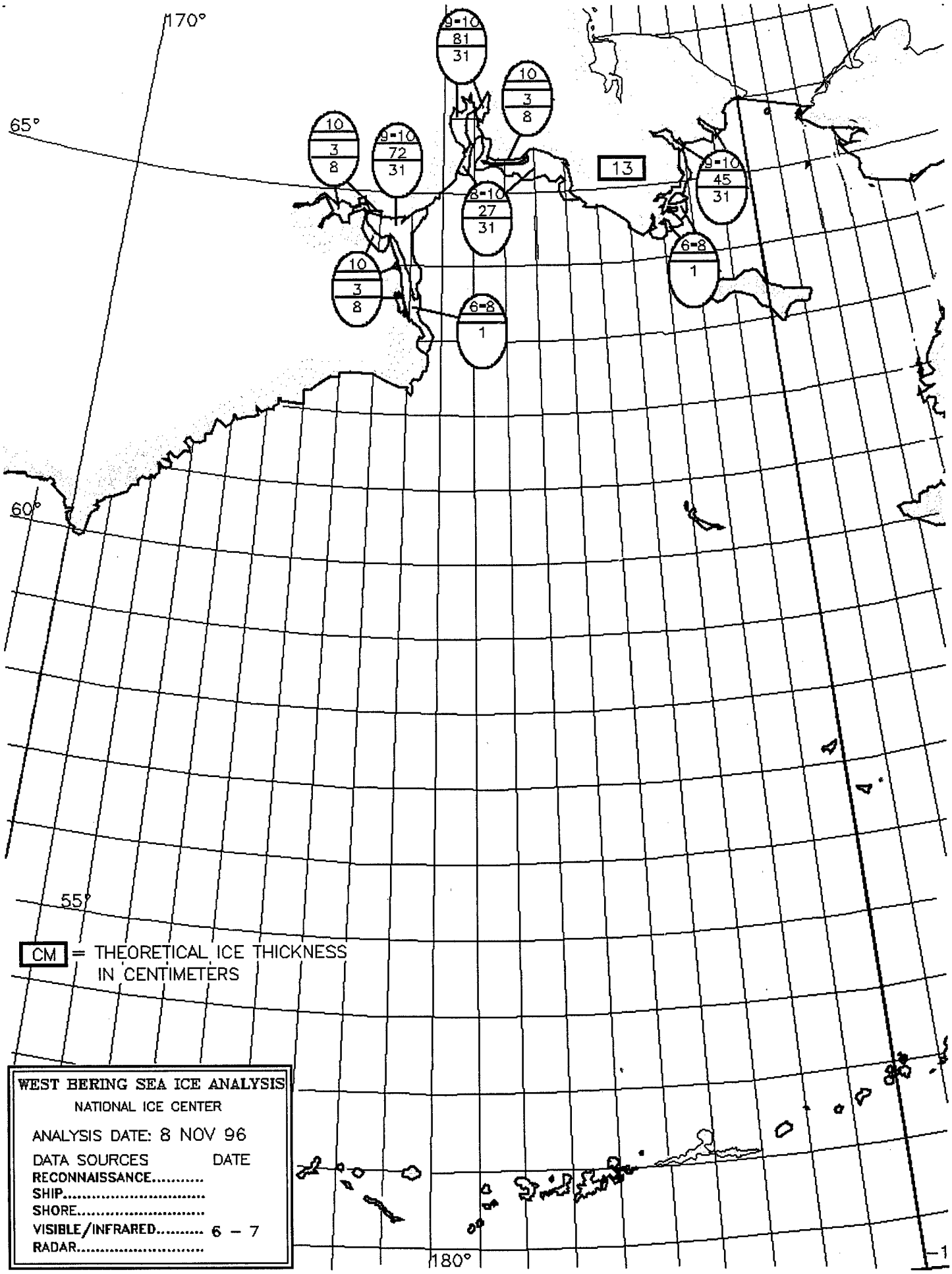
8-10
27
31
7-9
17
31
8-10
45
31
~10
A
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
A = 10 / 3 / 8
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 5 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 3
RADAR.....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72
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9-10
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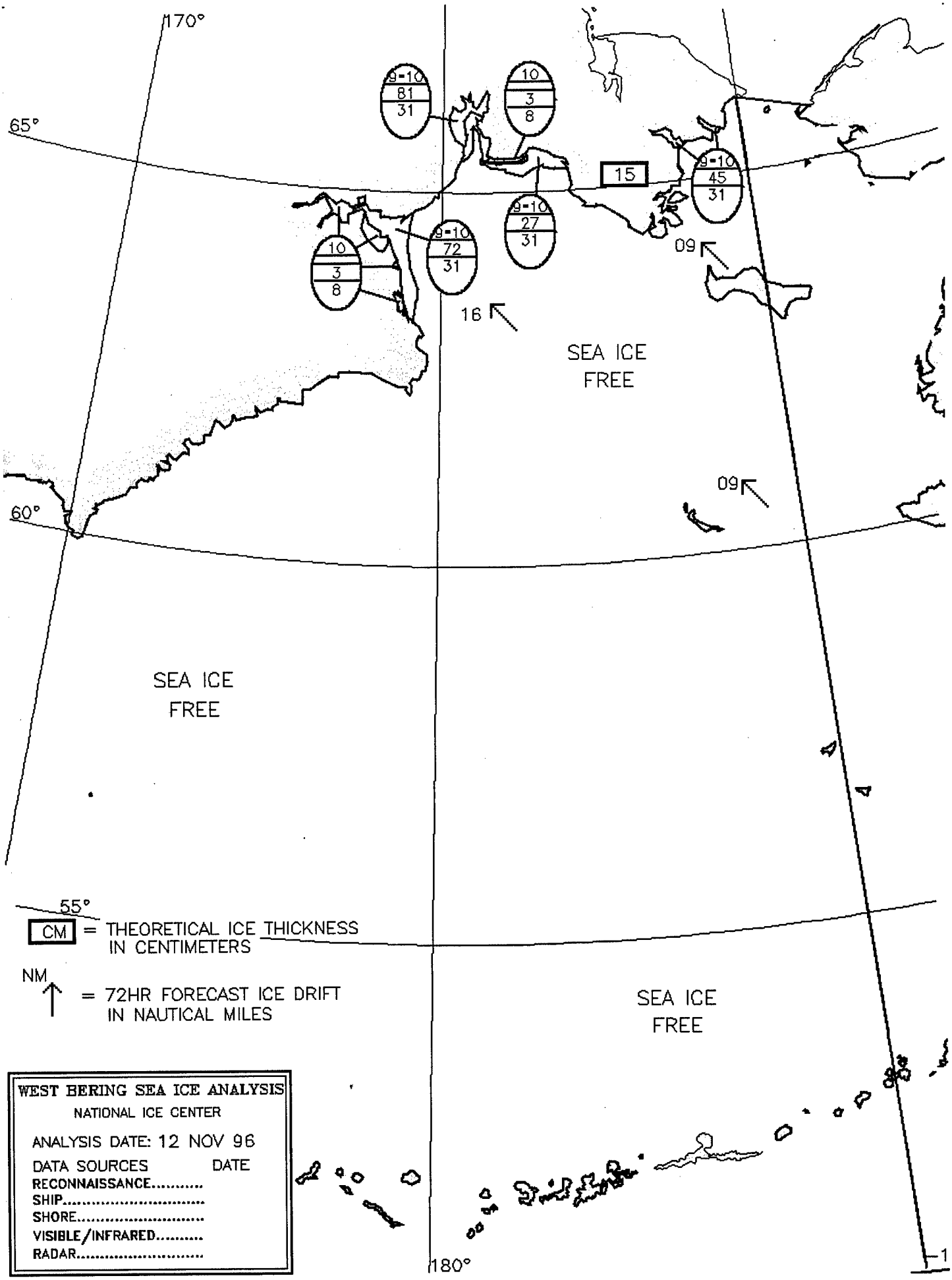
31
8-10
27
31
6-8
1
10
3
8
6-8
1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 8 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 6 – 7
RADAR.....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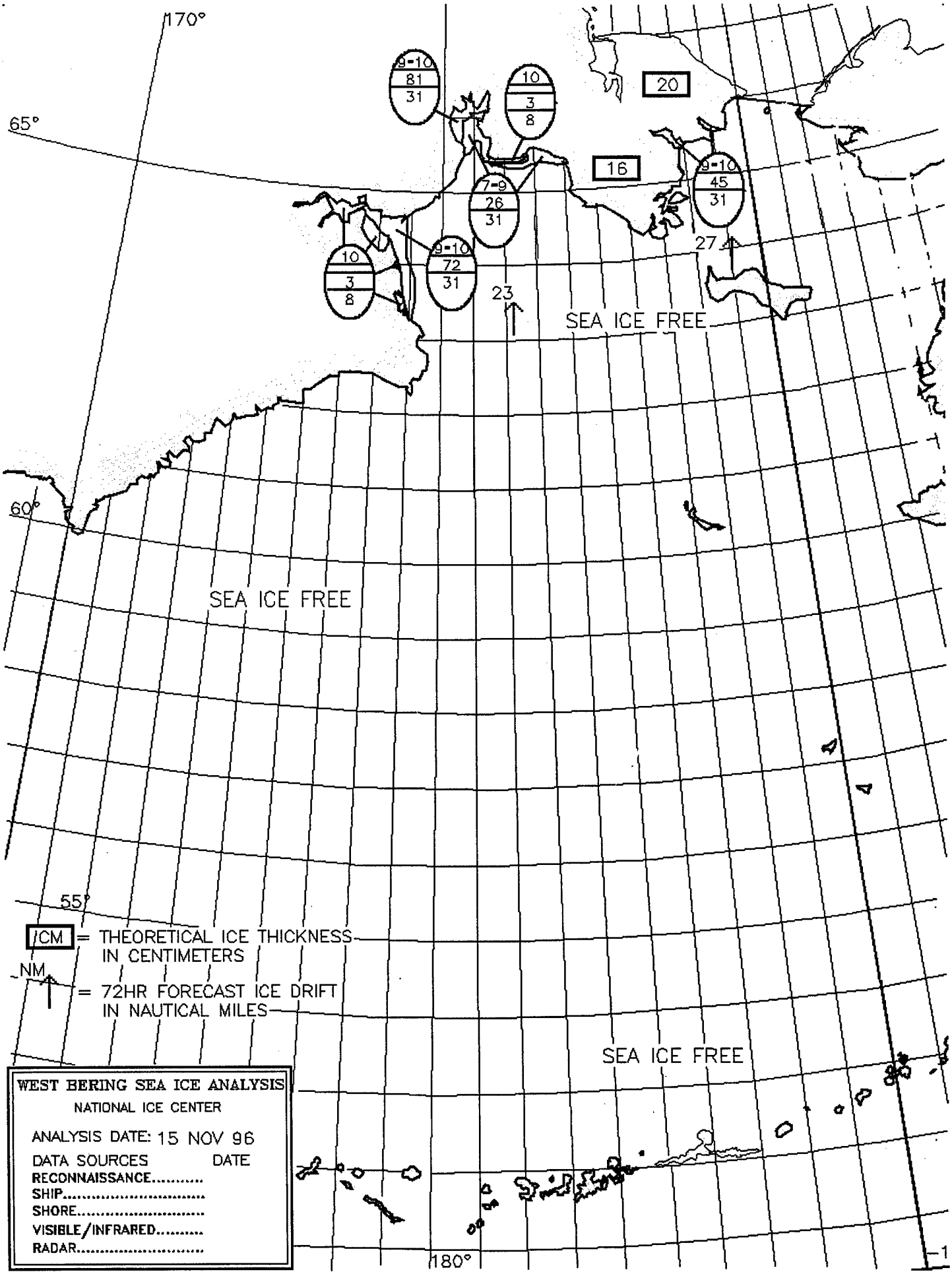
9-10
27
31
9-10
72
31
10
3
8
09
16
09
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM
= 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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45
31
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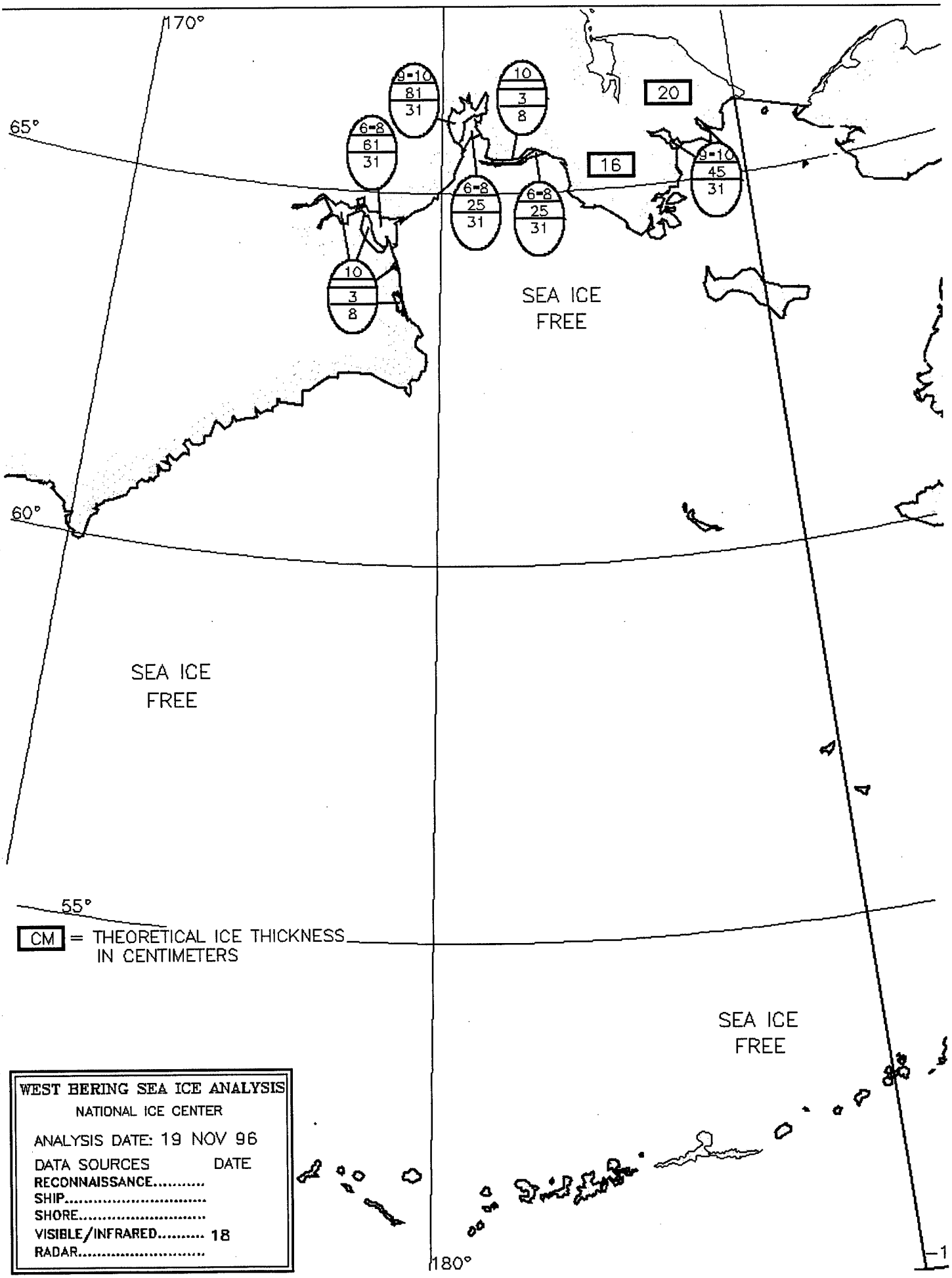
10
3
8
9-10
72
31
23
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
/CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM
= 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


170°
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81
31
6-8
61
31
10
3
8
6-8
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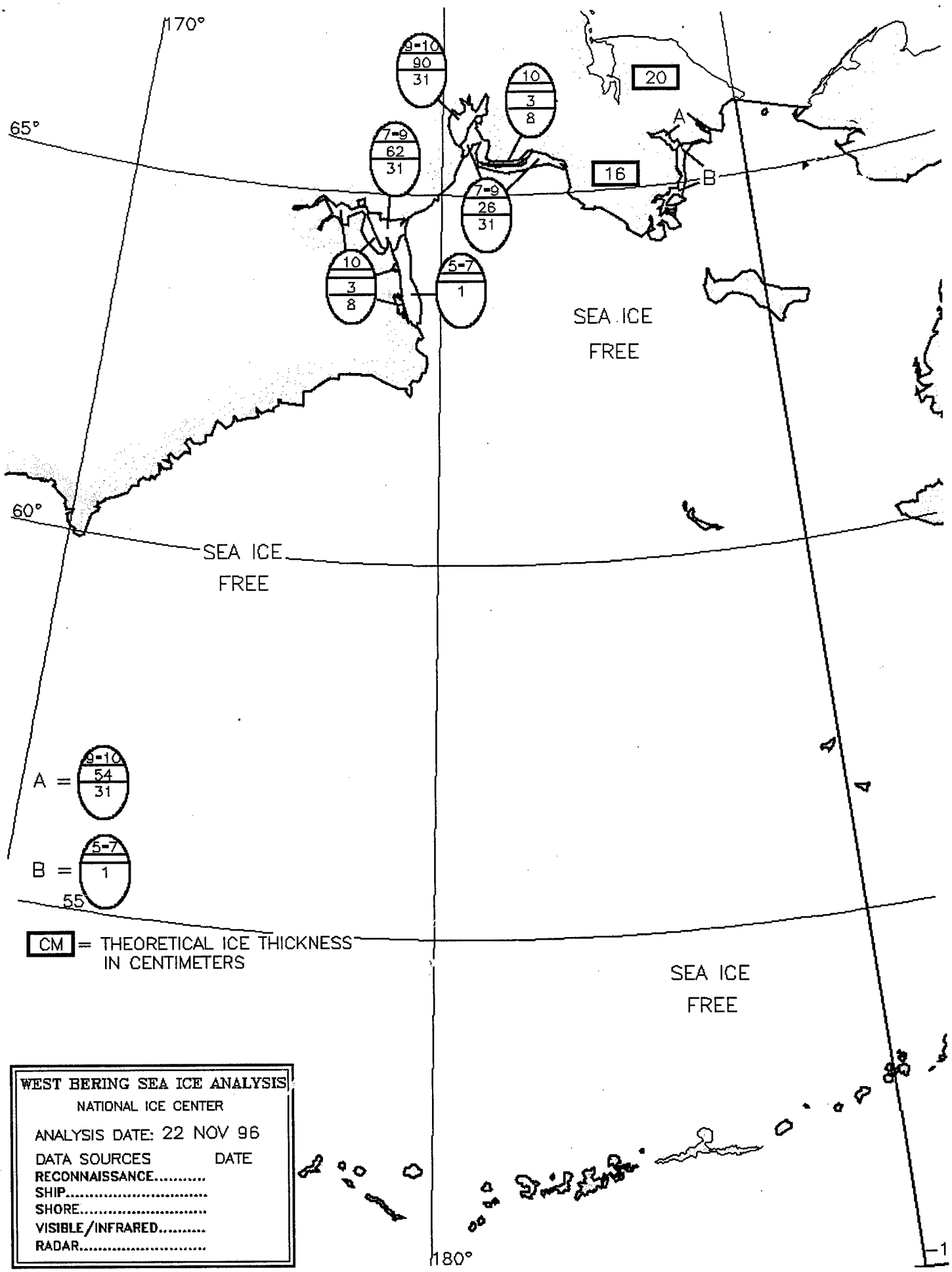
31
6-8
25
31
20
16
9-10
45
31
10
3
8
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 18
RADAR.....


170°
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31
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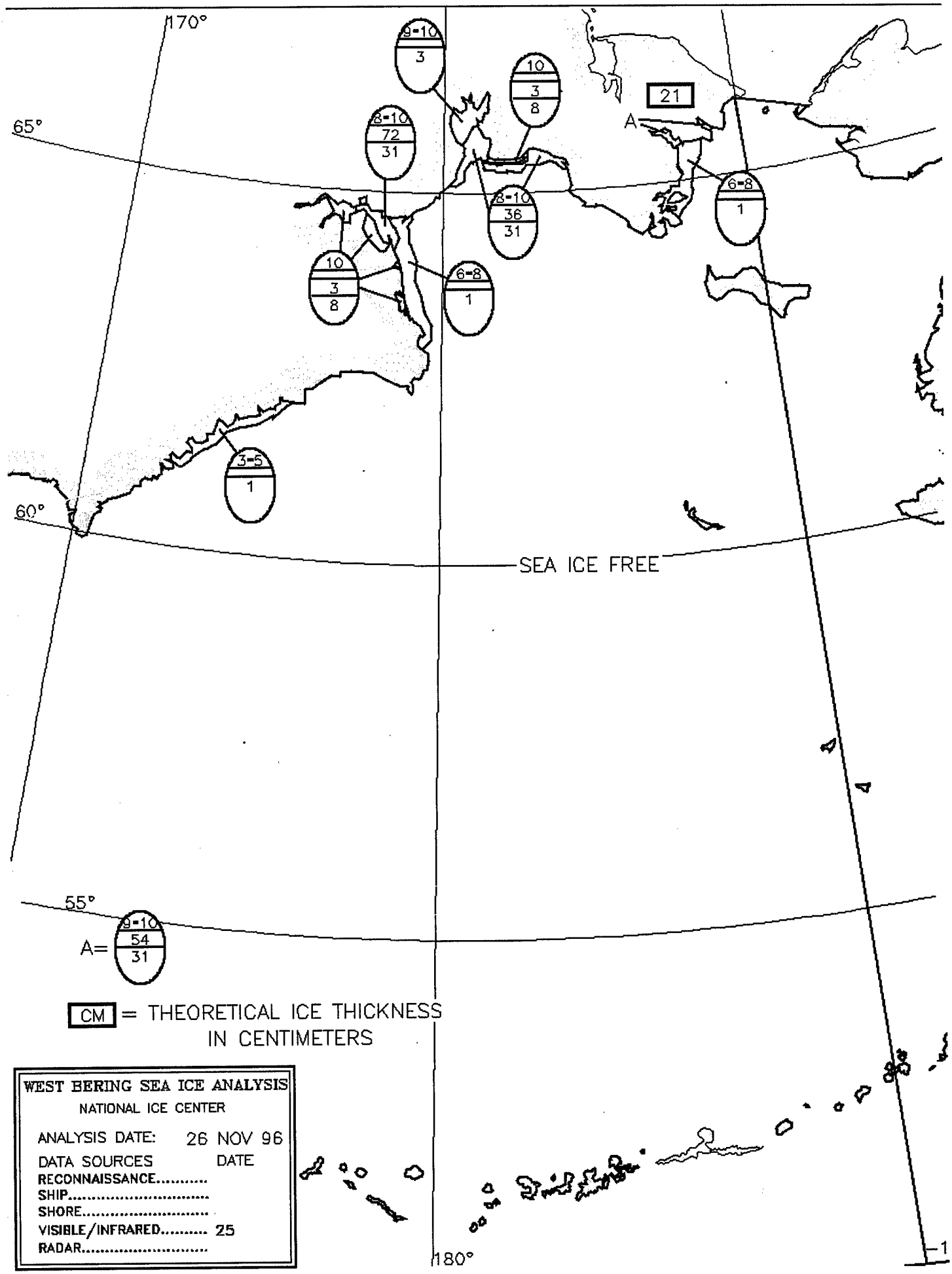
7-9
62
31
7-9
26
31
10
3
8
5-7
1
20
16
A
B
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
A = 9-10 / 54 / 31
B = 5-7 / 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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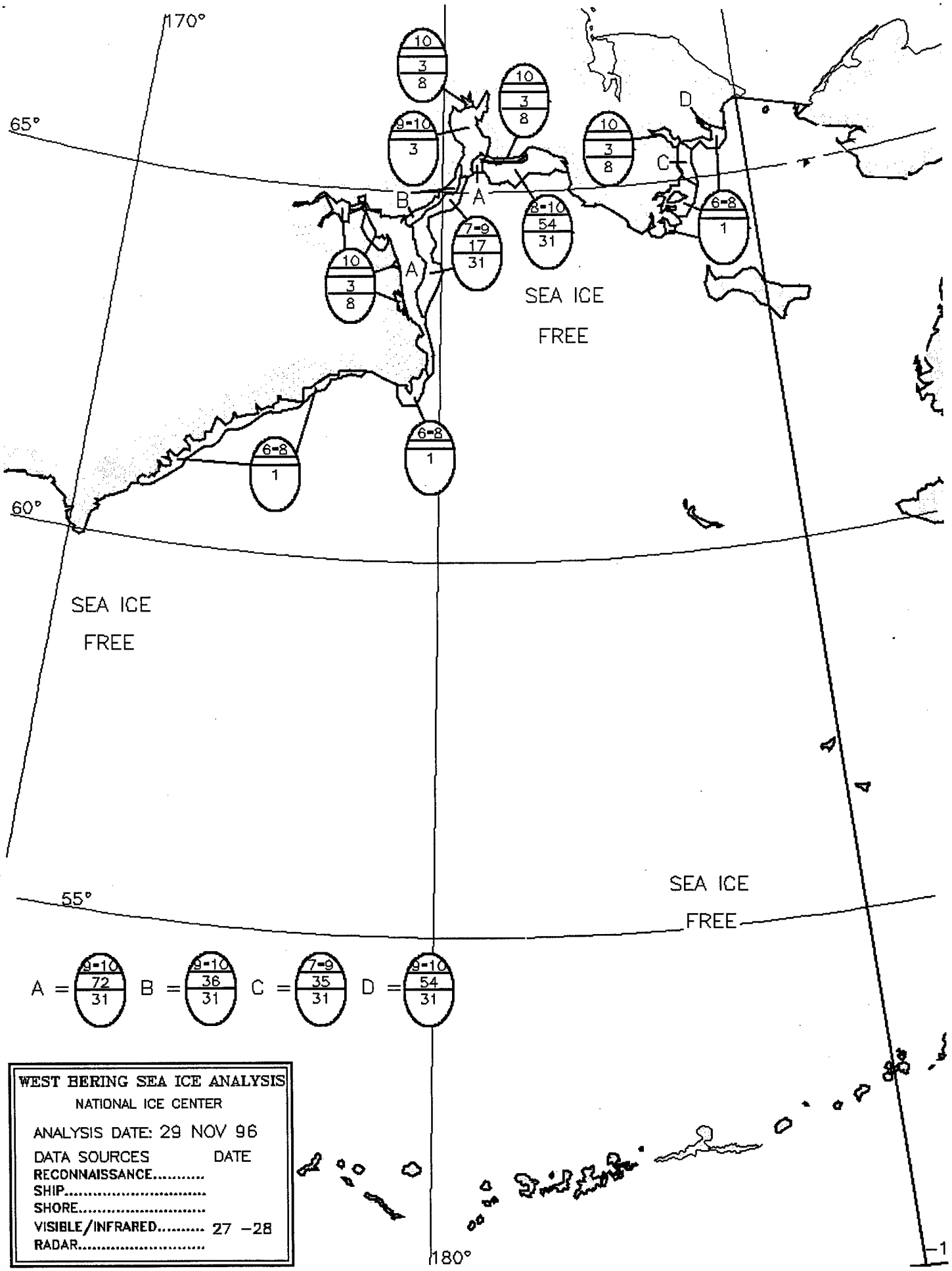
8
8-10
72
31
21
A
8-10
36
31
6-8
1
10
3
8
6-8
1
3-5
1
SEA ICE FREE
A=
9-10
54
31
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25
RADAR.....


170°
65°
60°
55°
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8
9-10
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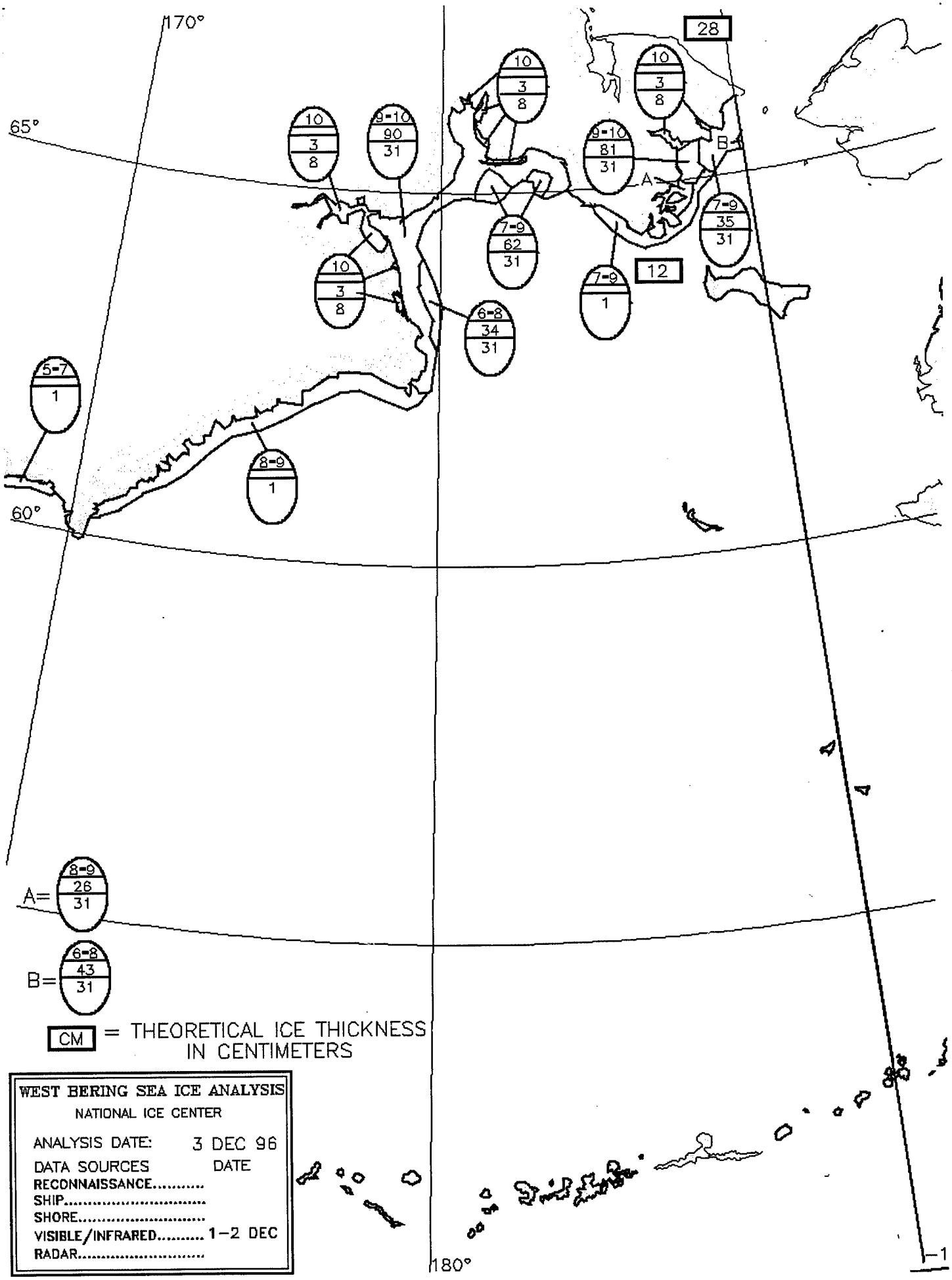
10
3
8
10
3
8
D
C
B
A
8-10
54
31
7-9
17
31
6-8
1
6-8
1
6-8
1
SEA ICE
FREE
SEA ICE
FREE
SEA ICE
FREE
A = 9-10 / 72 / 31
B = 9-10 / 36 / 31
C = 7-9 / 35 / 31
D = 9-10 / 54 / 31
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 27 -28
RADAR.....
-1


170°
65°
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180°
28
12
10
3
8
9-10
90
31
9-10
81
31
7-9
62
31
7-9
35
31
7-9
1
6-8
34
31
5-7
1
8-9
1
A
B
A= 8-9 26 31
B= 6-8 43 31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 1-2 DEC
RADAR.....
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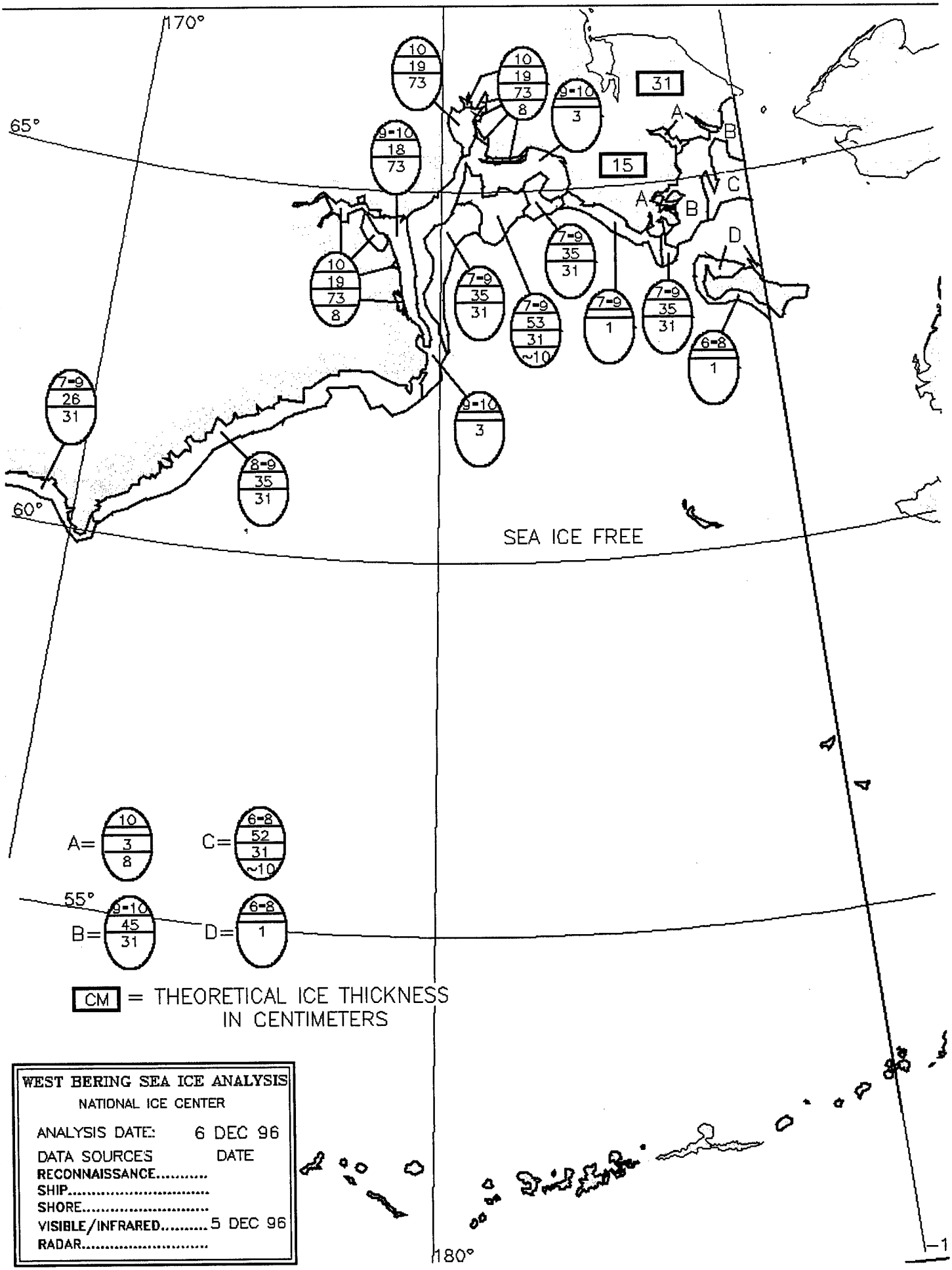
170°
65°
60°
55°
180°
SEA ICE FREE
31
15
A
B
C
D
10 19 73
10 19 73 8
9-10 3
9-10 18 73
10 19 73 8
7-9 35 31
7-9 53 31 ~10
7-9 1
7-9 35 31
6-8 1
7-9 26 31
8-9 35 31
9-10 3
A= 10 3 8
C= 6-8 52 31 ~10
B= 9-10 45 31
D= 6-8 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 6 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....5 DEC 96
RADAR.....
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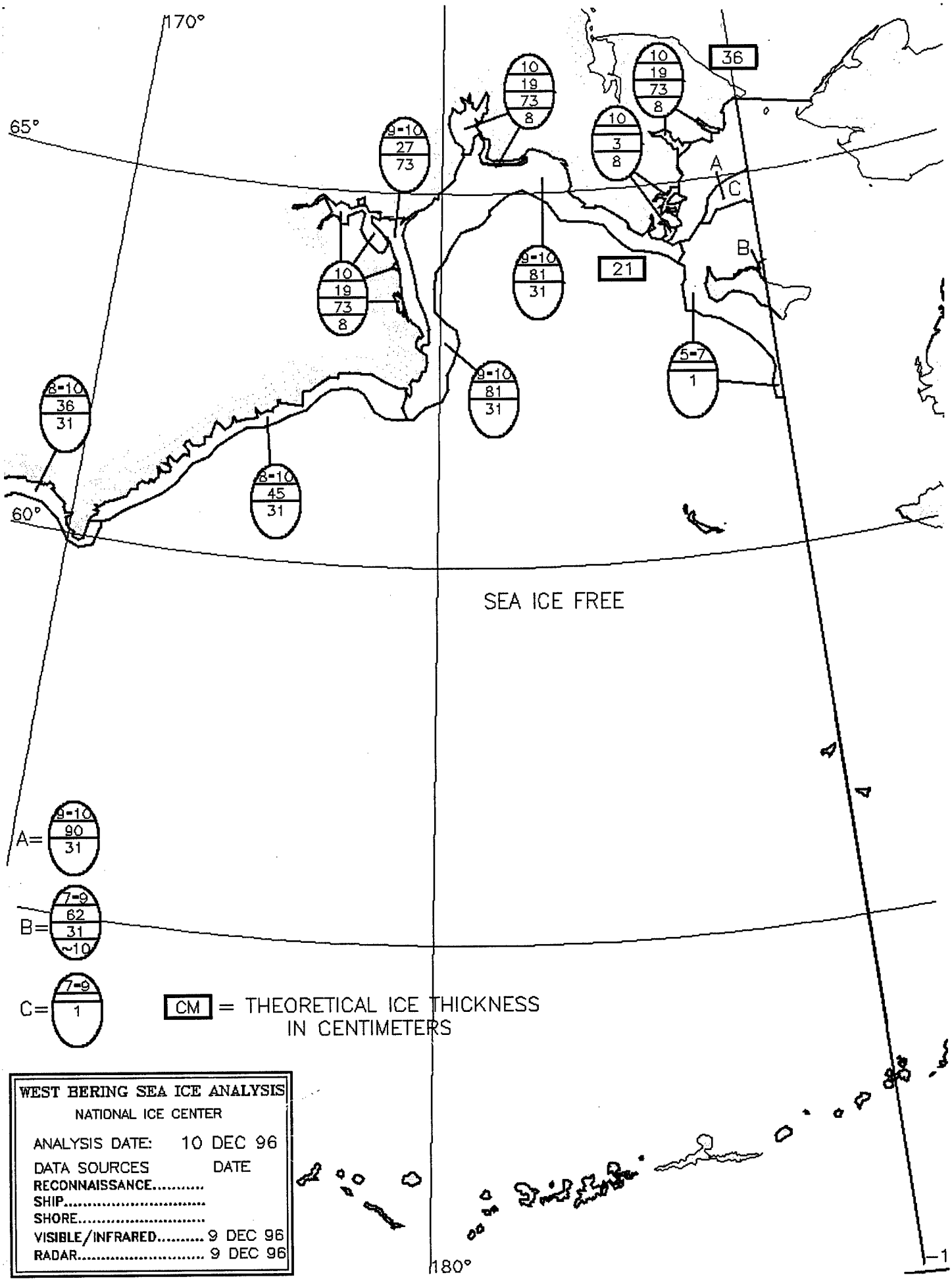
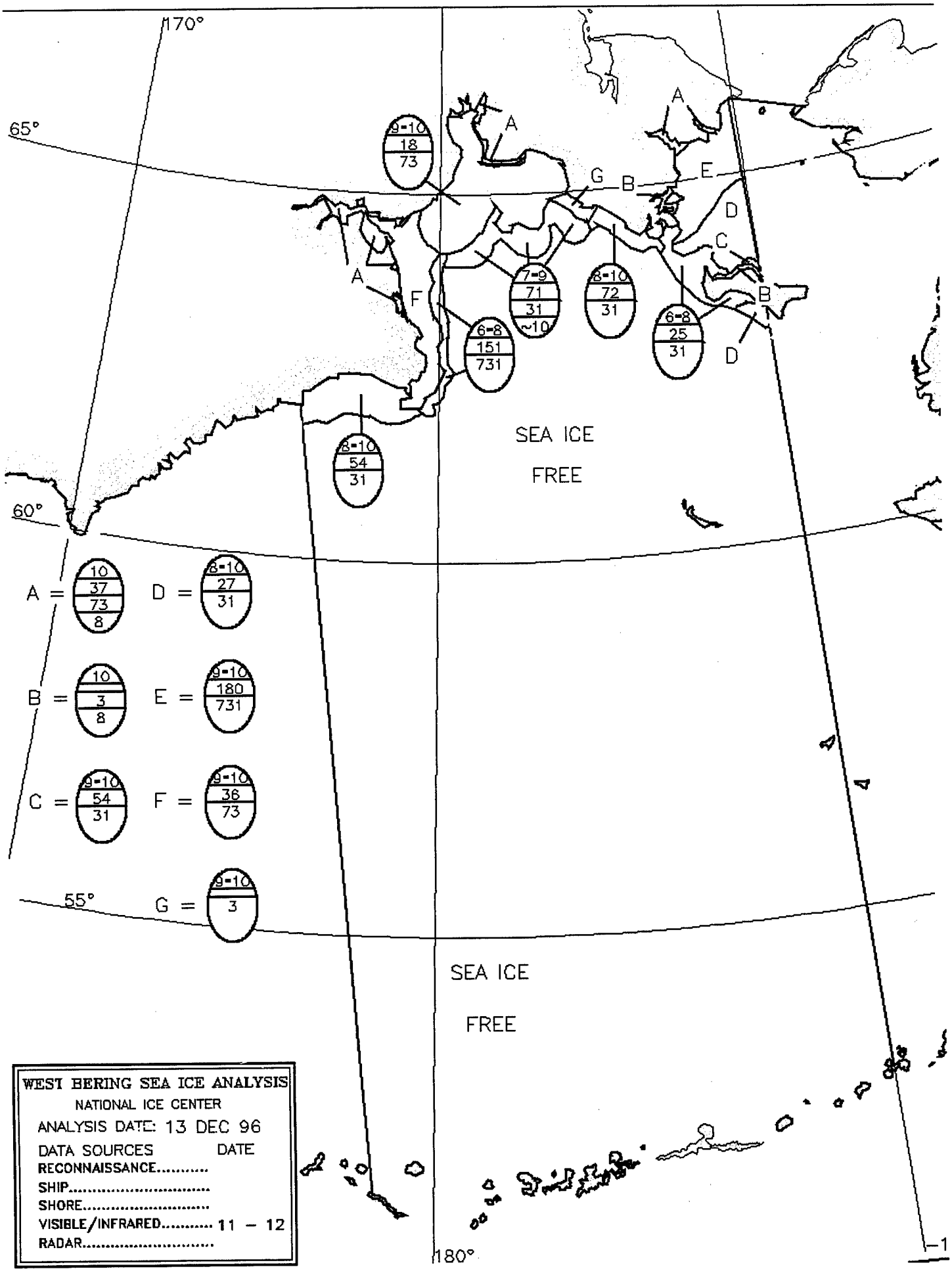

170°
65°
60°
180°
36
21
A
B
C
10
19
73
8
9-10
27
73
10
3
8
9-10
81
31
5-7
1
8-10
36
31
8-10
45
31
SEA ICE FREE
A=
9-10
90
31
B=
7-9
62
31
~10
C=
7-9
1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9 DEC 96
RADAR..... 9 DEC 96


170°
65°
60°
55°
180°
9-10
18
73
A
G
B
E
D
C
F
7-9
71
31
~10
8-10
72
31
6-8
25
31
6-8
151
731
8-10
54
31
SEA ICE
FREE
A = 10 / 37 / 73 / 8
D = 8-10 / 27 / 31
B = 10 / 3 / 8
E = 9-10 / 180 / 731
C = 9-10 / 54 / 31
F = 9-10 / 36 / 73
G = 9-10 / 3
SEA ICE
FREE
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 13 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11 – 12
RADAR.....
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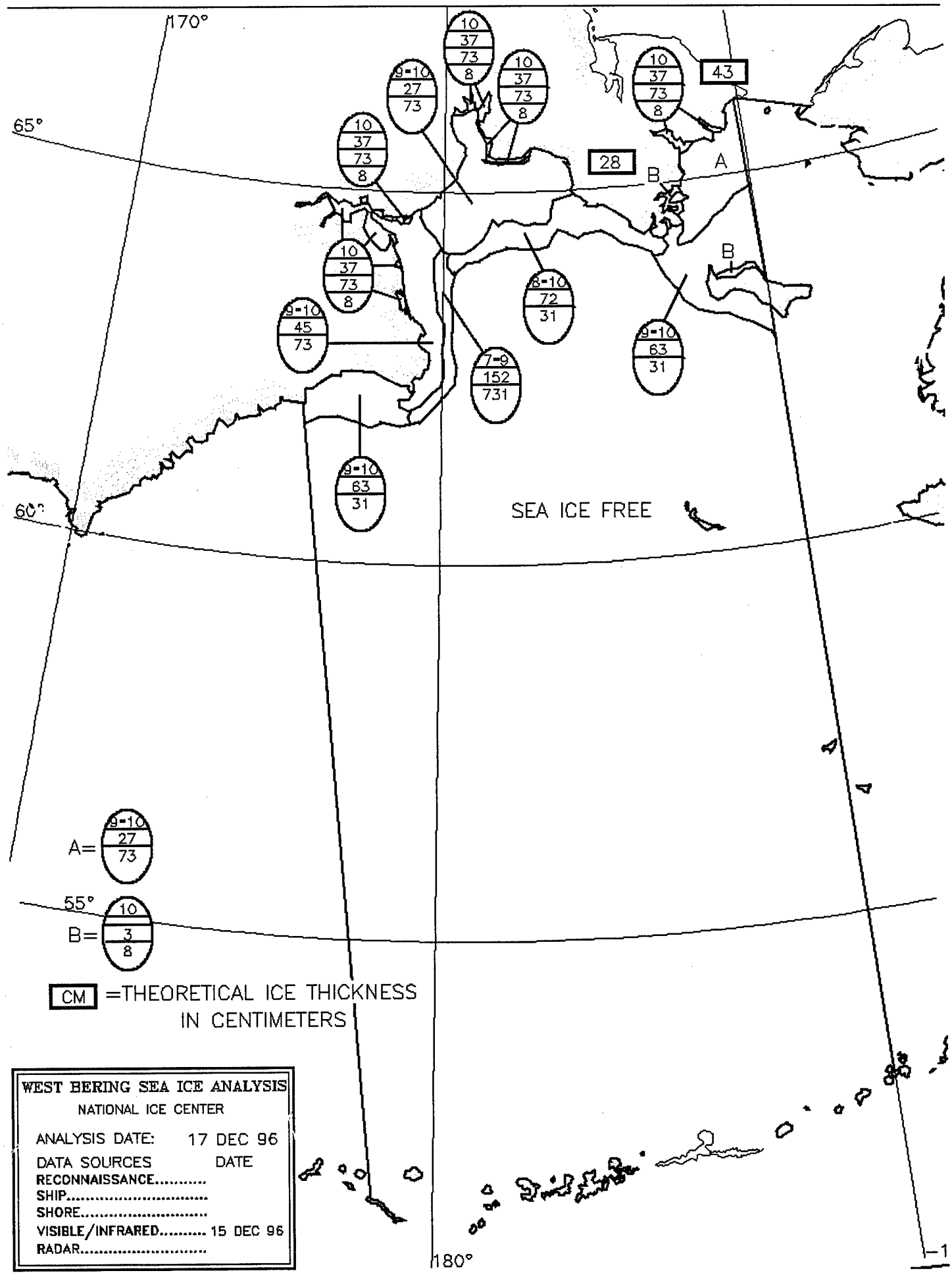
170°
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180°
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73
8
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27
73
43
28
A
B
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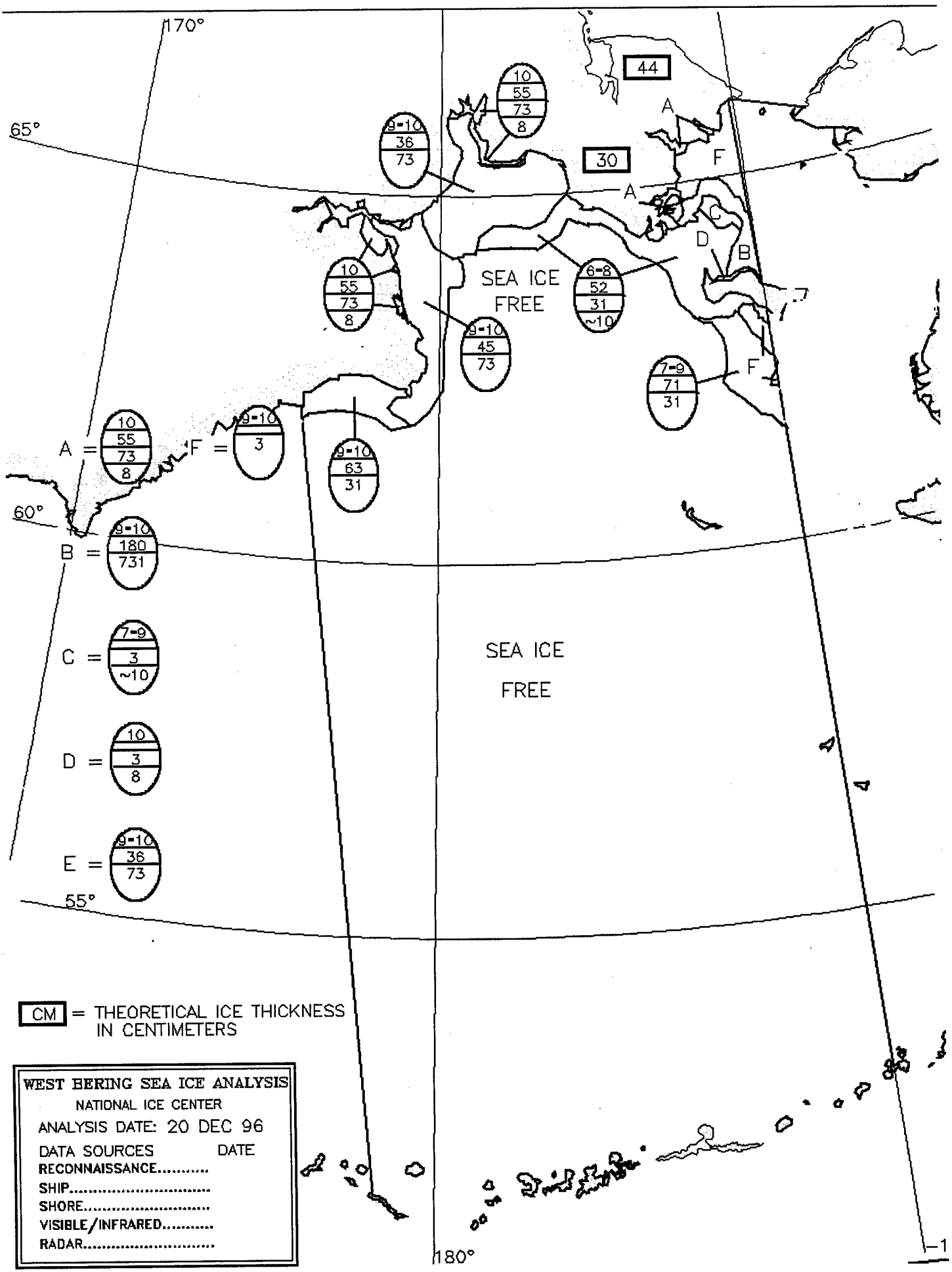
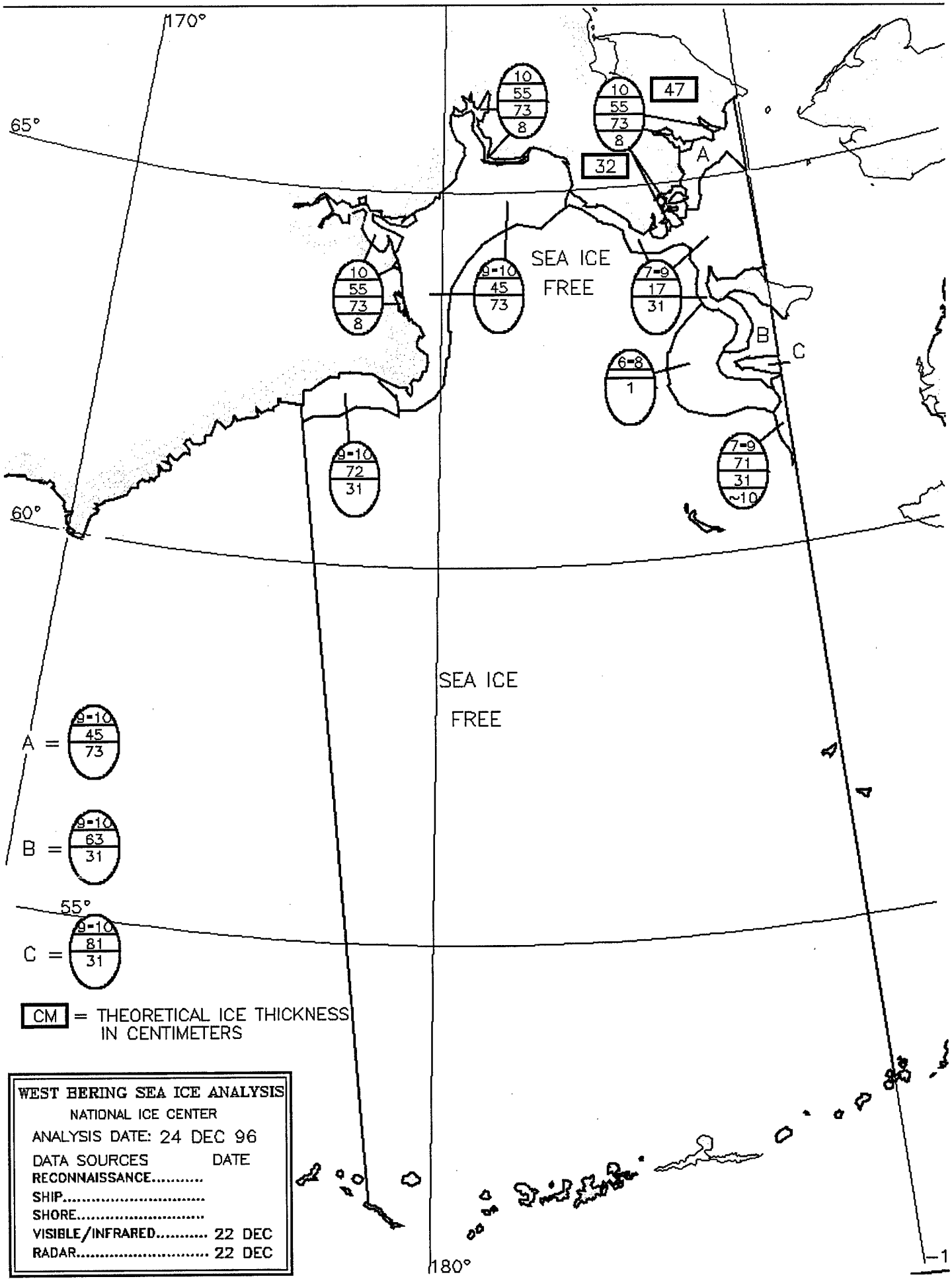
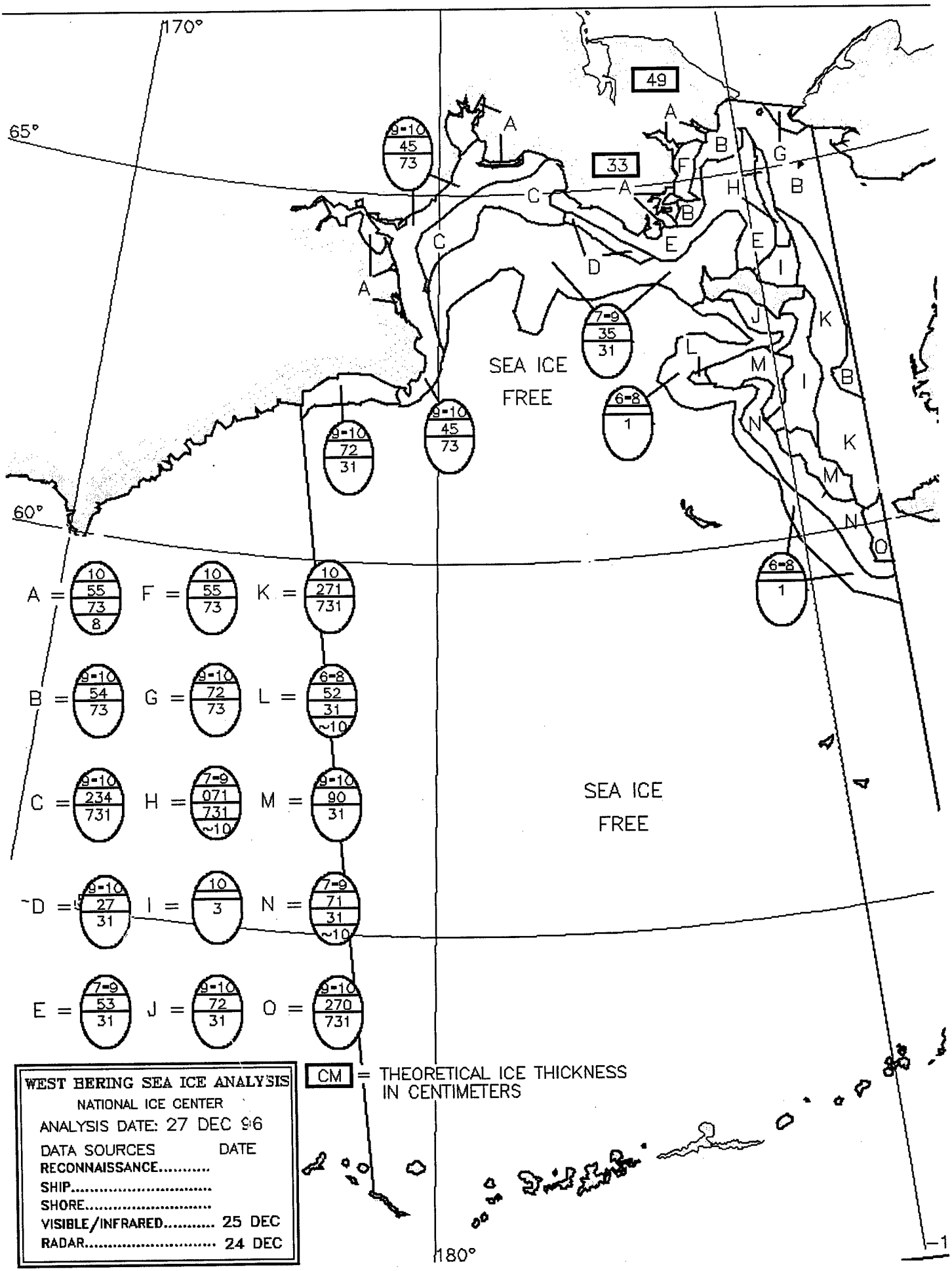
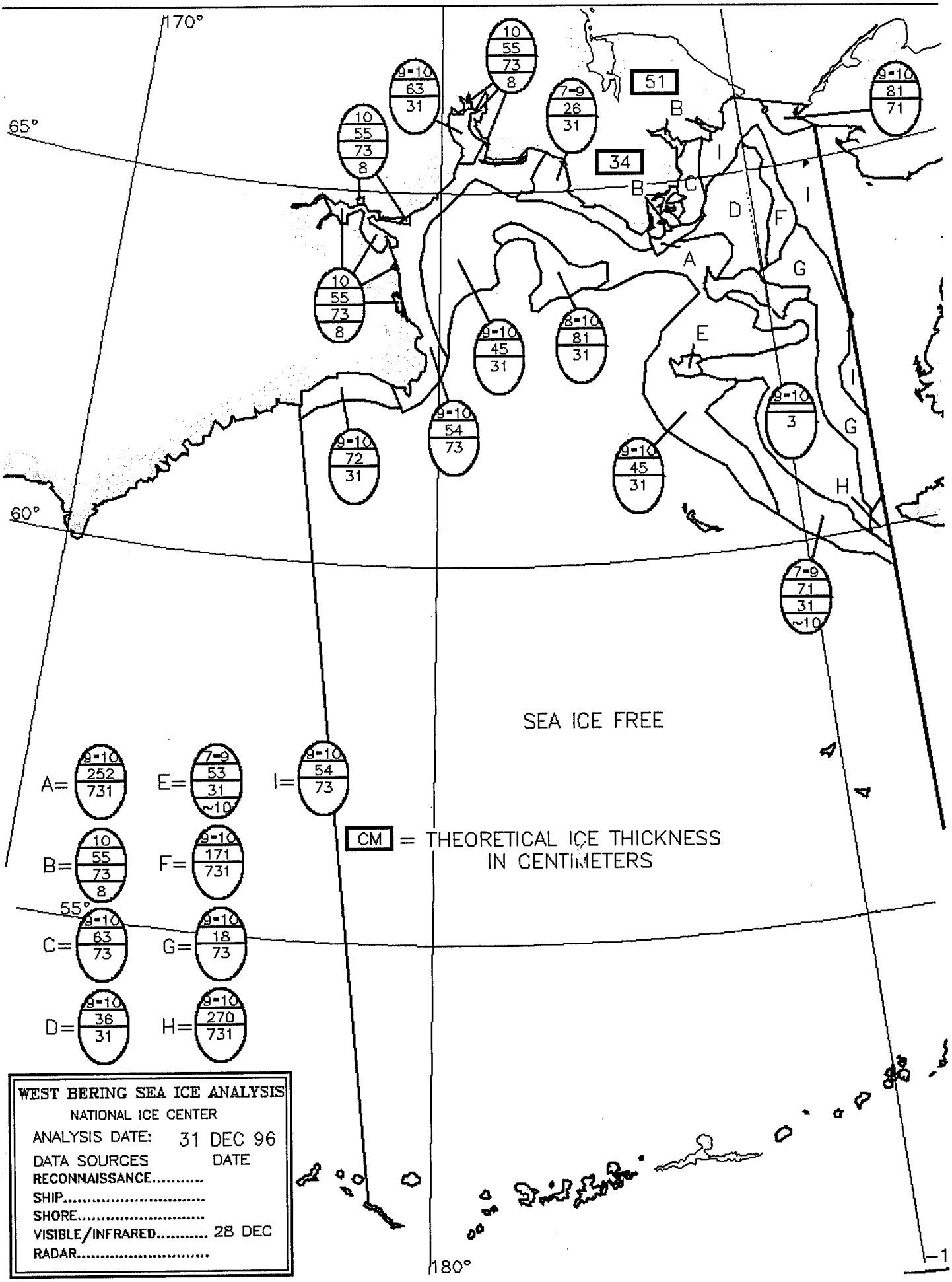
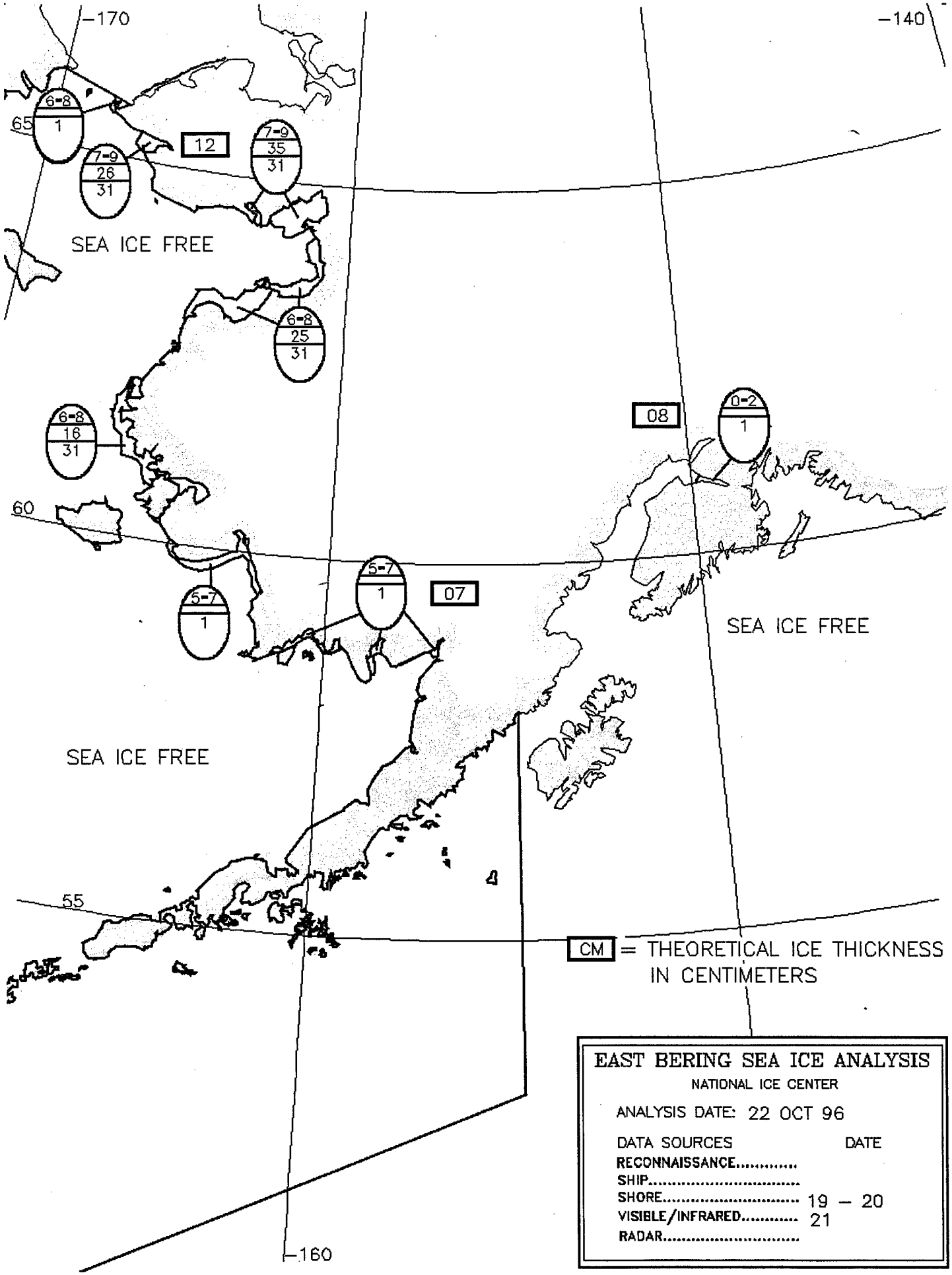
45
73
8-10
72
31
9-10
63
31
7-9
152
731
SEA ICE FREE
A=
B=
CM =THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15 DEC 96
RADAR.....

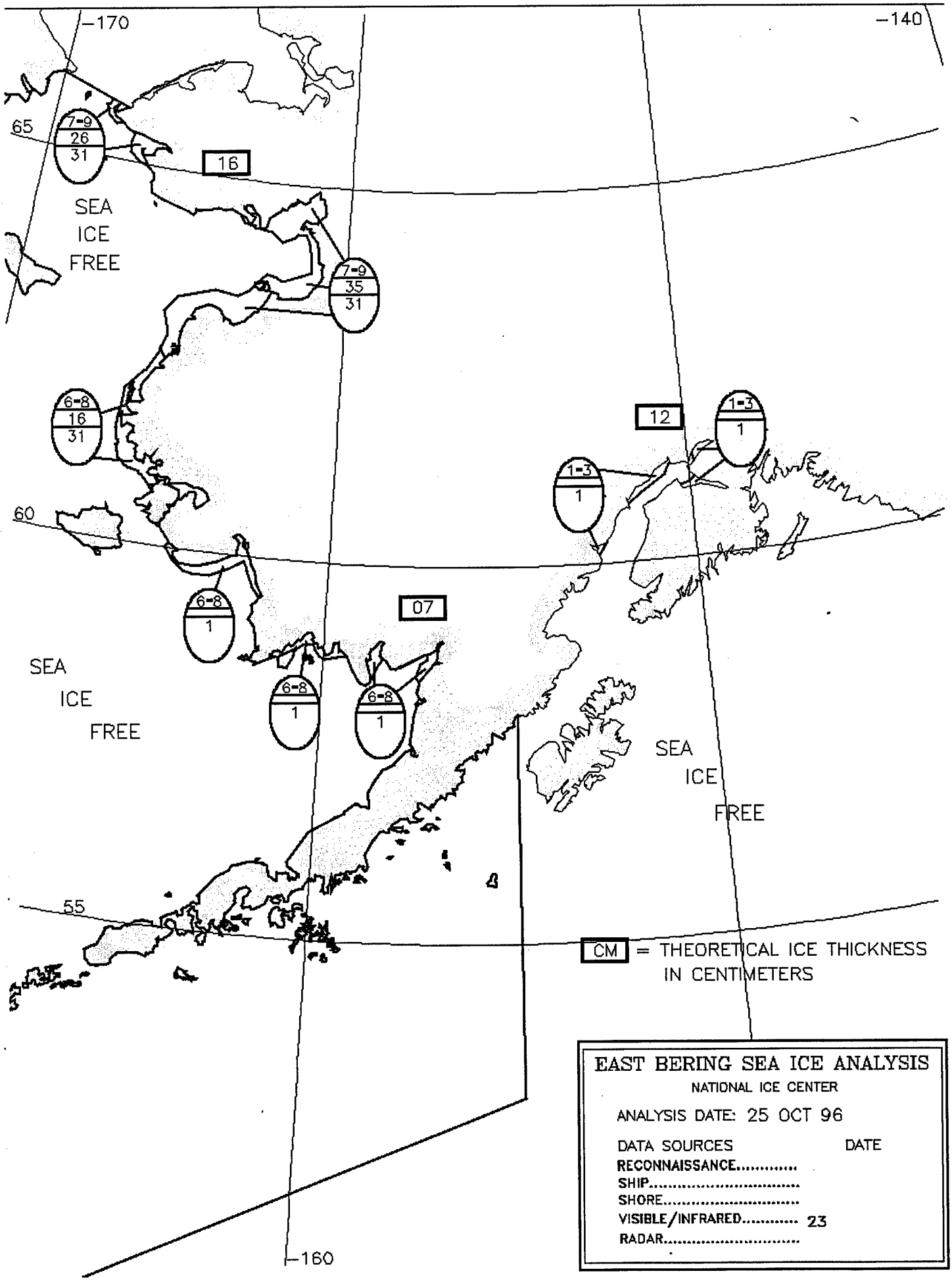

170°
65°
60°
55°
180°
44
30
A
F
C
D
B
SEA ICE FREE
SEA ICE FREE
10 55 73 8
9-10 36 73
10 55 73 8
9-10 45 73
6-8 52 31 ~10
7-9 71 31
9-10 63 31
A = 10 55 73 8
F = 9-10 3
B = 9-10 180 731
C = 7-9 3 ~10
D = 10 3 8
E = 9-10 36 73
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 20 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


170°
65°
60°
55°
180°
10
55
73
8
47
32
A
SEA ICE
FREE
9-10
45
73
7-9
17
31
B
C
6-8
1
9-10
72
31
7-9
71
31
~10
SEA ICE
FREE
A = 9-10 45 73
B = 9-10 63 31
C = 9-10 81 31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 DEC
RADAR..... 22 DEC


170°
65°
60°
180°
49
33
SEA ICE FREE
SEA ICE FREE
A = 10 / 55 / 73 / 8
F = 10 / 55 / 73
K = 10 / 271 / 731
B = 9-10 / 54 / 73
G = 9-10 / 72 / 73
L = 6-8 / 52 / 31 / ~10
C = 9-10 / 234 / 731
H = 7-9 / 071 / 731 / ~10
M = 9-10 / 90 / 31
D = 9-10 / 27 / 31
I = 10 / 3
N = 7-9 / 71 / 31 / ~10
E = 7-9 / 53 / 31
J = 9-10 / 72 / 31
O = 9-10 / 270 / 731
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 DEC
RADAR..... 24 DEC


170°
65°
60°
55°
180°
51
34
SEA ICE FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 / 252 / 731
B= 10 / 55 / 73 / 8
C= 9-10 / 63 / 73
D= 9-10 / 36 / 31
E= 7-9 / 53 / 31 / ~10
F= 9-10 / 171 / 731
G= 9-10 / 18 / 73
H= 9-10 / 270 / 731
I= 9-10 / 54 / 73
WEST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28 DEC
RADAR.....


-170
-140
65
60
55
-160
6-8
1
7-9
26
31
12
7-9
35
31
SEA ICE FREE
6-8
25
31
6-8
16
31
08
0-2
1
5-7
1
5-7
1
07
SEA ICE FREE
SEA ICE FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 19 – 20
VISIBLE/INFRARED..... 21
RADAR.....


-170
-140
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-160
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31
16
SEA
ICE
FREE
7-9
35
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6-8
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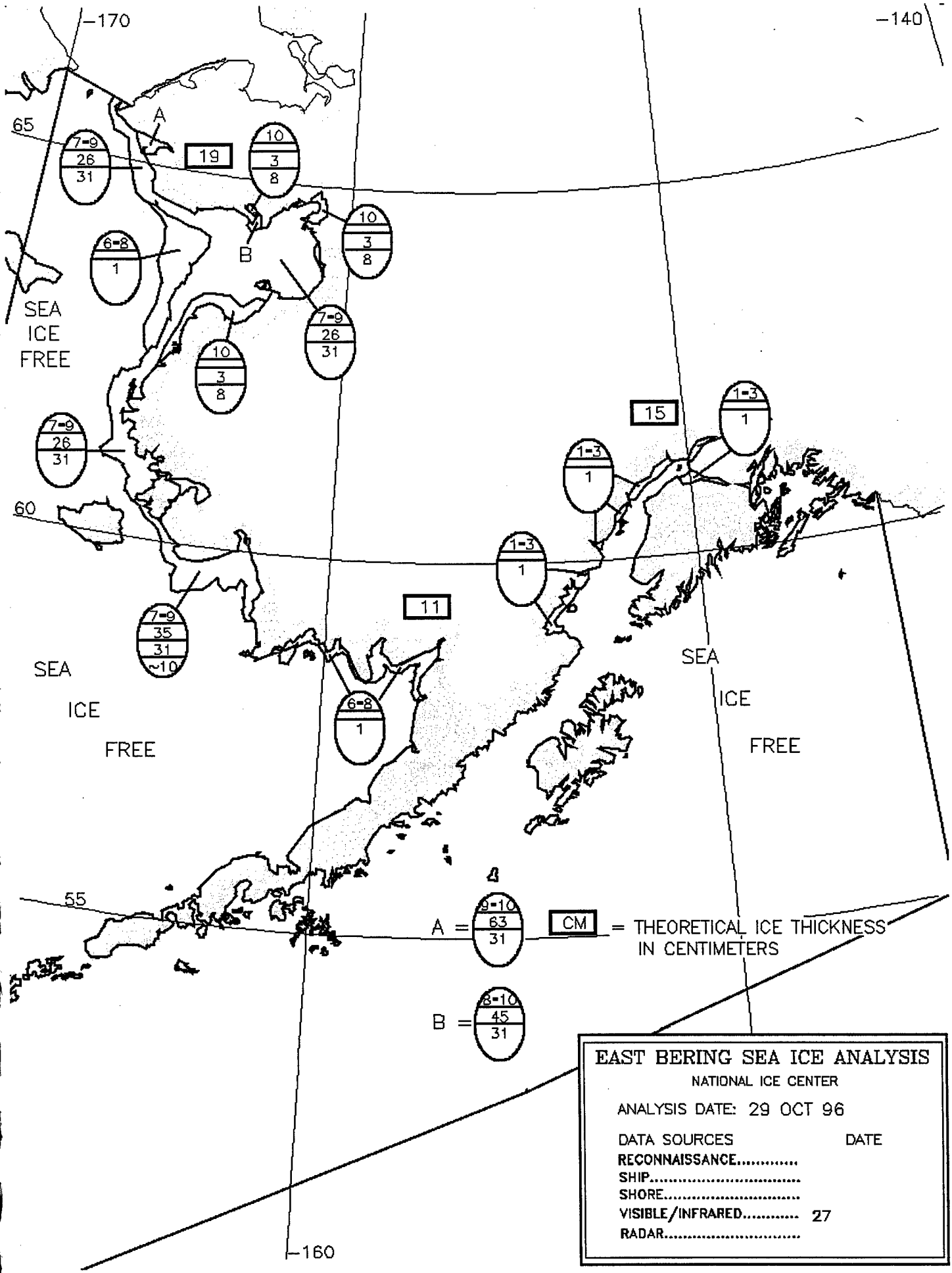
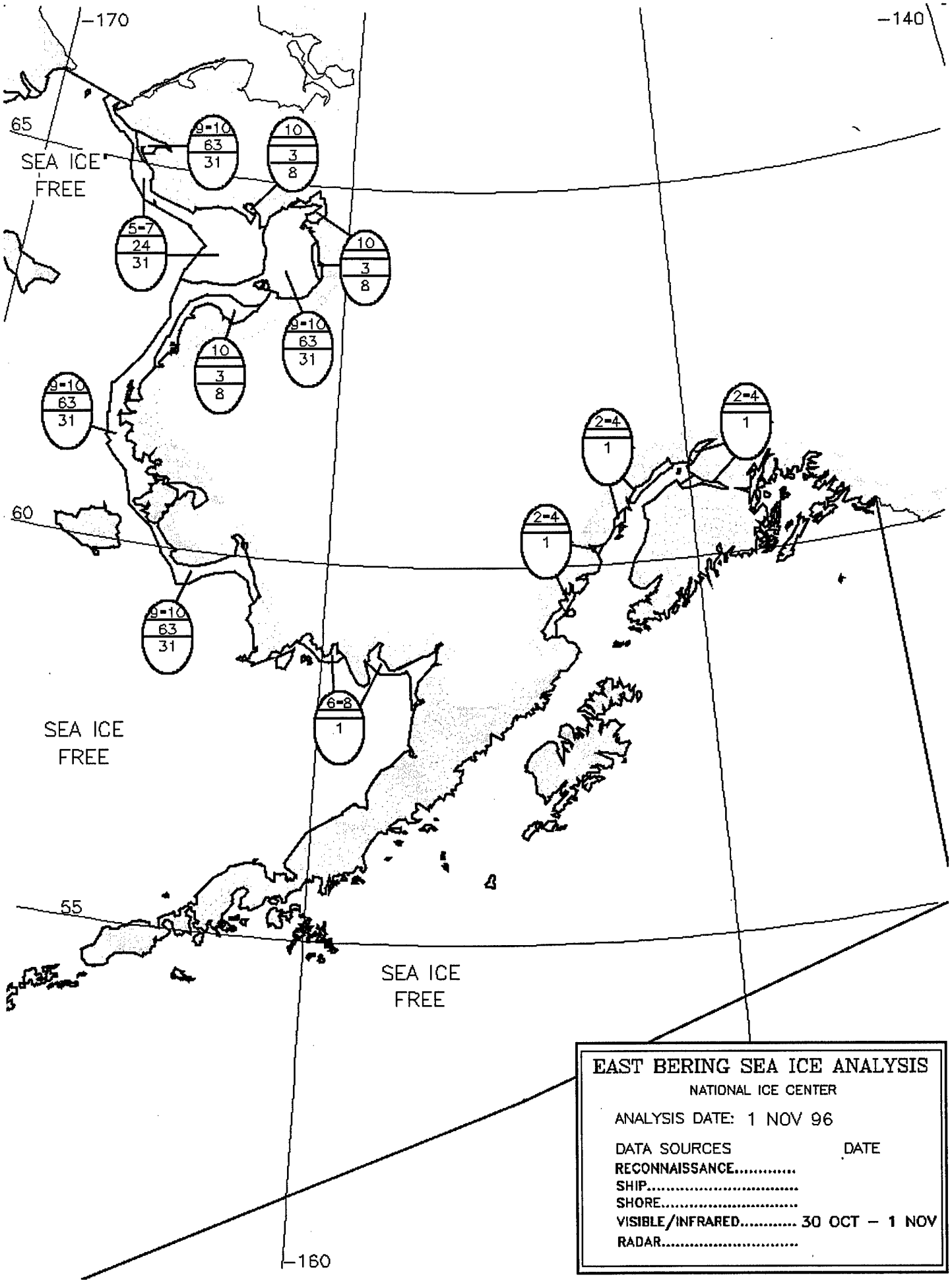
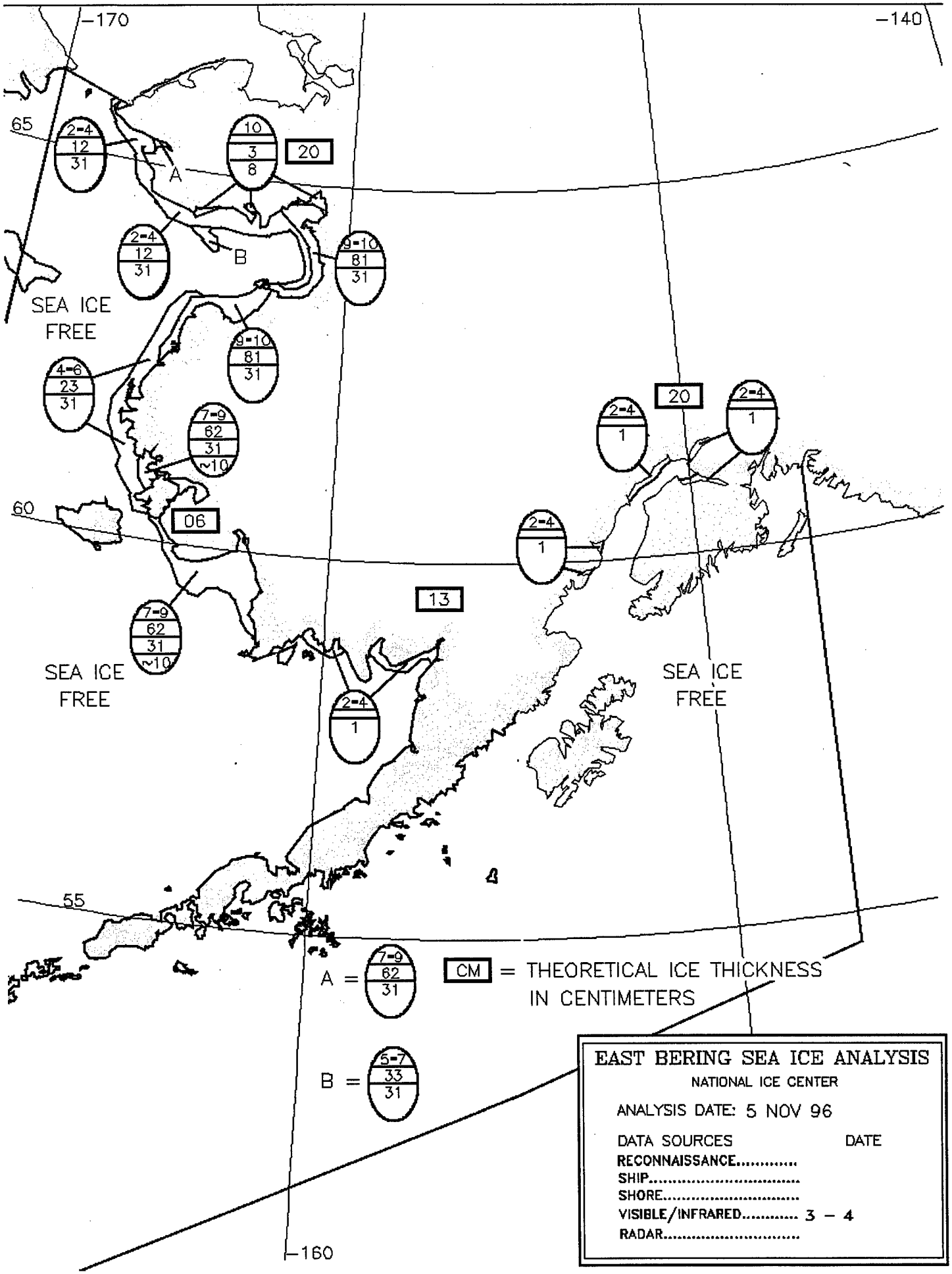
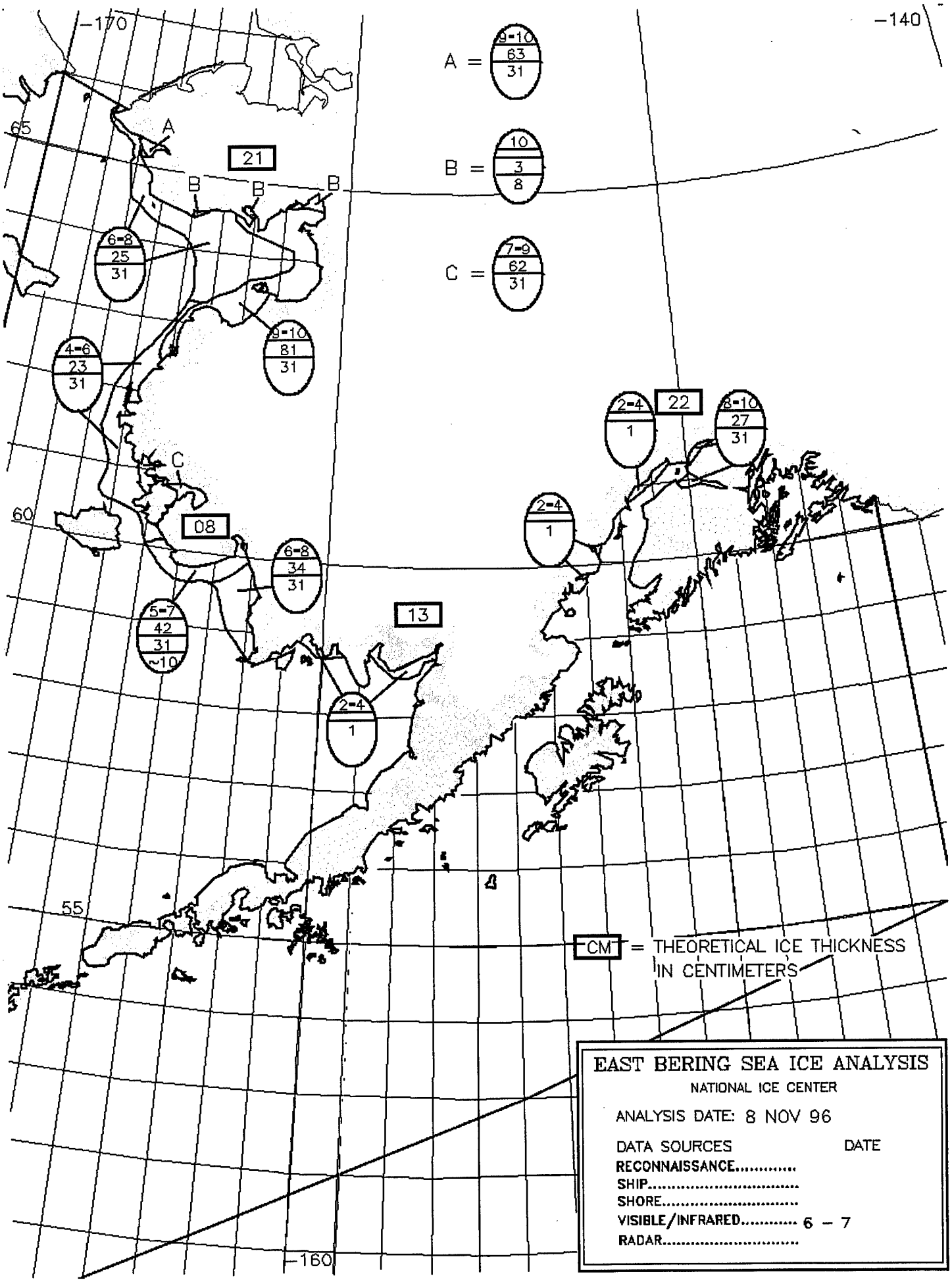
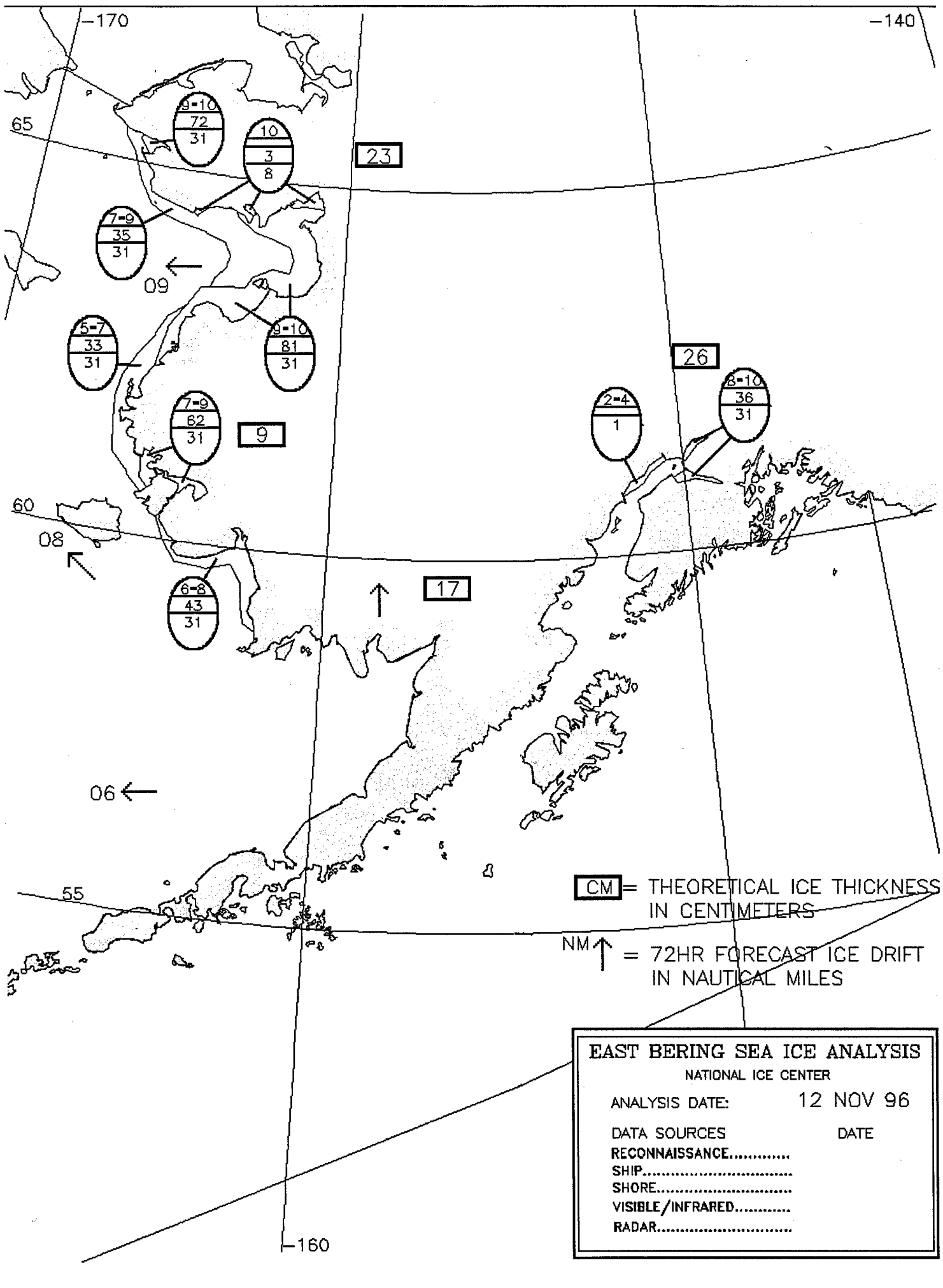
31
12
1-3
1
1-3
1
6-8
1
07
SEA
ICE
FREE
6-8
1
6-8
1
SEA
ICE
FREE
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 25 OCT 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 23
RADAR.....

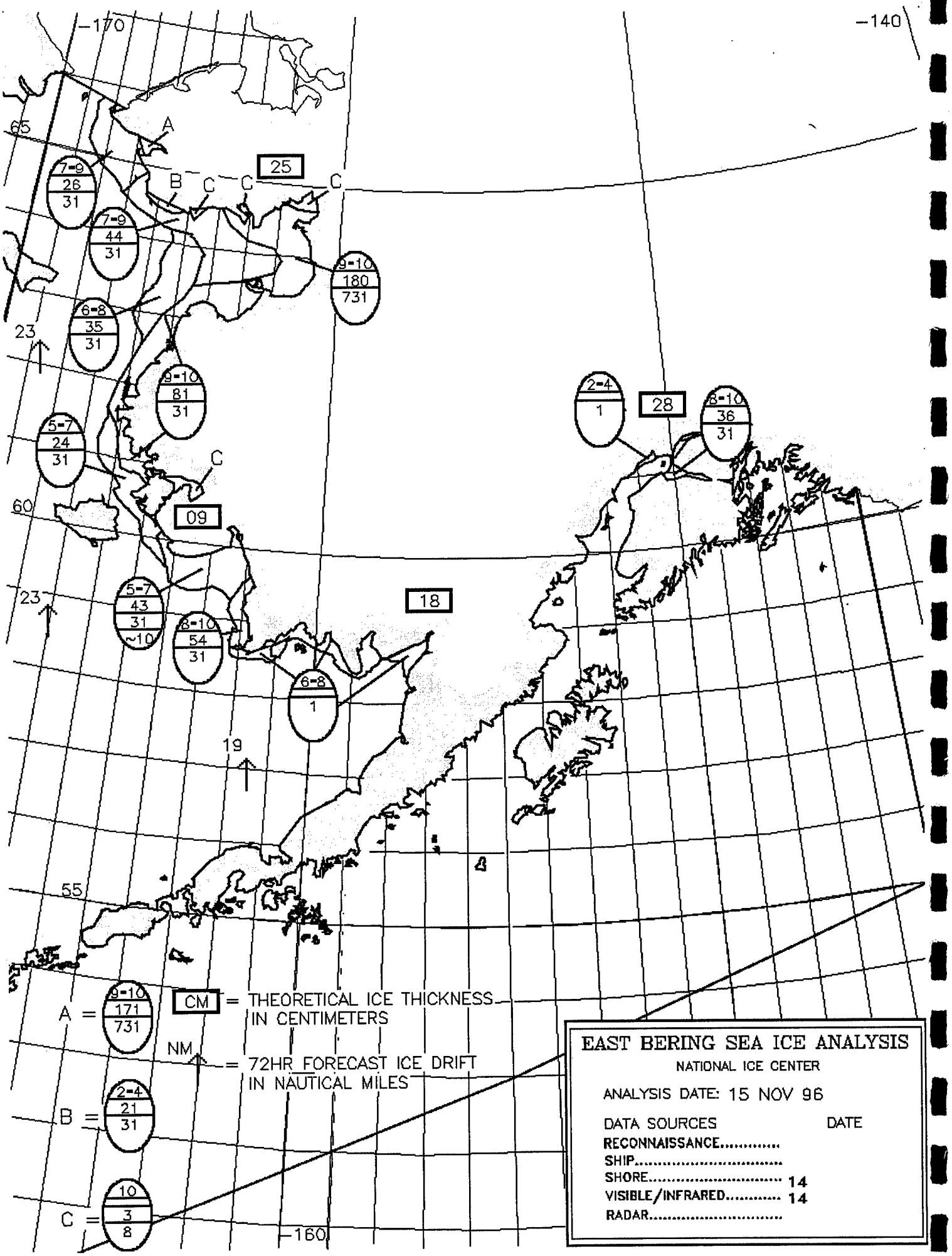

-170
-140
65
60
55
-160
A
B
19
15
11
7-9
26
31
10
3
8
6-8
1
1-3
1
7-9
35
31
~10
SEA
ICE
FREE
A = 9-10 / 63 / 31 CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
B = 8-10 / 45 / 31
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 27
RADAR.....

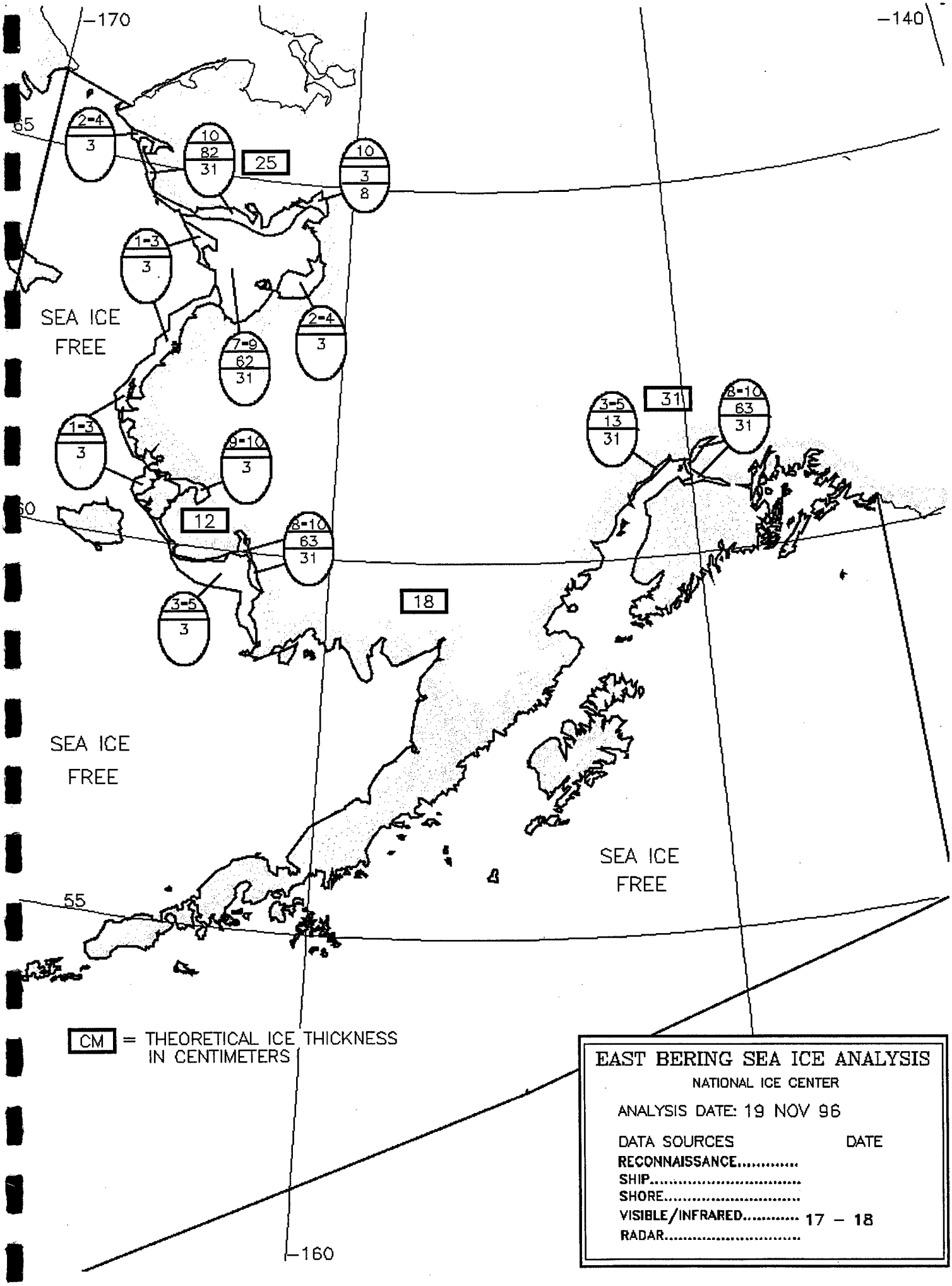

-170
-140
65
60
55
-160
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
9-10
63
31
10
3
8
5-7
24
31
2-4
1
6-8
1
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 1 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 30 OCT – 1 NOV
RADAR.....

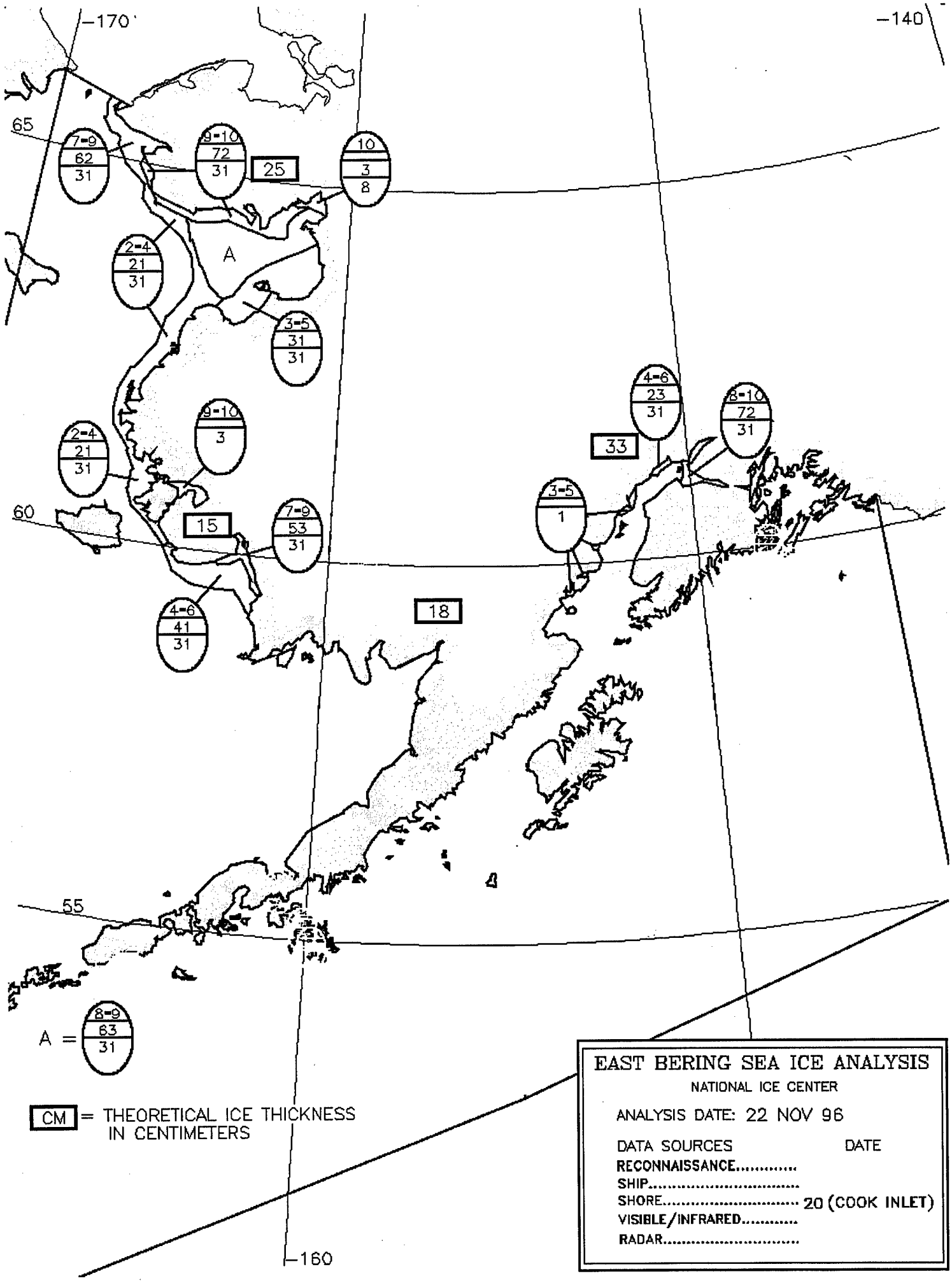

-170
-140
65
60
55
-160
2-4
12
31
10
3
8
20
A
B
9-10
81
31
SEA ICE
FREE
4-6
23
31
7-9
62
31
~10
06
13
2-4
1
SEA ICE
FREE
SEA ICE
FREE
A = 7-9 62 31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
B = 5-7 33 31
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 5 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 3 - 4
RADAR.....

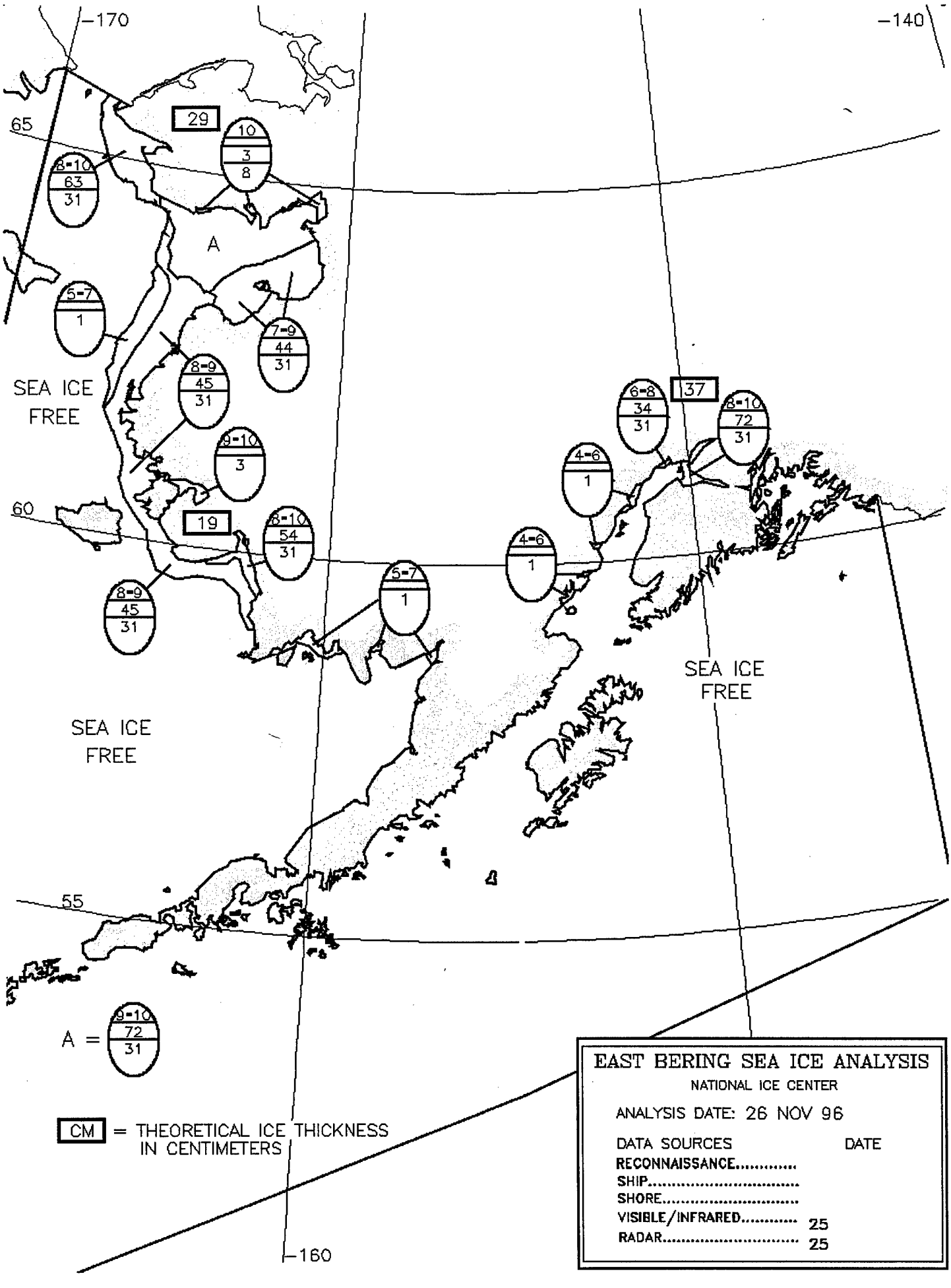

-170
-140
65
60
55
-160
A = 9-10 / 63 / 31
B = 10 / 3 / 8
C = 7-9 / 62 / 31
21
22
08
13
A
B
B
B
C
6-8 / 25 / 31
9-10 / 81 / 31
4-6 / 23 / 31
2-4 / 1
8-10 / 27 / 31
2-4 / 1
6-8 / 34 / 31
5-7 / 42 / 31 / ~10
2-4 / 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 8 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 6 – 7
RADAR.....

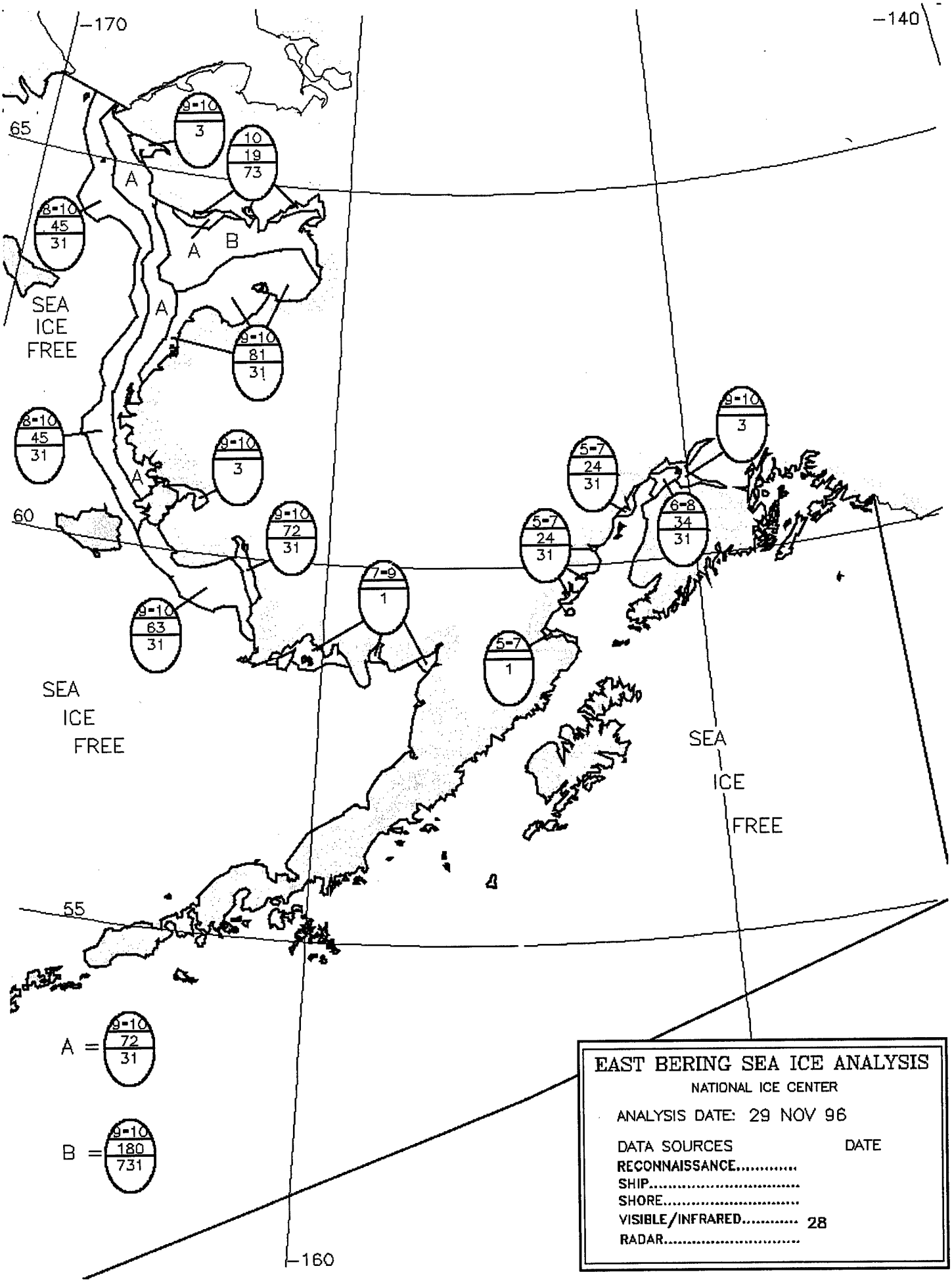

-170
-140
65
60
55
-160
9-10
72
31
10
3
8
23
7-9
35
31
09
5-7
33
31
9-10
81
31
26
8-10
36
31
2-4
1
7-9
62
31
9
08
6-8
43
31
17
06
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM = 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....

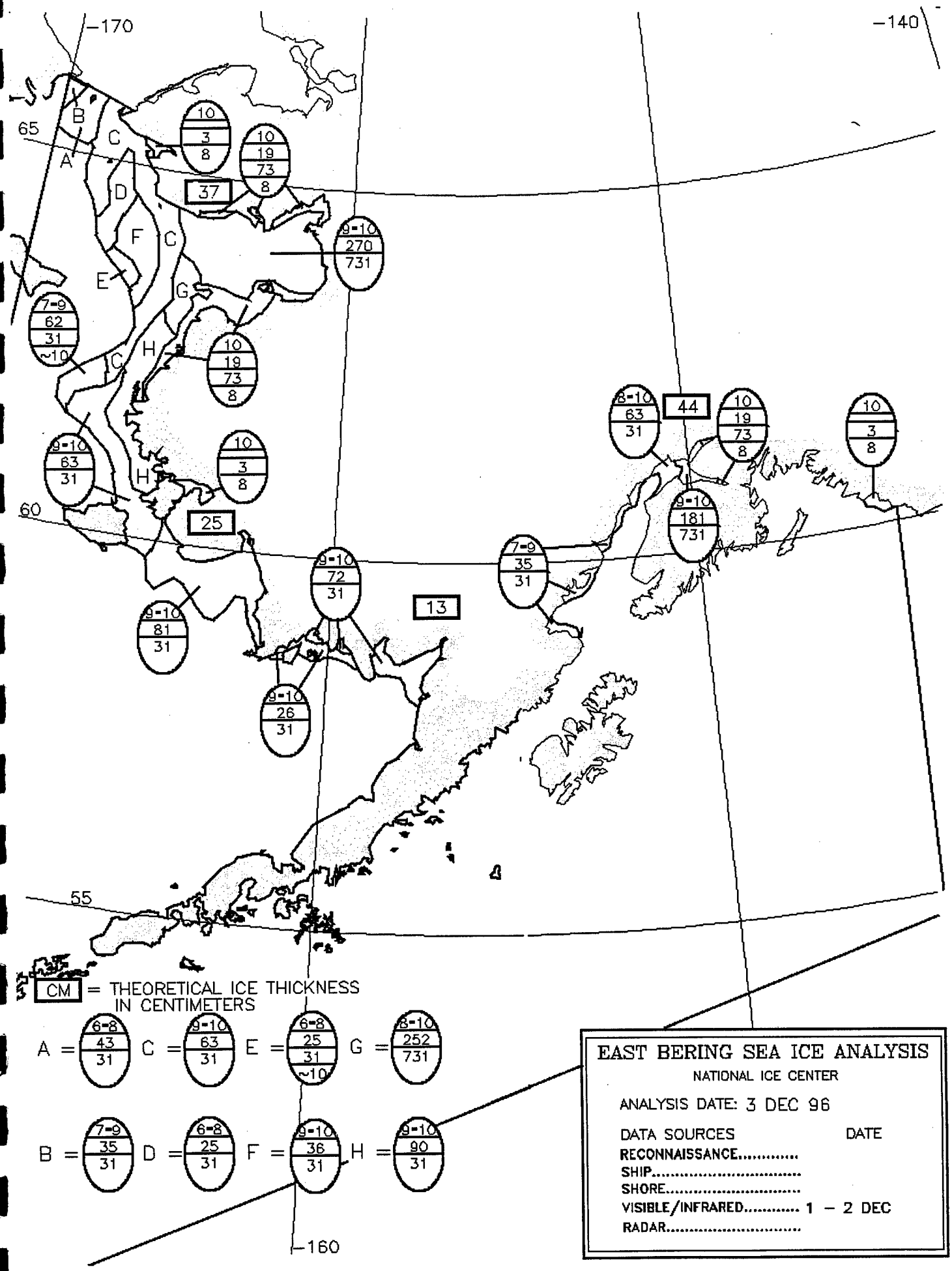

-170
-140
-160
65
60
55
23
19
A
B
C
25
28
09
18
7-9
26
31
7-9
44
31
9-10
180
731
6-8
35
31
9-10
81
31
5-7
24
31
5-7
43
31
~10
8-10
54
31
6-8
1
2-4
1
8-10
36
31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM = 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
A = 9-10 / 171 / 731
B = 2-4 / 21 / 31
C = 10 / 3 / 8
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 14
VISIBLE/INFRARED..... 14
RADAR.....

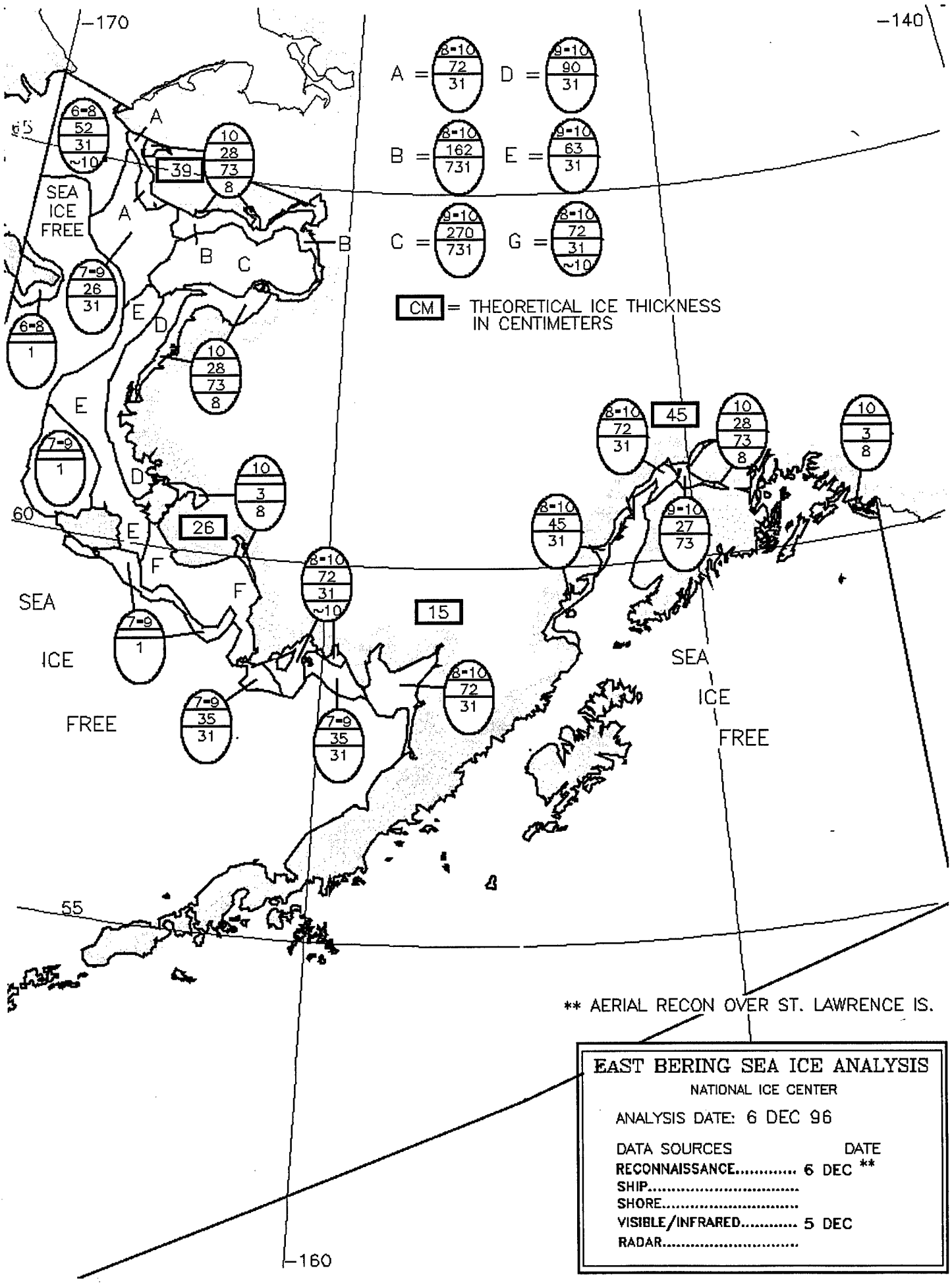

-170
-140
65
60
55
-160
2-4
3
10
82
31
25
10
3
8
1-3
3
SEA ICE
FREE
7-9
62
31
2-4
3
1-3
3
9-10
3
12
8-10
63
31
3-5
3
18
3-5
13
31
31
8-10
63
31
SEA ICE
FREE
SEA ICE
FREE
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17 – 18
RADAR.....

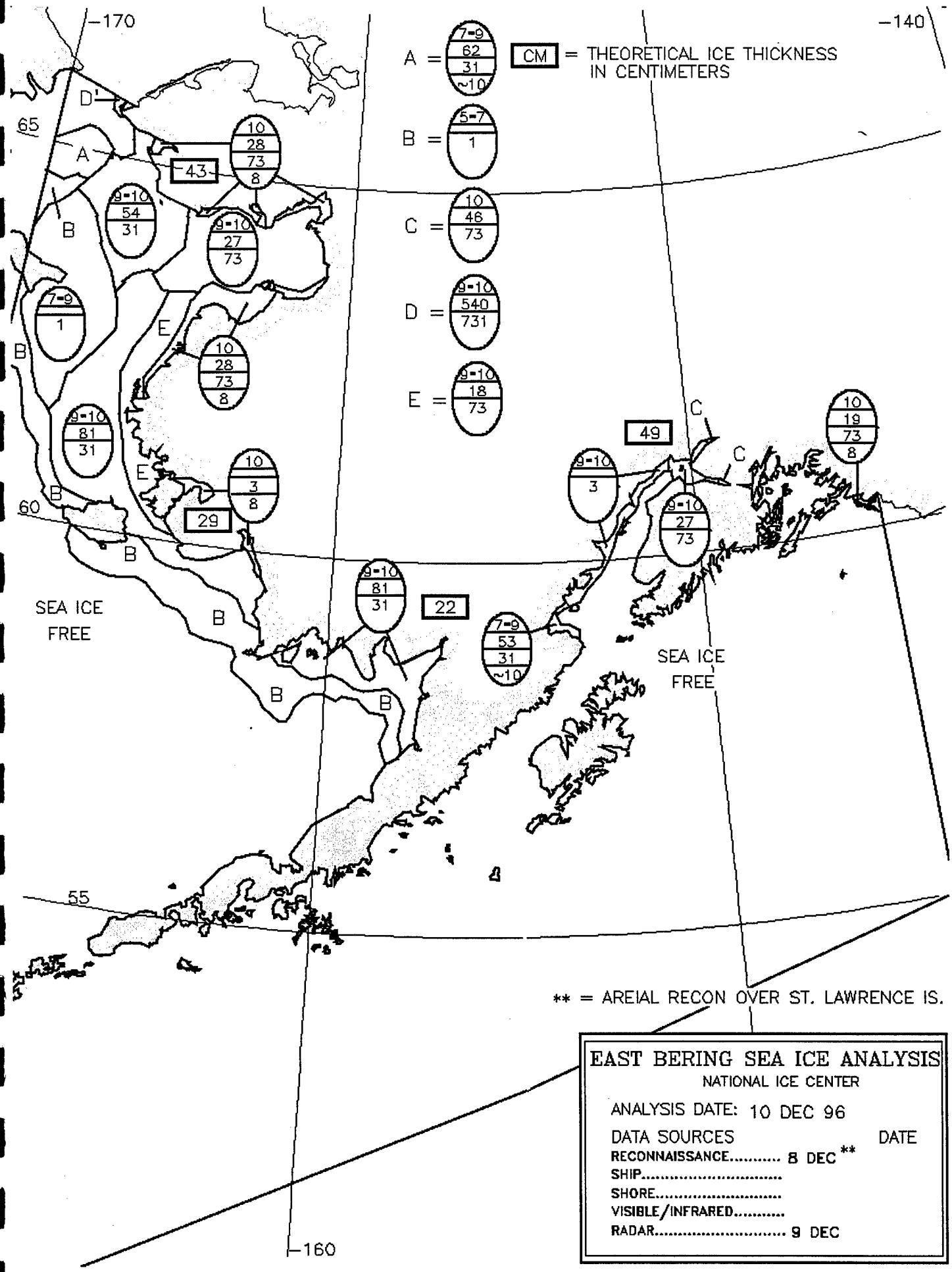

-170
-140
65
60
55
-160
7-9
62
31
9-10
72
31
25
10
3
8
2-4
21
31
A
3-5
31
31
9-10
3
2-4
21
31
15
7-9
53
31
4-6
41
31
18
4-6
23
31
8-10
72
31
33
3-5
1
A =
8-9
63
31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 20 (COOK INLET)
VISIBLE/INFRARED.....
RADAR.....

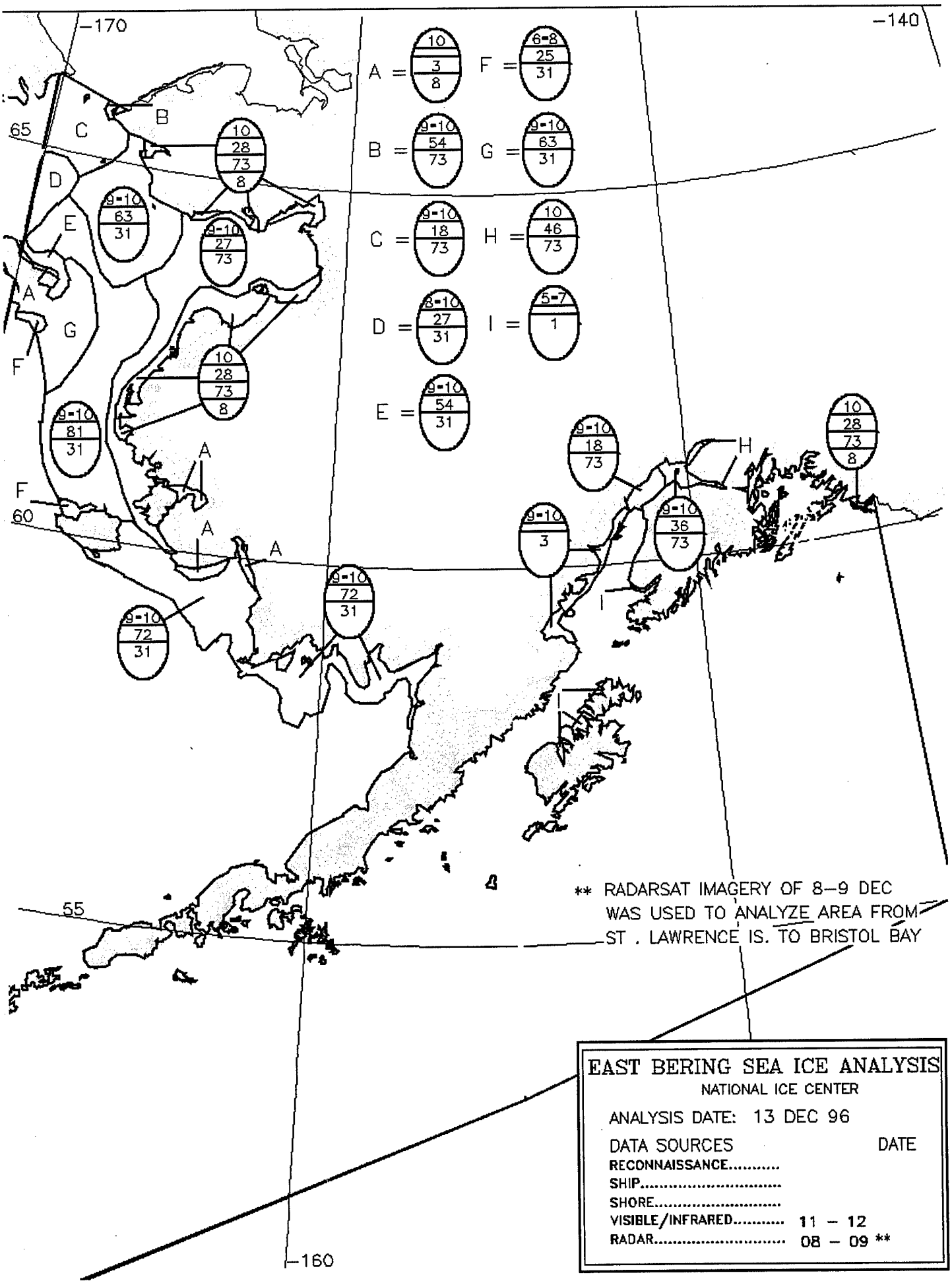

-170
-140
65
60
55
-160
29
10
3
8
8-10
63
31
A
5-7
1
7-9
44
31
8-9
45
31
SEA ICE
FREE
9-10
3
19
8-10
54
31
8-9
45
31
5-7
1
4-6
1
4-6
1
6-8
34
31
37
8-10
72
31
SEA ICE
FREE
SEA ICE
FREE
A = 9-10 / 72 / 31
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25
RADAR..... 25

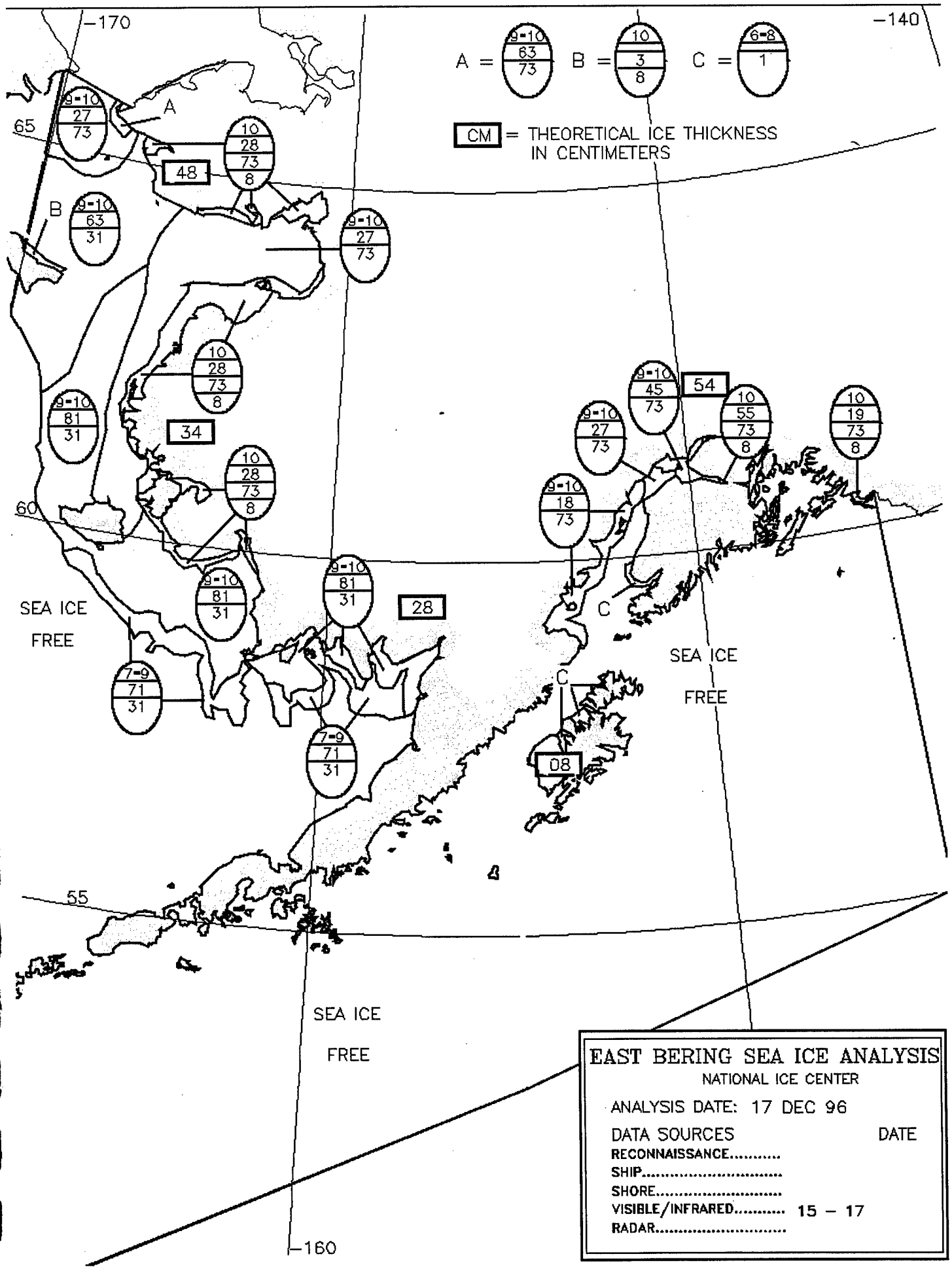

-170
-140
65
60
55
-160
9-10
3
10
19
73
8-10
45
31
A
B
SEA
ICE
FREE
9-10
81
31
9-10
72
31
9-10
63
31
7-9
1
5-7
24
31
6-8
34
31
5-7
1
A = 9-10 72 31
B = 9-10 180 731
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 NOV 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28
RADAR.....

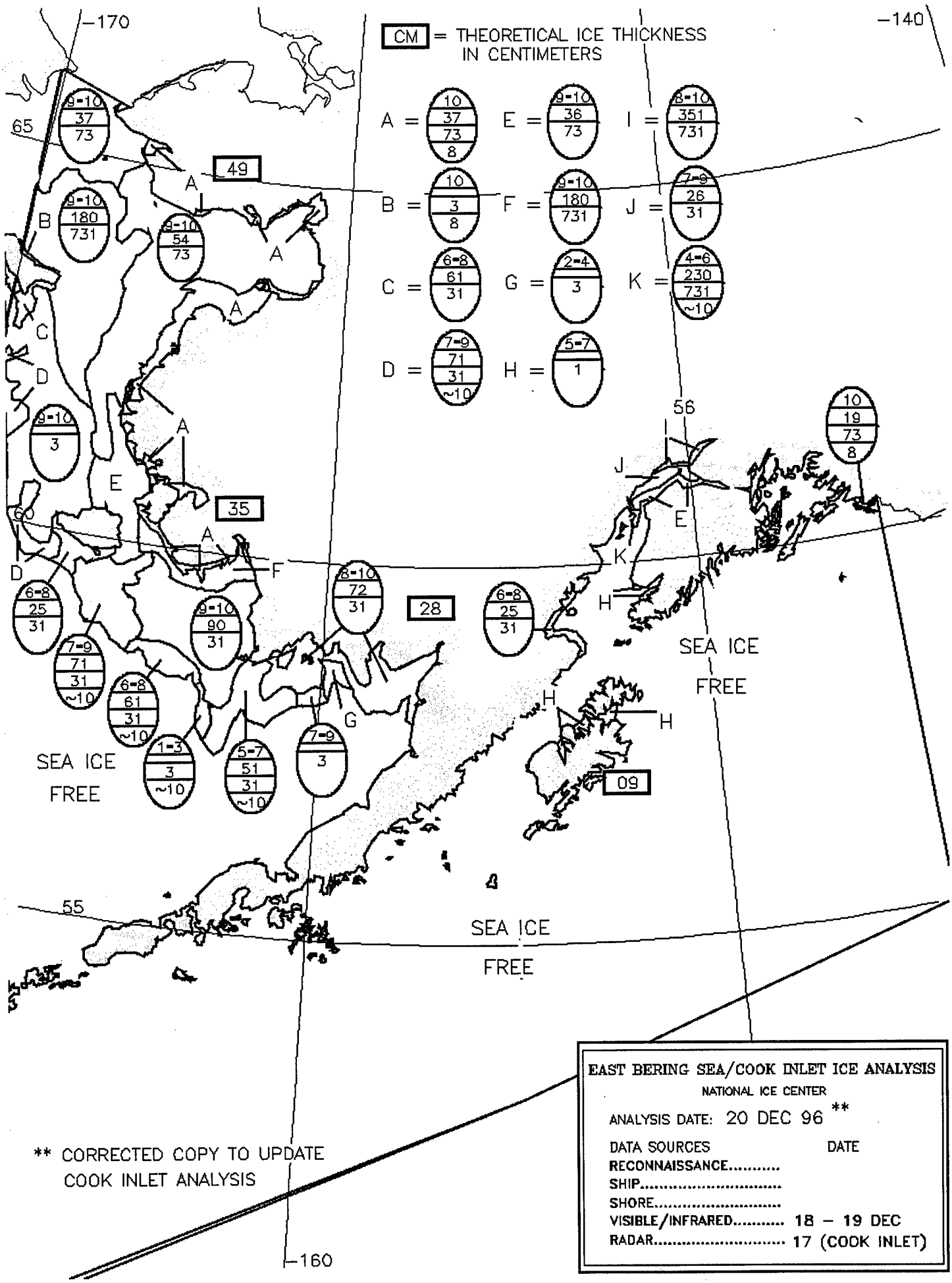

-170
-140
65
60
55
-160
A
B
C
D
E
F
G
H
37
25
13
44
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 6-8 / 43 / 31
C = 9-10 / 63 / 31
E = 6-8 / 25 / 31 / ~10
G = 8-10 / 252 / 731
B = 7-9 / 35 / 31
D = 6-8 / 25 / 31
F = 9-10 / 36 / 31
H = 9-10 / 90 / 31
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 1 – 2 DEC
RADAR.....

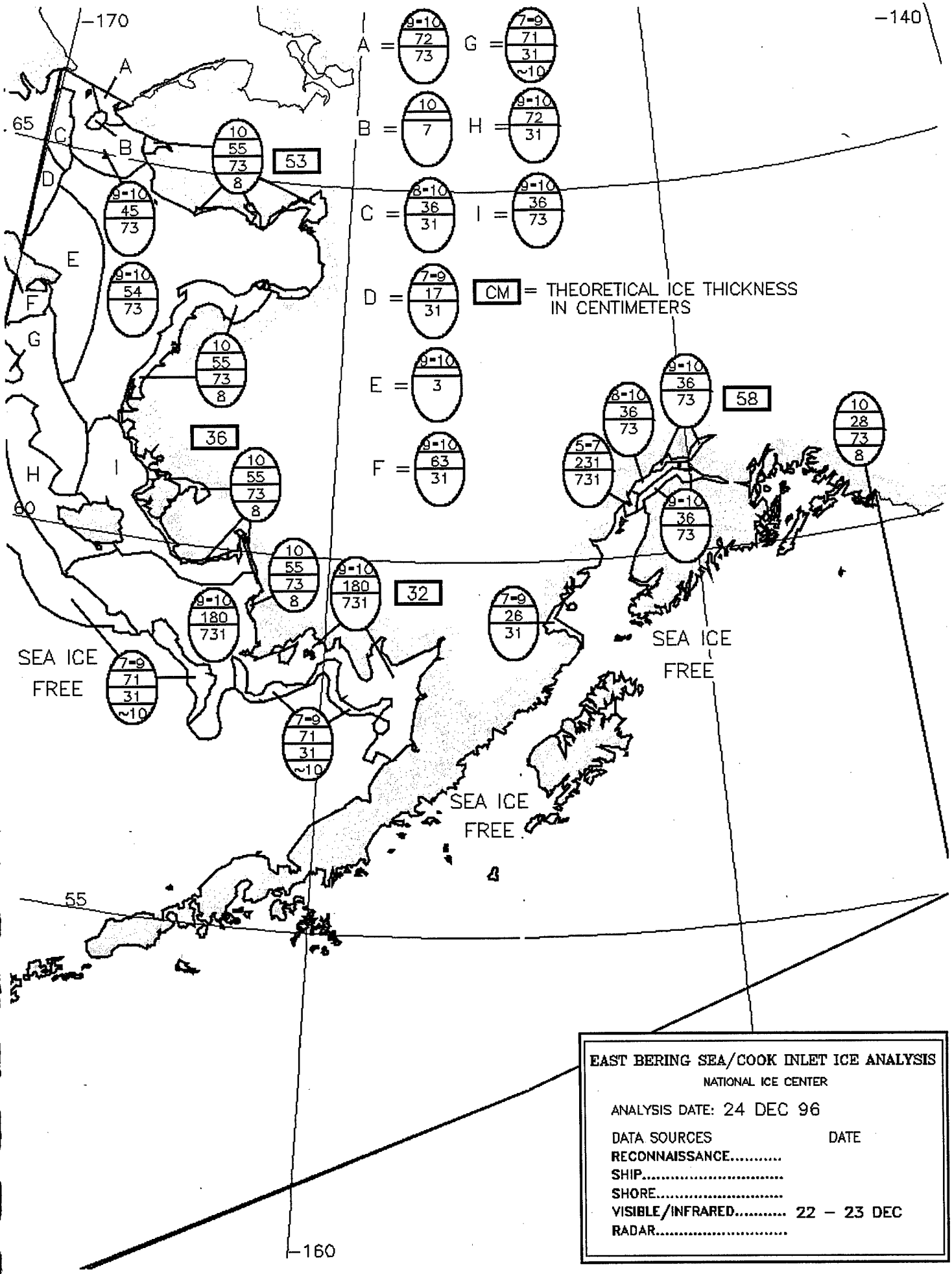

-170
-140
-160
65
60
55
A = 8-10 / 72 / 31
D = 9-10 / 90 / 31
B = 8-10 / 162 / 731
E = 9-10 / 63 / 31
C = 9-10 / 270 / 731
G = 8-10 / 72 / 31 / ~10
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
6-8 / 52 / 31 / ~10
39
10 / 28 / 73 / 8
7-9 / 26 / 31
6-8 / 1
10 / 28 / 73 / 8
7-9 / 1
10 / 3 / 8
26
7-9 / 1
7-9 / 35 / 31
8-10 / 72 / 31 / ~10
7-9 / 35 / 31
15
8-10 / 72 / 31
8-10 / 45 / 31
9-10 / 27 / 73
8-10 / 72 / 31
45
10 / 28 / 73 / 8
10 / 3 / 8
** AERIAL RECON OVER ST. LAWRENCE IS.
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 6 DEC 96
DATA SOURCES DATE
RECONNAISSANCE..... 6 DEC **
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 5 DEC
RADAR.....

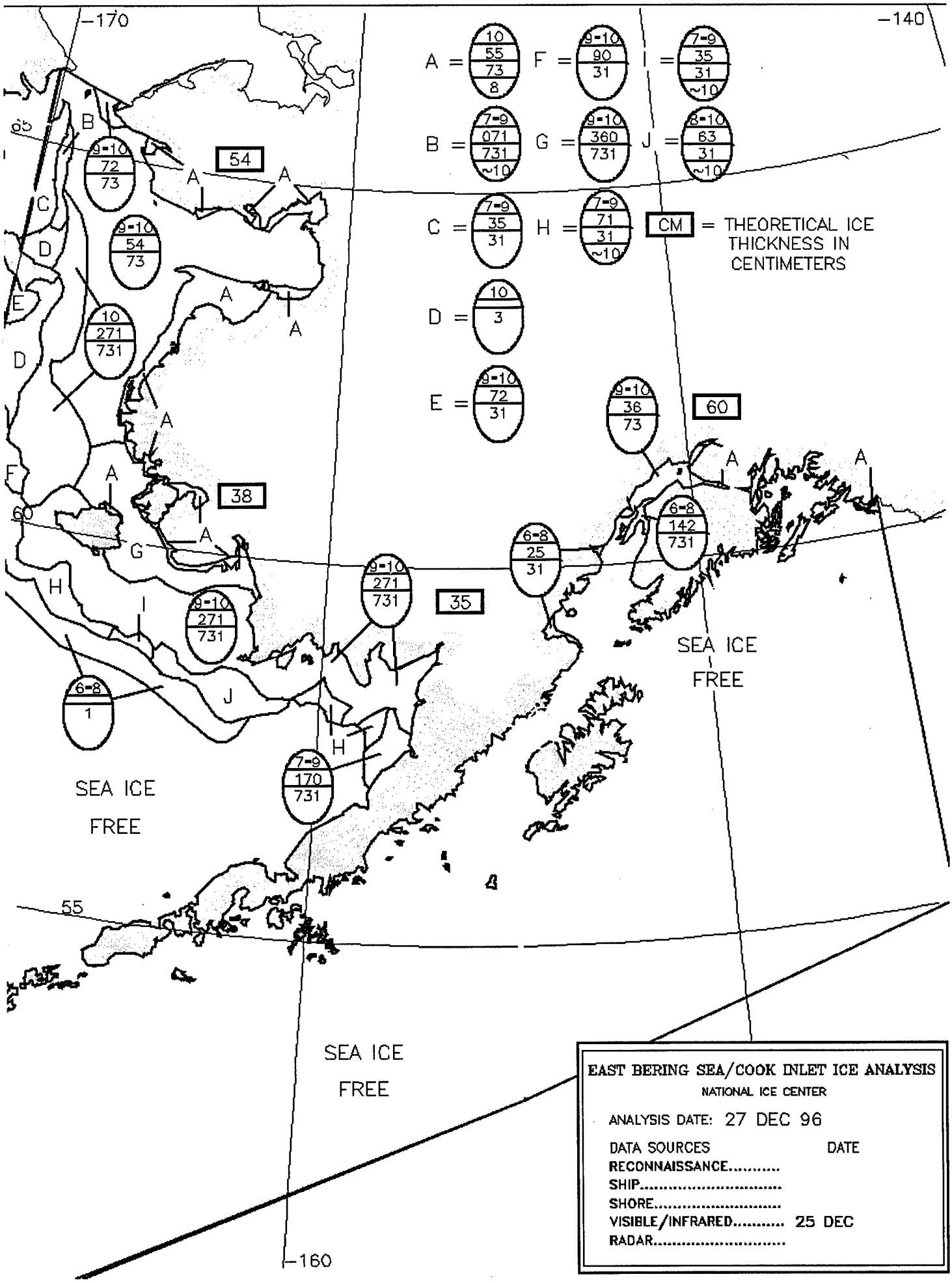

-170
-140
-160
65
60
55
A = 7-9 / 62 / 31 / ~10
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
B = 5-7 / 1
C = 10 / 46 / 73
D = 9-10 / 540 / 731
E = 9-10 / 18 / 73
43
10 / 28 / 73 / 8
9-10 / 54 / 31
9-10 / 27 / 73
7-9 / 1
10 / 28 / 73 / 8
9-10 / 81 / 31
10 / 3 / 8
29
9-10 / 81 / 31
22
7-9 / 53 / 31 / ~10
9-10 / 3
49
9-10 / 27 / 73
10 / 19 / 73 / 8
SEA ICE FREE
SEA ICE FREE
** = AREIAL RECON OVER ST. LAWRENCE IS.
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE..... 8 DEC **
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR..... 9 DEC

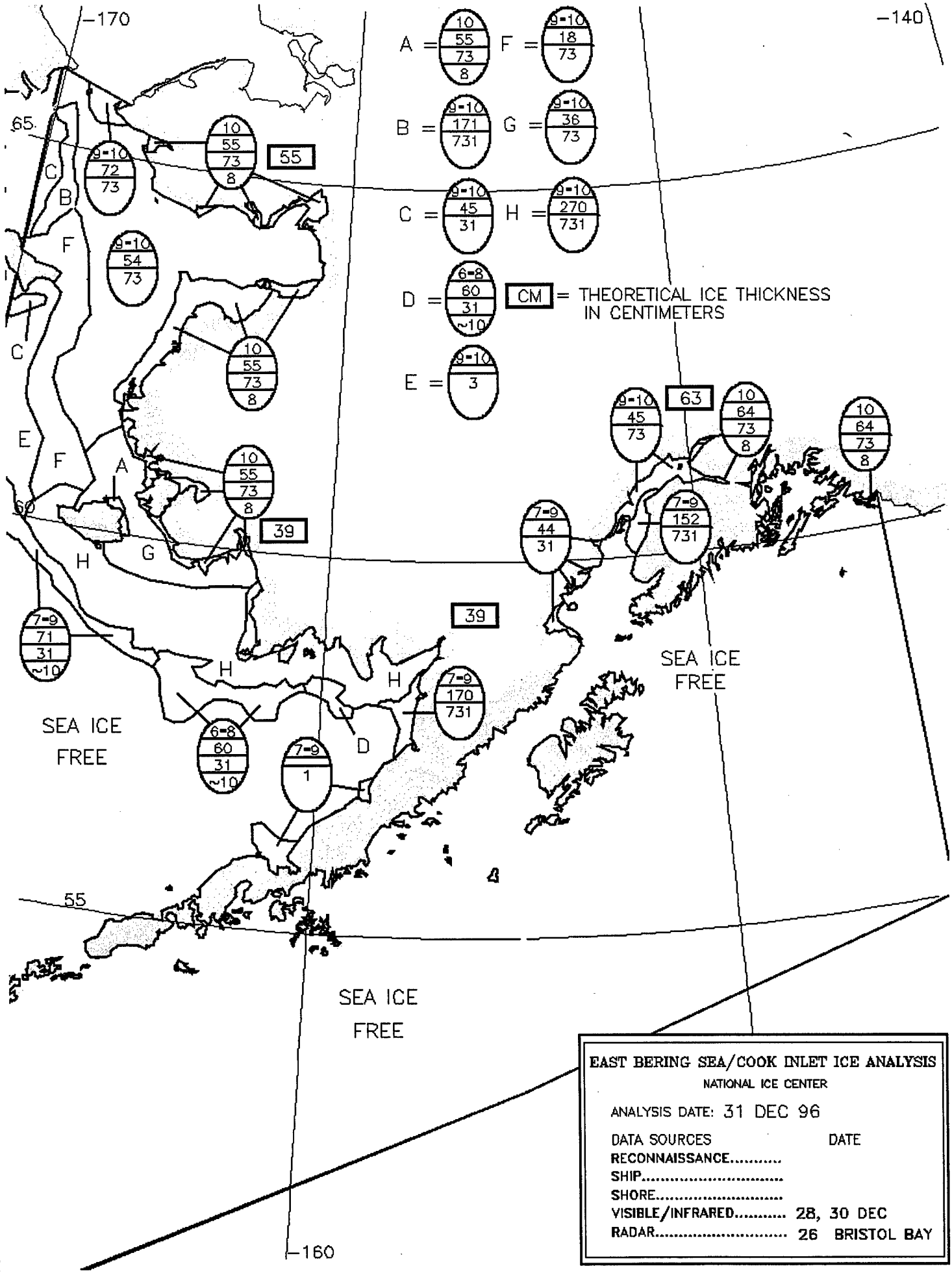

-170
-140
65
60
55
-160
A = 10 / 3 / 8
F = 6-8 / 25 / 31
B = 9-10 / 54 / 73
G = 9-10 / 63 / 31
C = 9-10 / 18 / 73
H = 10 / 46 / 73
D = 8-10 / 27 / 31
I = 5-7 / 1
E = 9-10 / 54 / 31
** RADARSAT IMAGERY OF 8-9 DEC
WAS USED TO ANALYZE AREA FROM
ST . LAWRENCE IS. TO BRISTOL BAY
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 13 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11 - 12
RADAR..... 08 - 09 **

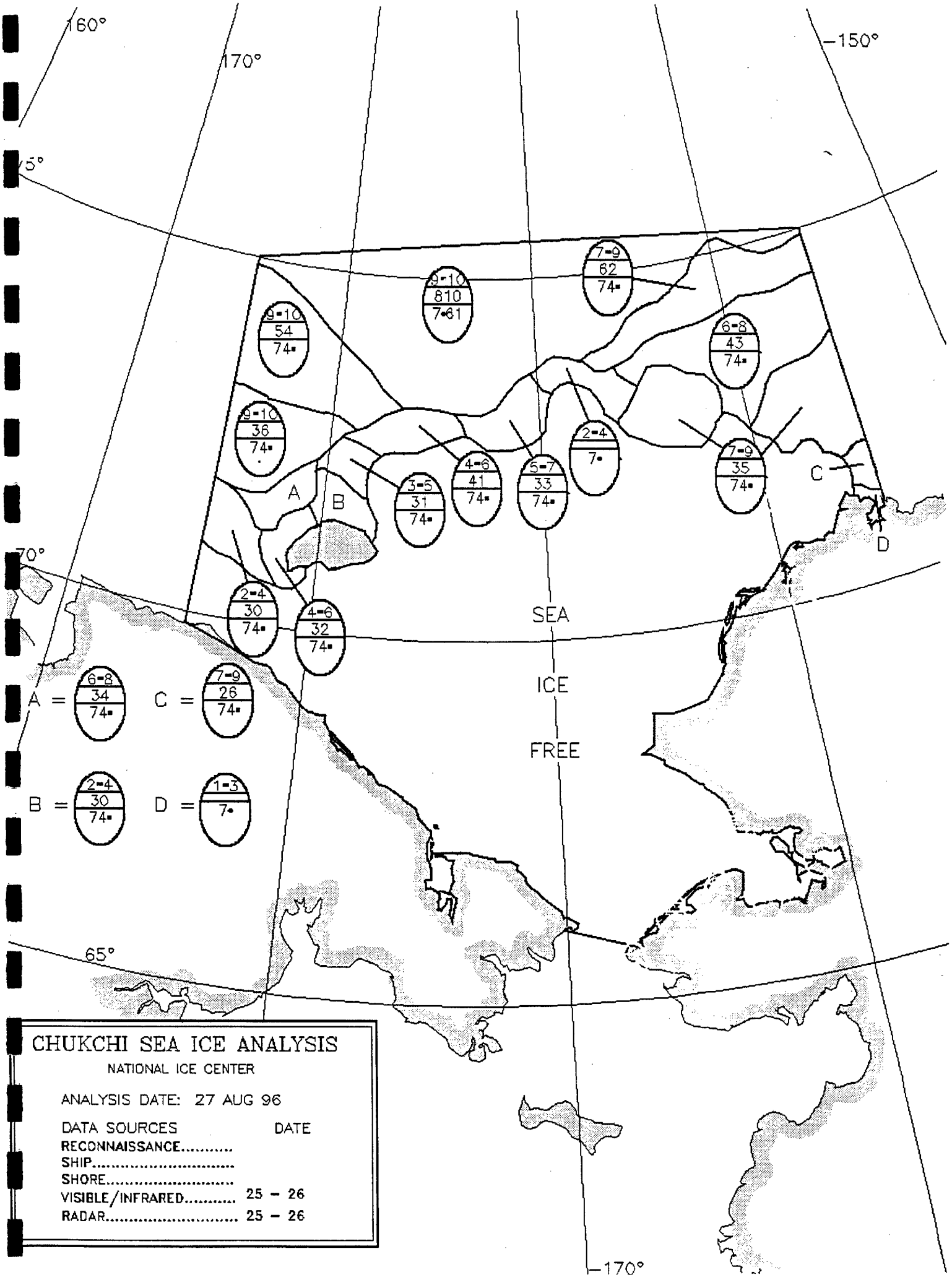

-170
-140
A = 9-10 / 63 / 73
B = 10 / 3 / 8
C = 6-8 / 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
65
60
55
-160
A
B
C
48
34
28
54
08
9-10 / 27 / 73
10 / 28 / 73 / 8
9-10 / 63 / 31
9-10 / 81 / 31
7-9 / 71 / 31
9-10 / 45 / 73
10 / 55 / 73 / 8
10 / 19 / 73 / 8
9-10 / 18 / 73
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
EAST BERING SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15 – 17
RADAR.....

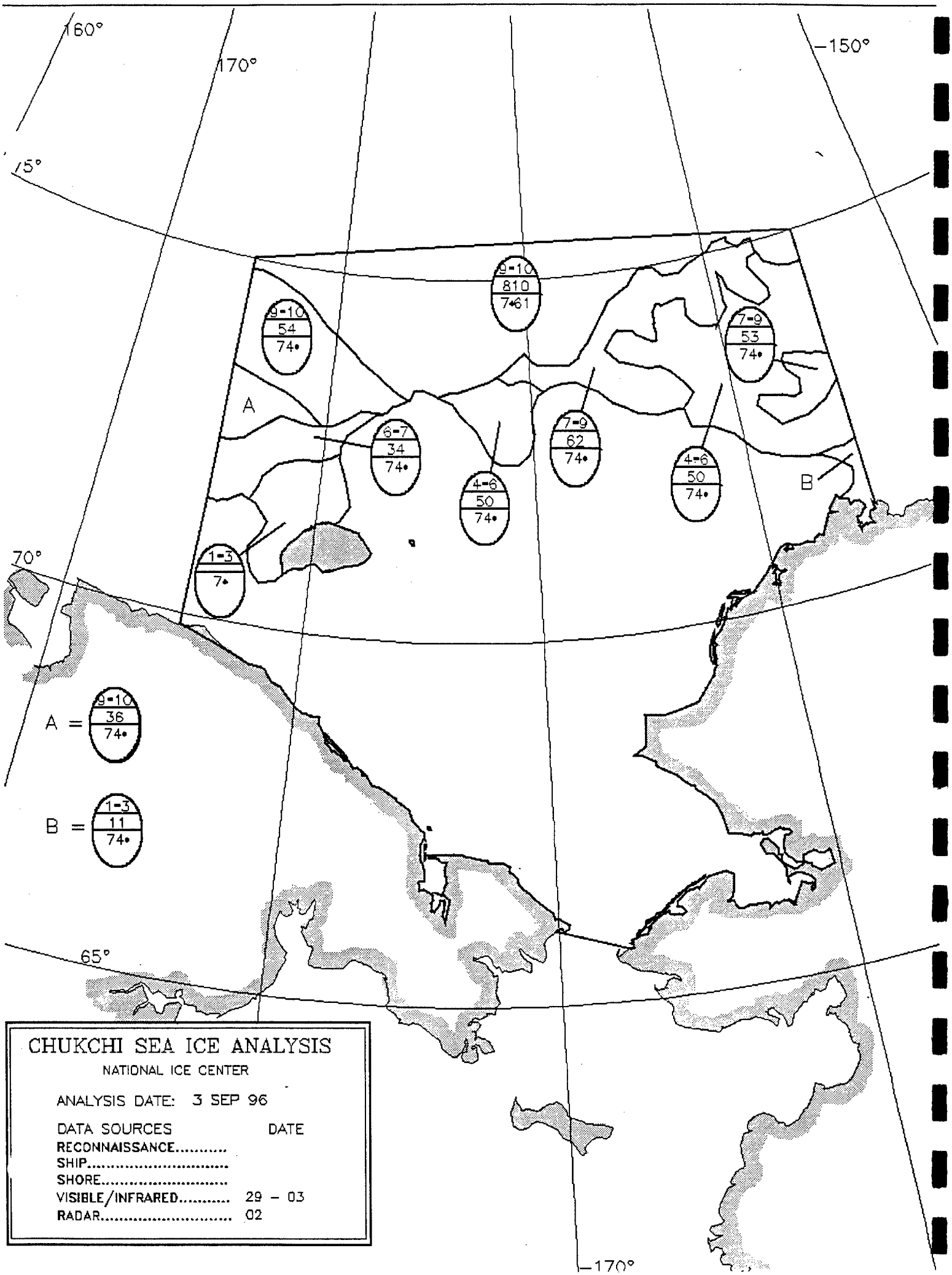

CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 / 37 / 73 / 8
B = 10 / 3 / 8
C = 6-8 / 61 / 31
D = 7-9 / 71 / 31 / ~10
E = 9-10 / 36 / 73
F = 9-10 / 180 / 731
G = 2-4 / 3
H = 5-7 / 1
I = 8-10 / 351 / 731
J = 7-9 / 26 / 31
K = 4-6 / 230 / 731 / ~10
-170
-140
-160
65
60
56
55
49
35
28
09
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
** CORRECTED COPY TO UPDATE COOK INLET ANALYSIS
EAST BERING SEA/COOK INLET ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 20 DEC 96 **
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 18 – 19 DEC
RADAR..... 17 (COOK INLET)

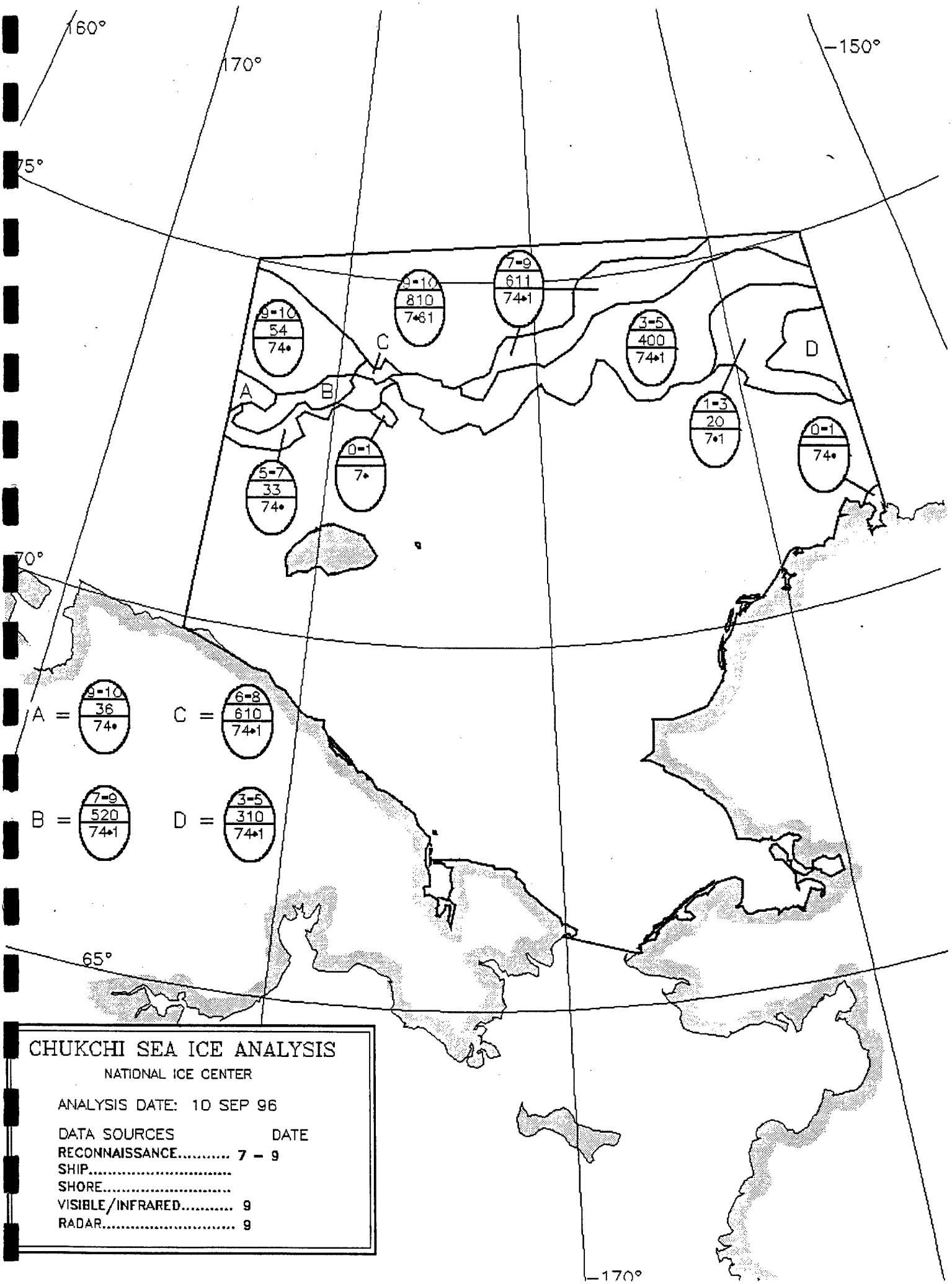

-170
-140
-160
65
60
55
A
B
C
D
E
F
G
H
I
A = 9-10 / 72 / 73
G = 7-9 / 71 / 31 / ~10
B = 10 / 7
H = 9-10 / 72 / 31
C = 8-10 / 36 / 31
I = 9-10 / 36 / 73
D = 7-9 / 17 / 31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
E = 9-10 / 3
F = 9-10 / 63 / 31
10 / 55 / 73 / 8
53
9-10 / 45 / 73
9-10 / 54 / 73
36
9-10 / 180 / 731
32
7-9 / 26 / 31
9-10 / 36 / 73
58
8-10 / 36 / 73
5-7 / 231 / 731
10 / 28 / 73 / 8
SEA ICE FREE
7-9 / 71 / 31 / ~10
SEA ICE FREE
SEA ICE FREE
EAST BERING SEA/COOK INLET ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 – 23 DEC
RADAR.....


-170
-140
-160
65
60
55
A = 10 / 55 / 73 / 8
B = 7-9 / 071 / 731 / ~10
C = 7-9 / 35 / 31
D = 10 / 3
E = 9-10 / 72 / 31
F = 9-10 / 90 / 31
G = 9-10 / 360 / 731
H = 7-9 / 71 / 31 / ~10
I = 7-9 / 35 / 31 / ~10
J = 8-10 / 63 / 31 / ~10
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
9-10 / 72 / 73
54
9-10 / 54 / 73
10 / 271 / 731
38
9-10 / 271 / 731
6-8 / 1
9-10 / 271 / 731
35
6-8 / 25 / 31
9-10 / 36 / 73
60
6-8 / 142 / 731
7-9 / 170 / 731
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
EAST BERING SEA/COOK INLET ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 DEC
RADAR.....


-170
-140
-160
65
60
55
A = 10 / 55 / 73 / 8
B = 9-10 / 171 / 731
C = 9-10 / 45 / 31
D = 6-8 / 60 / 31 / ~10
E = 9-10 / 3
F = 9-10 / 18 / 73
G = 9-10 / 36 / 73
H = 9-10 / 270 / 731
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
9-10 / 72 / 73
9-10 / 54 / 73
10 / 55 / 73 / 8
55
39
39
63
9-10 / 45 / 73
10 / 64 / 73 / 8
7-9 / 44 / 31
7-9 / 152 / 731
7-9 / 71 / 31 / ~10
7-9 / 170 / 731
6-8 / 60 / 31 / ~10
7-9 / 1
SEA ICE FREE
SEA ICE FREE
SEA ICE FREE
EAST BERING SEA/COOK INLET ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28, 30 DEC
RADAR..... 26 BRISTOL BAY


160°
170°
-150°
75°
70°
65°
-170°
9-10
810
7-61
7-9
62
74-
9-10
54
74-
6-8
43
74-
9-10
36
74-
2-4
7-
7-9
35
74-
4-6
41
74-
5-7
33
74-
3-5
31
74-
A
B
C
D
2-4
30
74-
4-6
32
74-
SEA
ICE
FREE
A = 6-8 / 34 / 74-
C = 7-9 / 26 / 74-
B = 2-4 / 30 / 74-
D = 1-3 / 7-
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 AUG 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 - 26
RADAR..... 25 - 26


160°
170°
-150°
75°
70°
65°
-170°
9-10
810
7•61
9-10
54
74•
7-9
53
74•
A
6-7
34
74•
7-9
62
74•
4-6
50
74•
4-6
50
74•
B
1-3
7•
A = 9-10 / 36 / 74•
B = 1-3 / 11 / 74•
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 29 - 03
RADAR..... 02

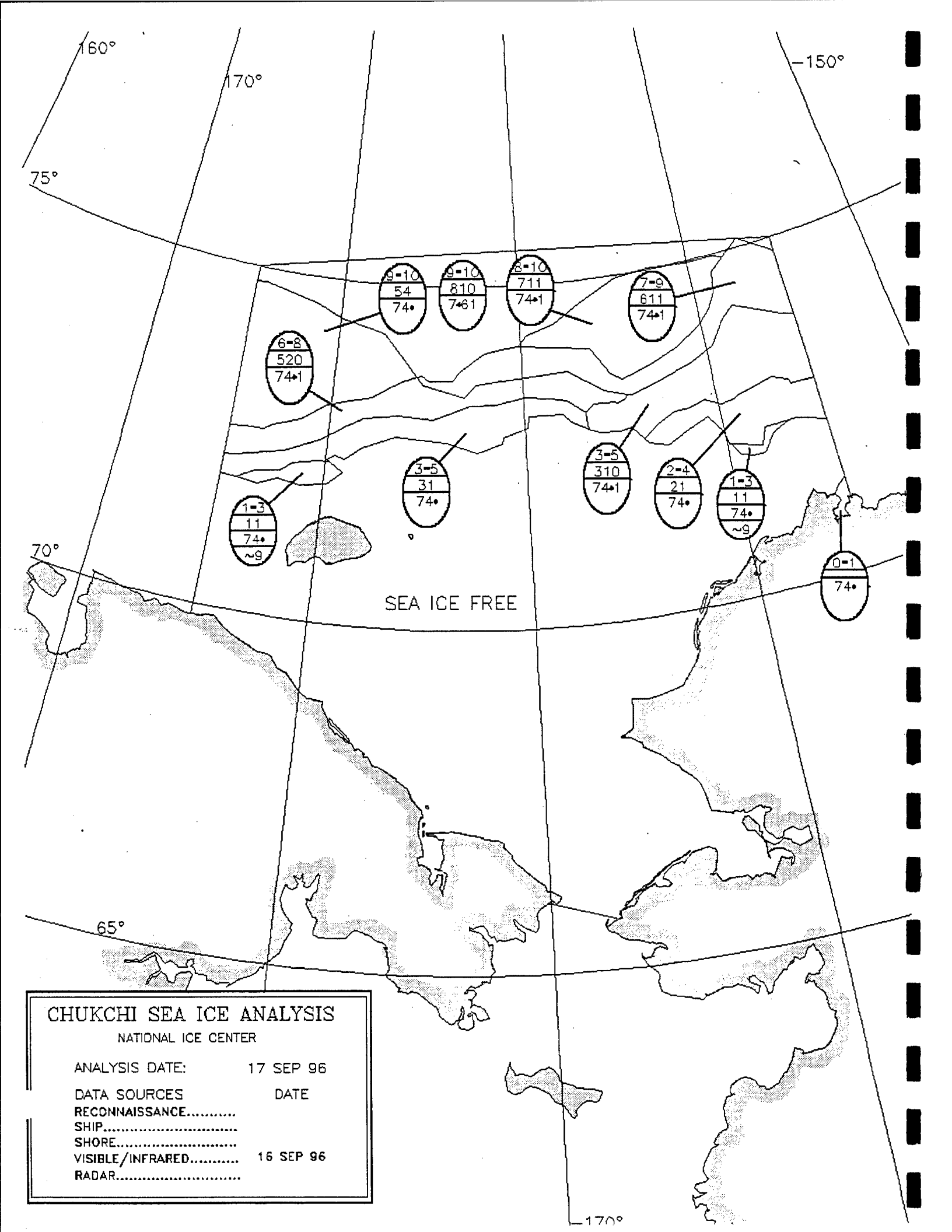


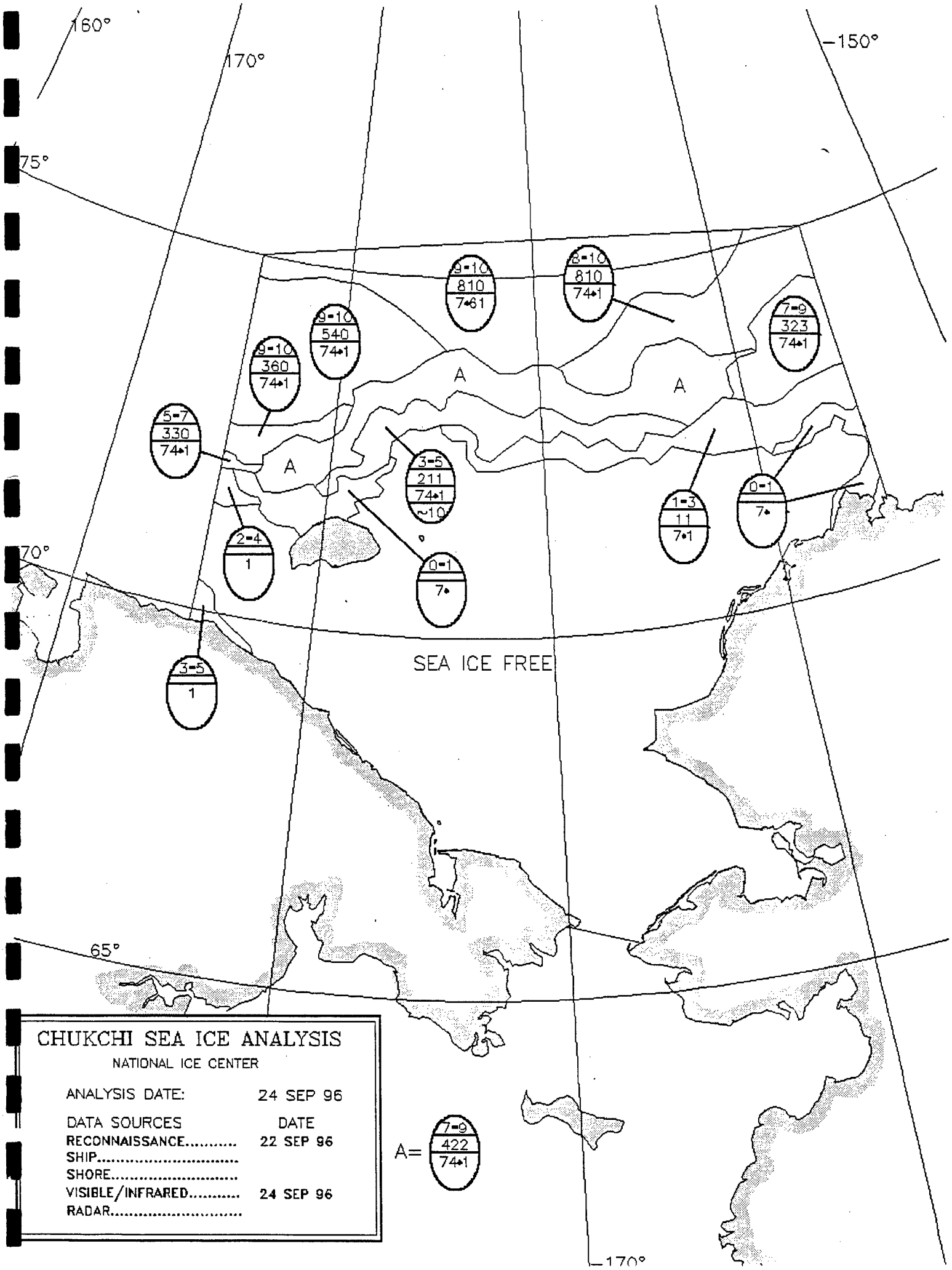
CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 10 SEP 96

DATA SOURCES	DATE
RECONNAISSANCE	7 – 9
SHIP	
SHORE	
VISIBLE/INFRARED	9
RADAR	9

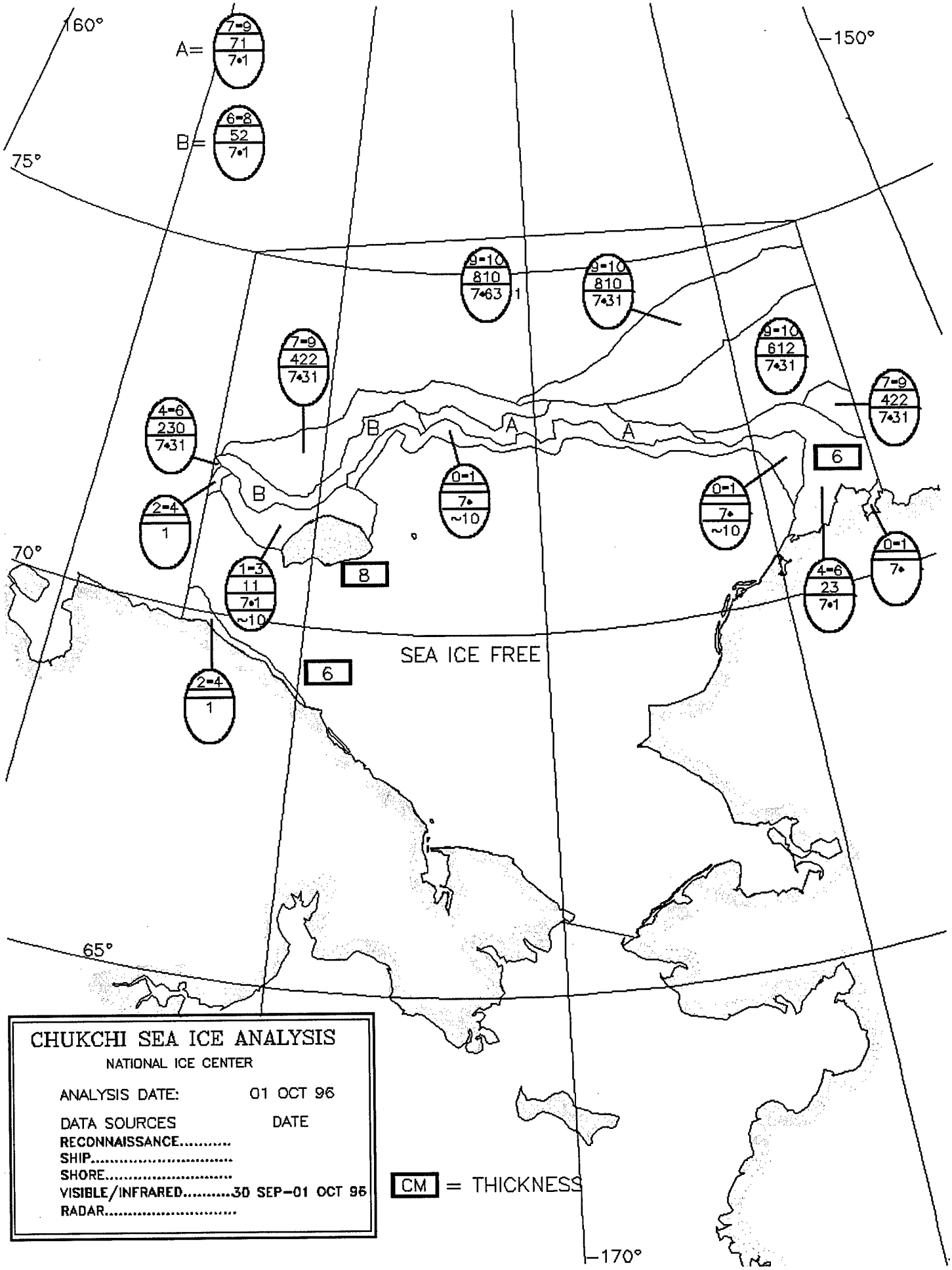

160°
170°
-150°
75°
70°
65°
-170°
9-10
54
74•
9-10
810
7•61
8-10
711
74•1
7-9
611
74•1
6-8
520
74•1
3-5
31
74•
3-5
310
74•1
2-4
21
74•
1-3
11
74•
~9
1-3
11
74•
~9
0-1
74•
SEA ICE FREE
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16 SEP 96
RADAR.....

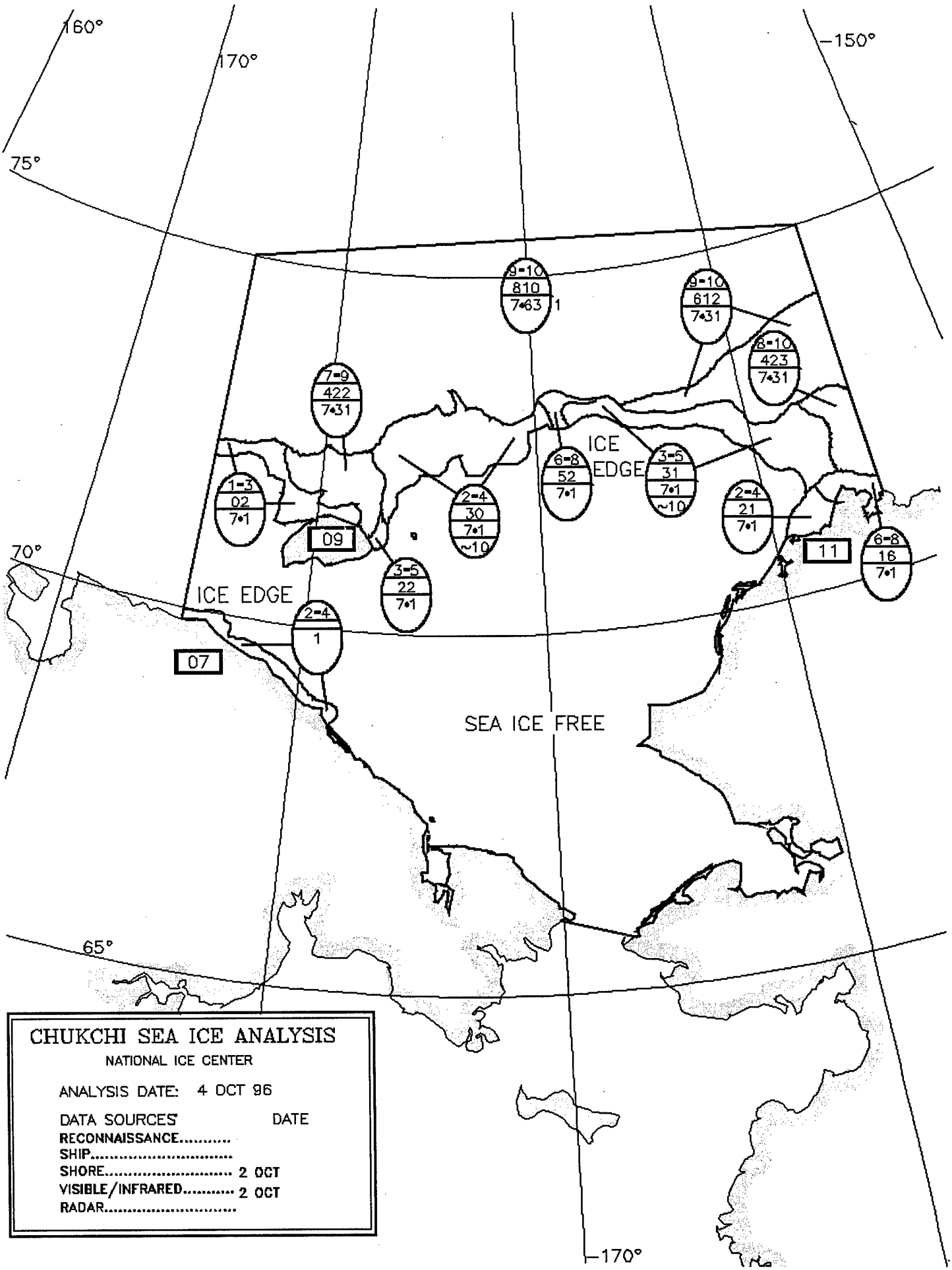


CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE:	24 SEP 96
DATA SOURCES	DATE
RECONNAISSANCE.....	22 SEP 96
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	24 SEP 96
RADAR.....	


160°
150°
75°
70°
65°
170°
A=
7-9
71
7•1
B=
6-8
52
7•1
9-10
810
7•63
1
9-10
810
7•31
9-10
612
7•31
7-9
422
7•31
7-9
422
7•31
4-6
230
7•31
2-4
1
1-3
11
7•1
~10
0-1
7•
~10
0-1
7•
~10
0-1
7•
4-6
23
7•1
2-4
1
A
A
B
B
6
8
6
SEA ICE FREE
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....30 SEP-01 OCT 96
RADAR.....
CM = THICKNESS

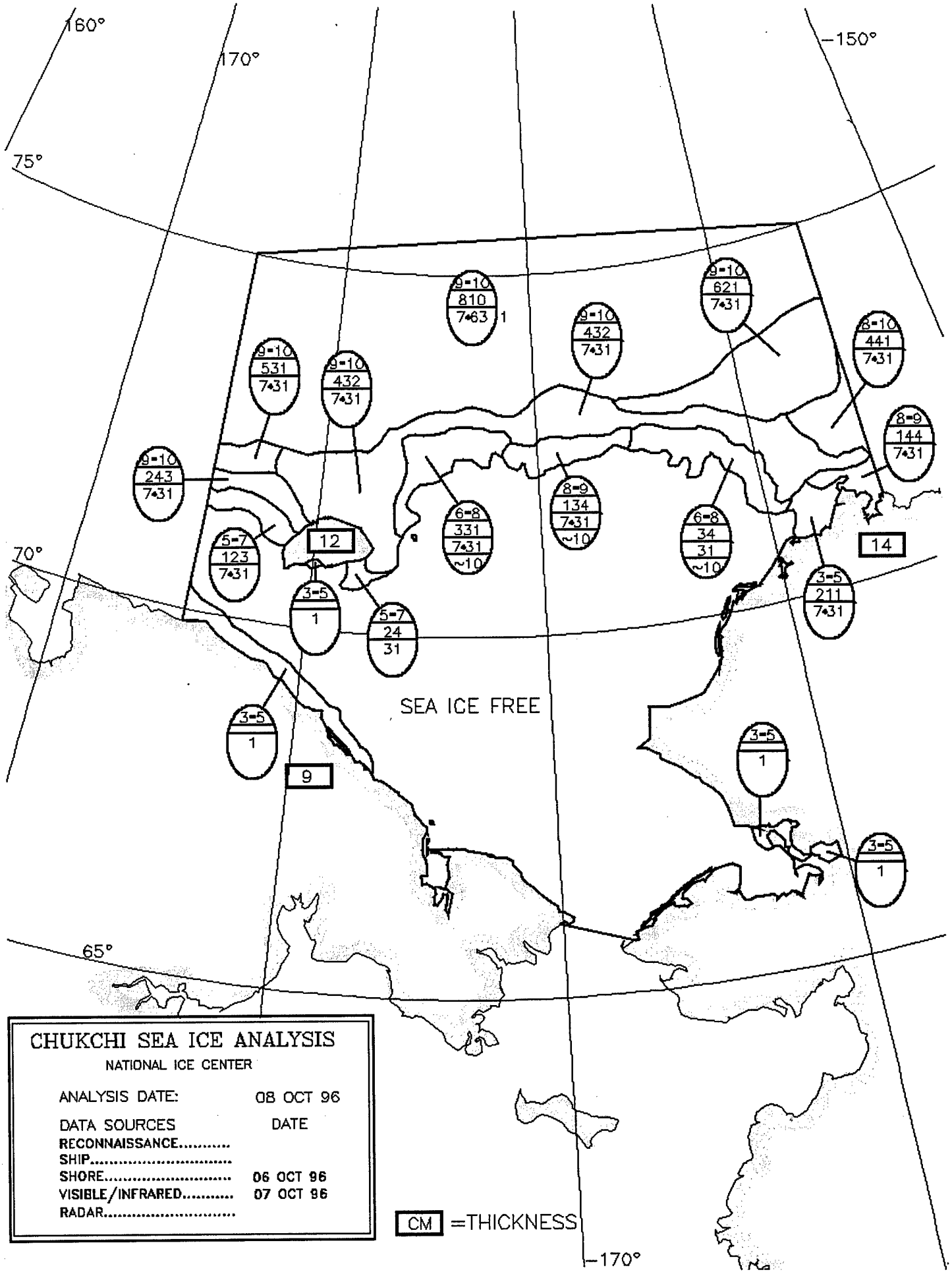


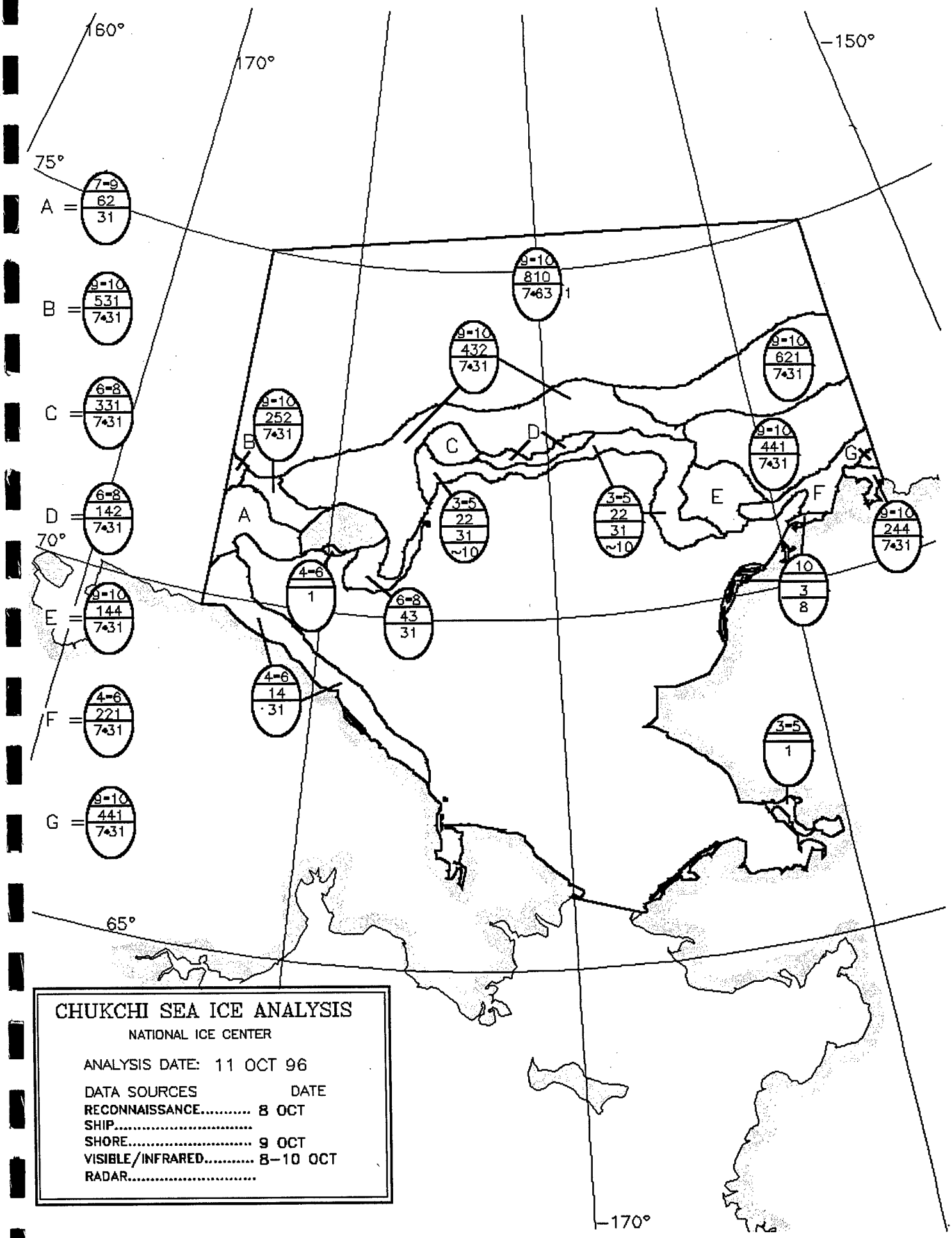
CHUKCHI SEA ICE ANALYSIS

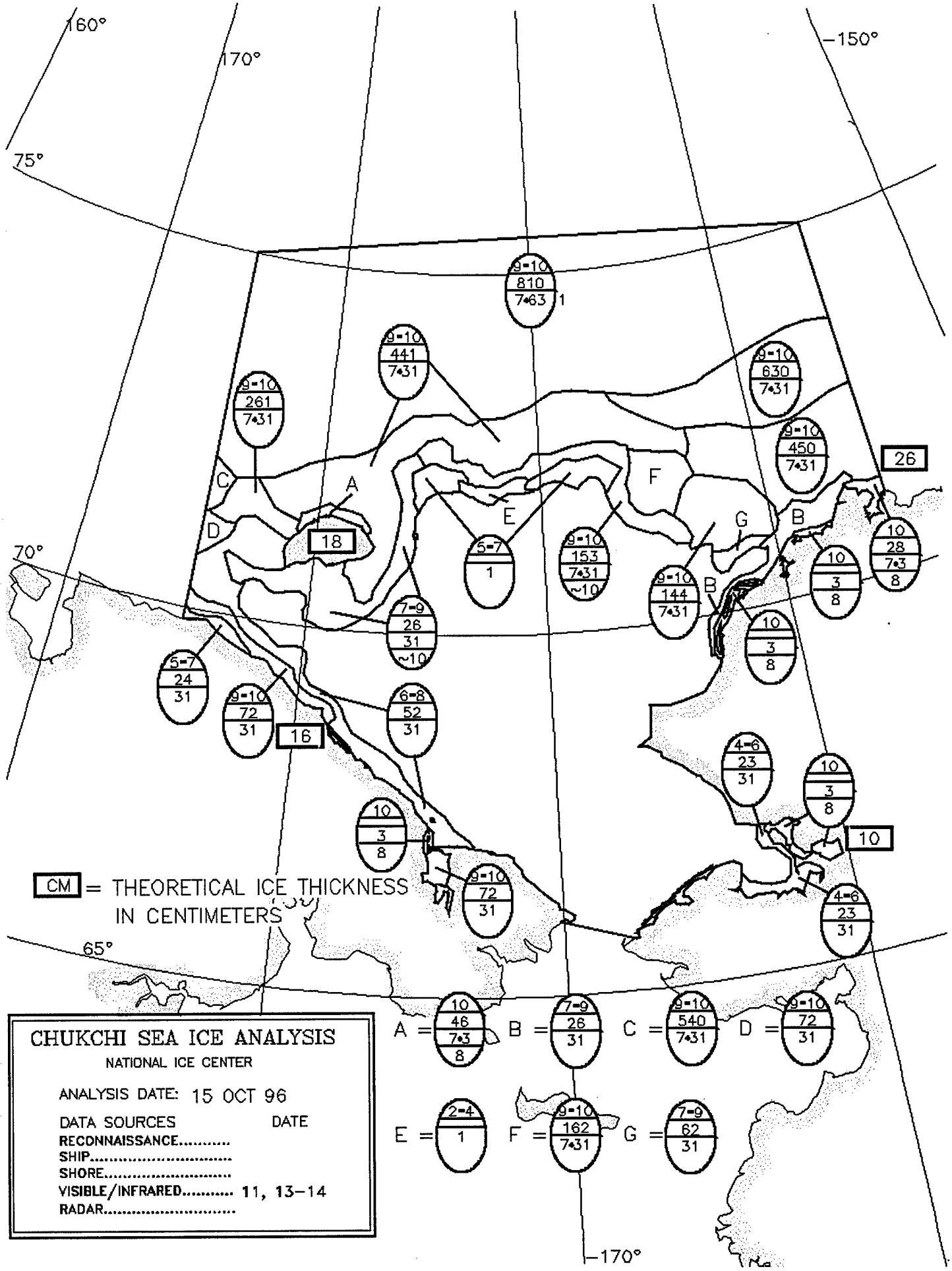
NATIONAL ICE CENTER

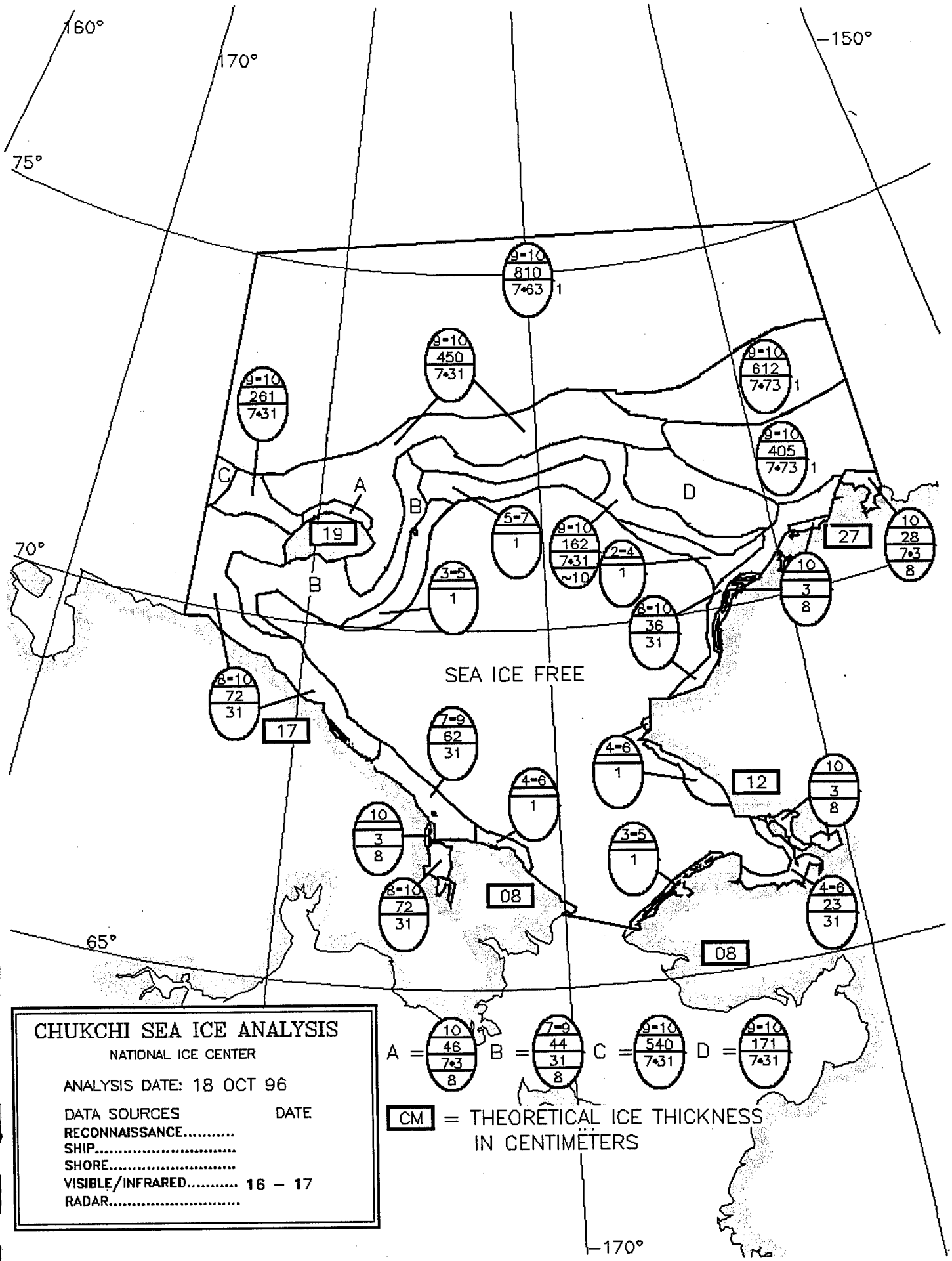
ANALYSIS DATE: 4 OCT 96

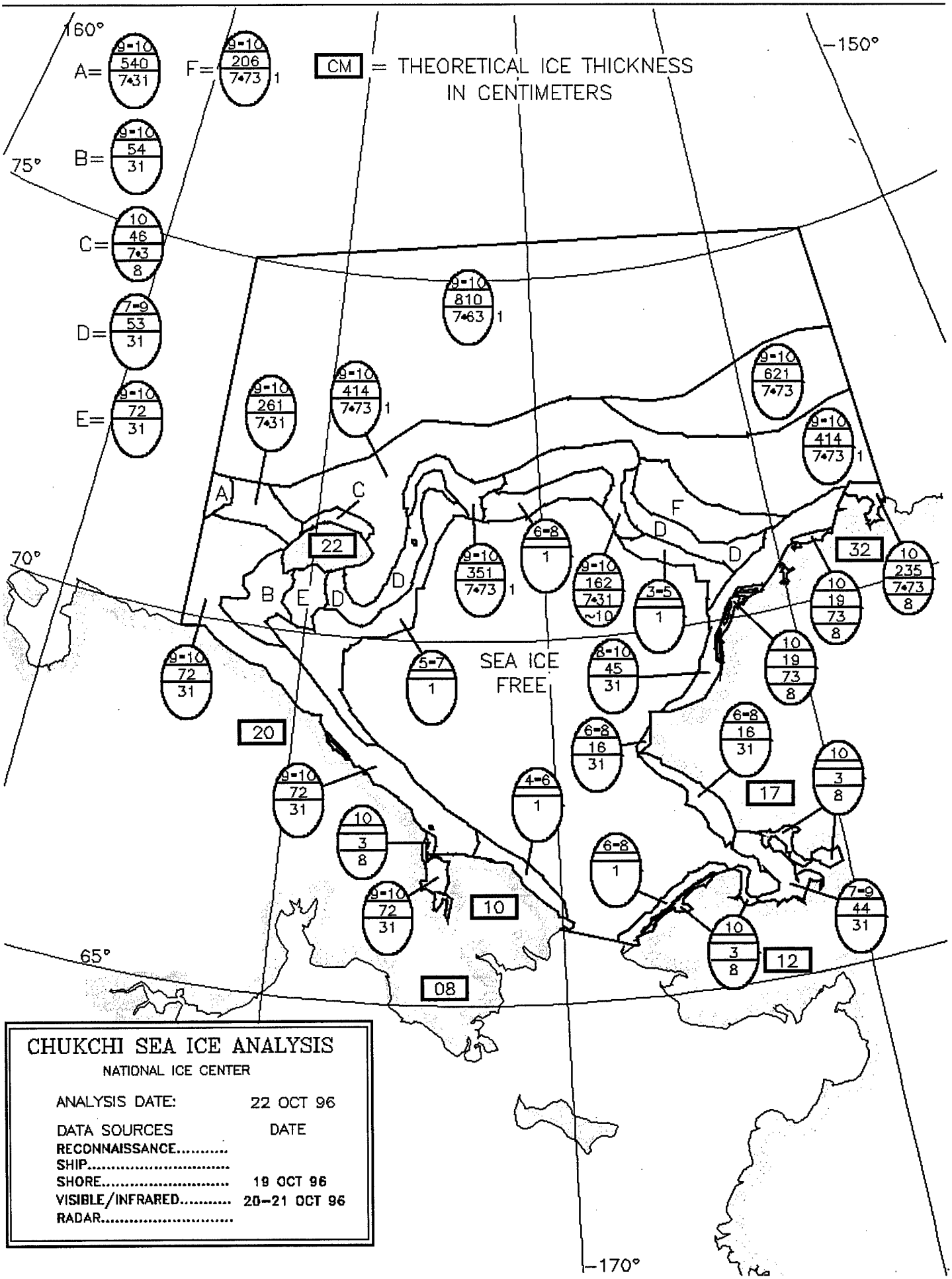
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	2 OCT
VISIBLE/INFRARED.....	2 OCT
RADAR.....	

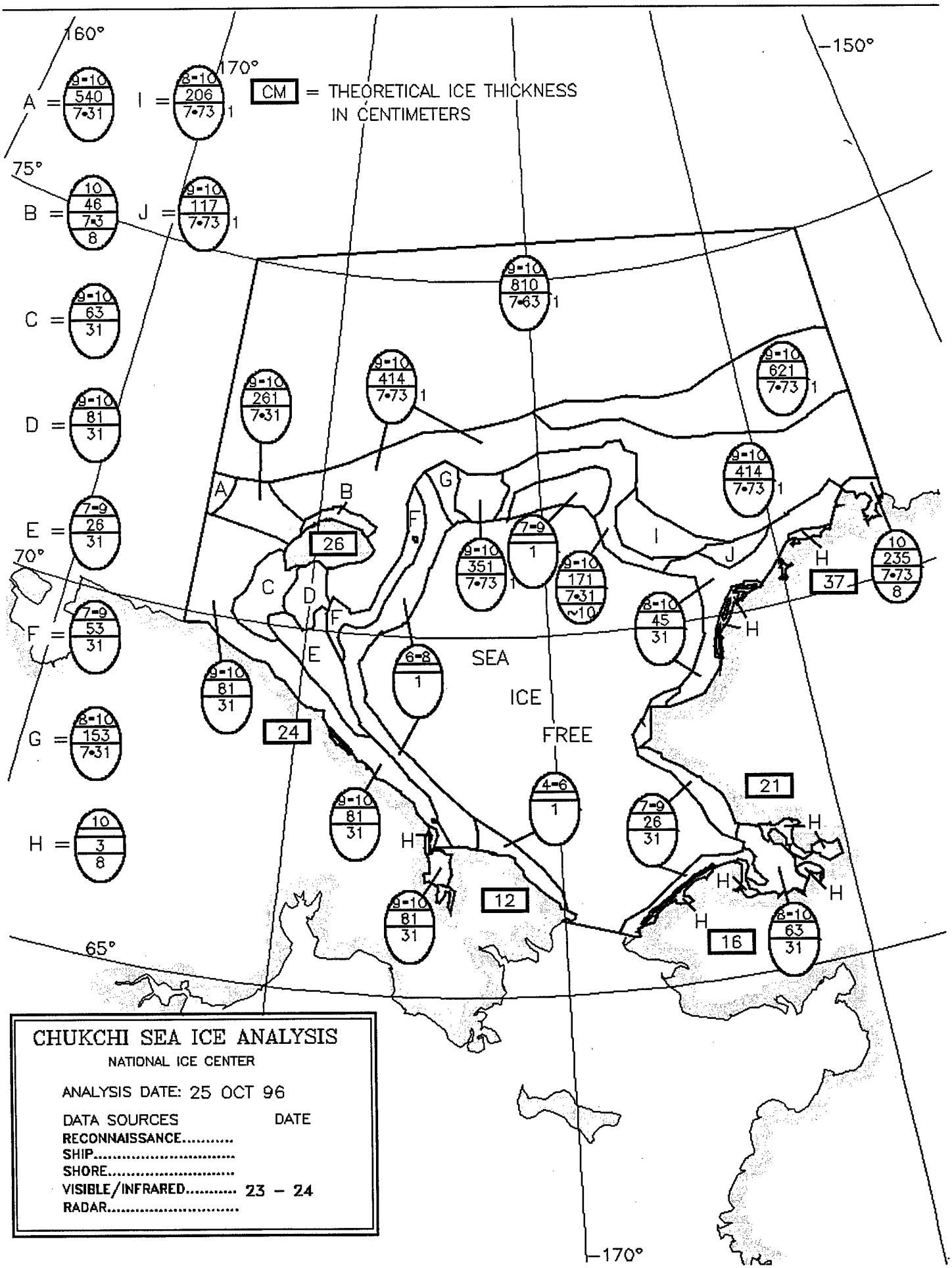

160°
170°
-150°
75°
70°
65°
-170°
9-10
810
7•63
1
9-10
621
7•31
9-10
432
7•31
8-10
441
7•31
9-10
531
7•31
9-10
432
7•31
8-9
144
7•31
9-10
243
7•31
8-9
134
7•31
~10
6-8
331
7•31
~10
6-8
34
31
~10
5-7
123
7•31
12
14
3-5
211
7•31
3-5
1
5-7
24
31
SEA ICE FREE
3-5
1
9
3-5
1
3-5
1
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 08 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 06 OCT 96
VISIBLE/INFRARED..... 07 OCT 96
RADAR.....
CM =THICKNESS


160°
170°
-150°
75°
70°
65°
-170°
A = 7-9 / 62 / 31
B = 9-10 / 531 / 7•31
C = 6-8 / 331 / 7•31
D = 6-8 / 142 / 7•31
E = 9-10 / 144 / 7•31
F = 4-6 / 221 / 7•31
G = 9-10 / 441 / 7•31
9-10 / 810 / 7•63 1
9-10 / 432 / 7•31
9-10 / 621 / 7•31
9-10 / 252 / 7•31
9-10 / 441 / 7•31
3-5 / 22 / 31 / ~10
3-5 / 22 / 31 / ~10
9-10 / 244 / 7•31
4-6 / 1
6-8 / 43 / 31
10 / 3 / 8
4-6 / 14 / 31
3-5 / 1
A
B
C
D
E
F
G
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 11 OCT 96
DATA SOURCES DATE
RECONNAISSANCE..... 8 OCT
SHIP.....
SHORE..... 9 OCT
VISIBLE/INFRARED..... 8-10 OCT
RADAR.....


160°
170°
-150°
75°
70°
65°
-170°
9-10 810 7•63 1
9-10 441 7•31
9-10 261 7•31
9-10 630 7•31
9-10 450 7•31
26
C
A
D
18
E
F
G
B
5-7 1
9-10 153 7•31 ~10
9-10 144 7•31
B
10 28 7•3 8
10 3 8
7-9 26 31 ~10
10 3 8
5-7 24 31
9-10 72 31
16
6-8 52 31
4-6 23 31
10 3 8
10
10 3 8
9-10 72 31
4-6 23 31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 46 7•3 8
B = 7-9 26 31
C = 9-10 540 7•31
D = 9-10 72 31
E = 2-4 1
F = 9-10 162 7•31
G = 7-9 62 31
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11, 13-14
RADAR.....


160°
170°
150°
75°
70°
65°
170°
SEA ICE FREE
9-10 810 7•63 1
9-10 450 7•31
9-10 261 7•31
9-10 612 7•73 1
9-10 405 7•73 1
5-7 1
9-10 162 7•31 ~10
2-4 1
3-5 1
8-10 36 31
10 28 7•3 8
10 3 8
8-10 72 31
7-9 62 31
4-6 1
4-6 1
10 3 8
3-5 1
8-10 72 31
4-6 23 31
19
17
27
12
08
08
A
B
C
D
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 18 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16 – 17
RADAR.....
A = 10 46 7•3 8
B = 7-9 44 31 8
C = 9-10 540 7•31
D = 9-10 171 7•31
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS


CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
160°
150°
75°
70°
65°
170°
A= 9-10 / 540 / 7•31
F= 9-10 / 206 / 7•73 1
B= 9-10 / 54 / 31
C= 10 / 46 / 7•3 / 8
D= 7-9 / 53 / 31
E= 9-10 / 72 / 31
9-10 / 810 / 7•63 1
9-10 / 261 / 7•31
9-10 / 414 / 7•73 1
9-10 / 621 / 7•73
9-10 / 414 / 7•73 1
A
C
22
B
E
D
D
9-10 / 351 / 7•73 1
6-8 / 1
9-10 / 162 / 7•31 ~10
3-5 / 1
F
D
D
32
10 / 235 / 7•73 / 8
10 / 19 / 73 / 8
10 / 19 / 73 / 8
9-10 / 72 / 31
5-7 / 1
SEA ICE FREE
8-10 / 45 / 31
20
6-8 / 16 / 31
6-8 / 16 / 31
17
10 / 3 / 8
9-10 / 72 / 31
4-6 / 1
10 / 3 / 8
6-8 / 1
9-10 / 72 / 31
10
7-9 / 44 / 31
10 / 3 / 8
12
08
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 19 OCT 96
VISIBLE/INFRARED..... 20-21 OCT 96
RADAR.....

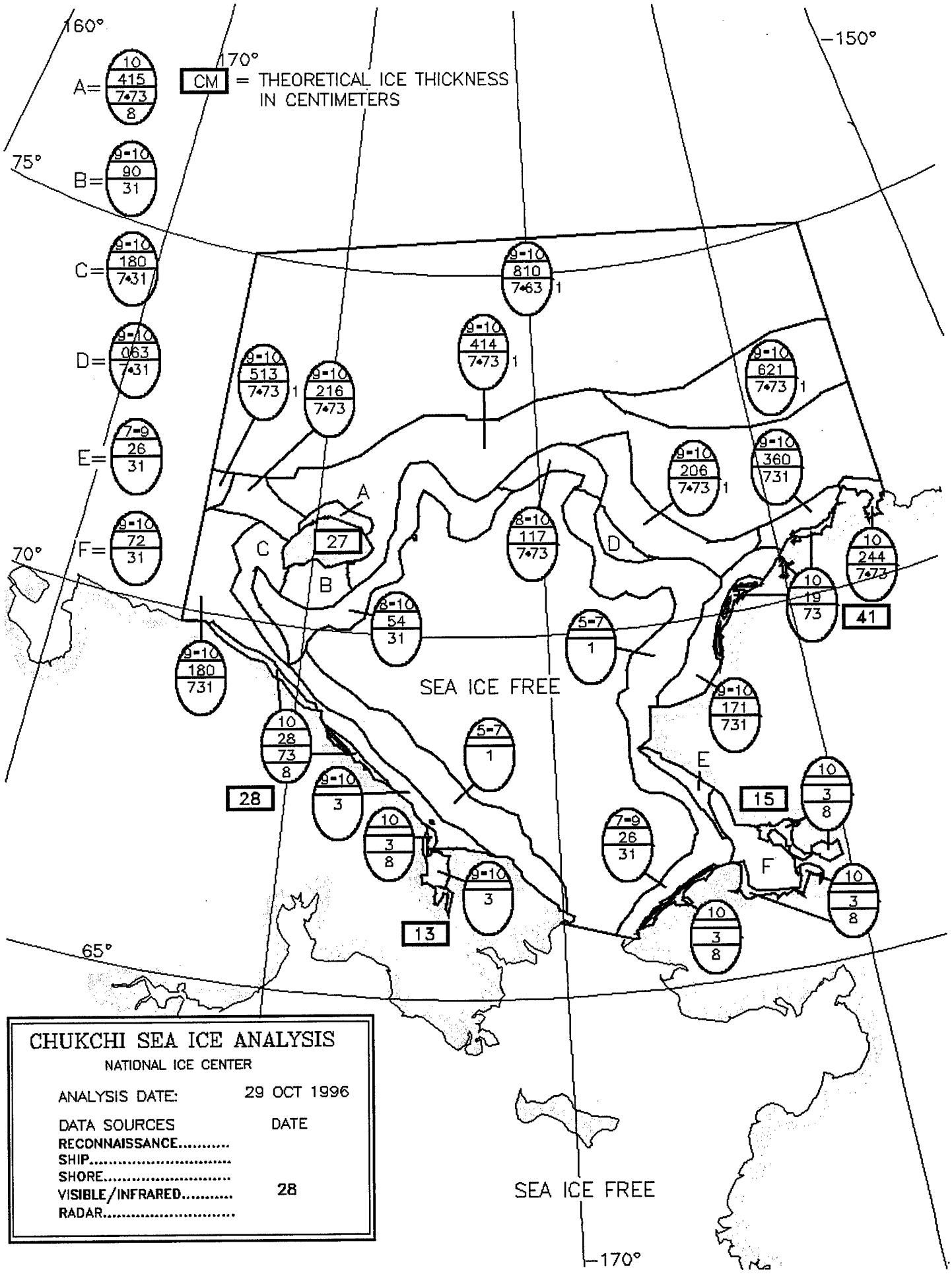


CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 25 OCT 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	23 – 24
RADAR.....	

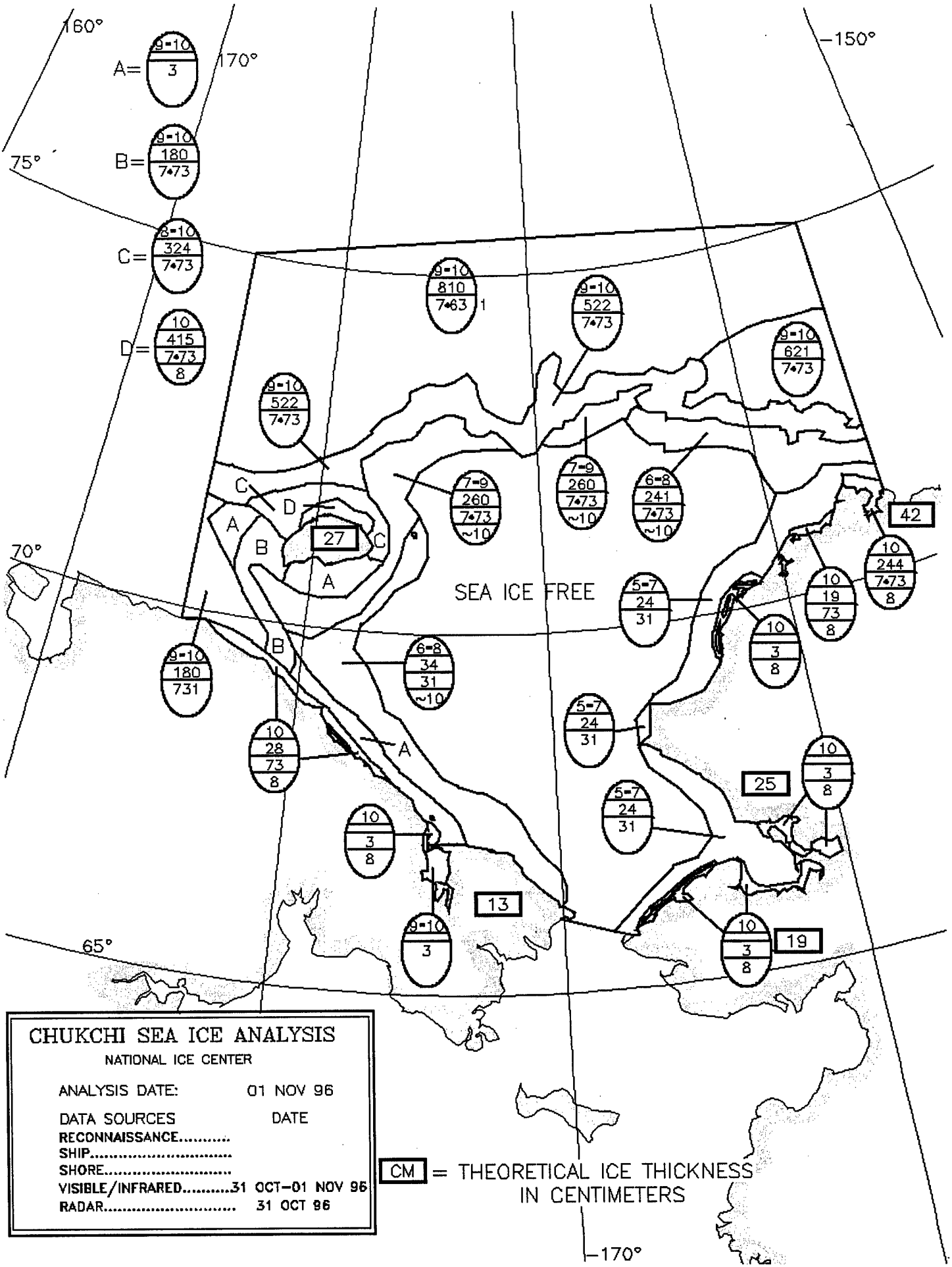


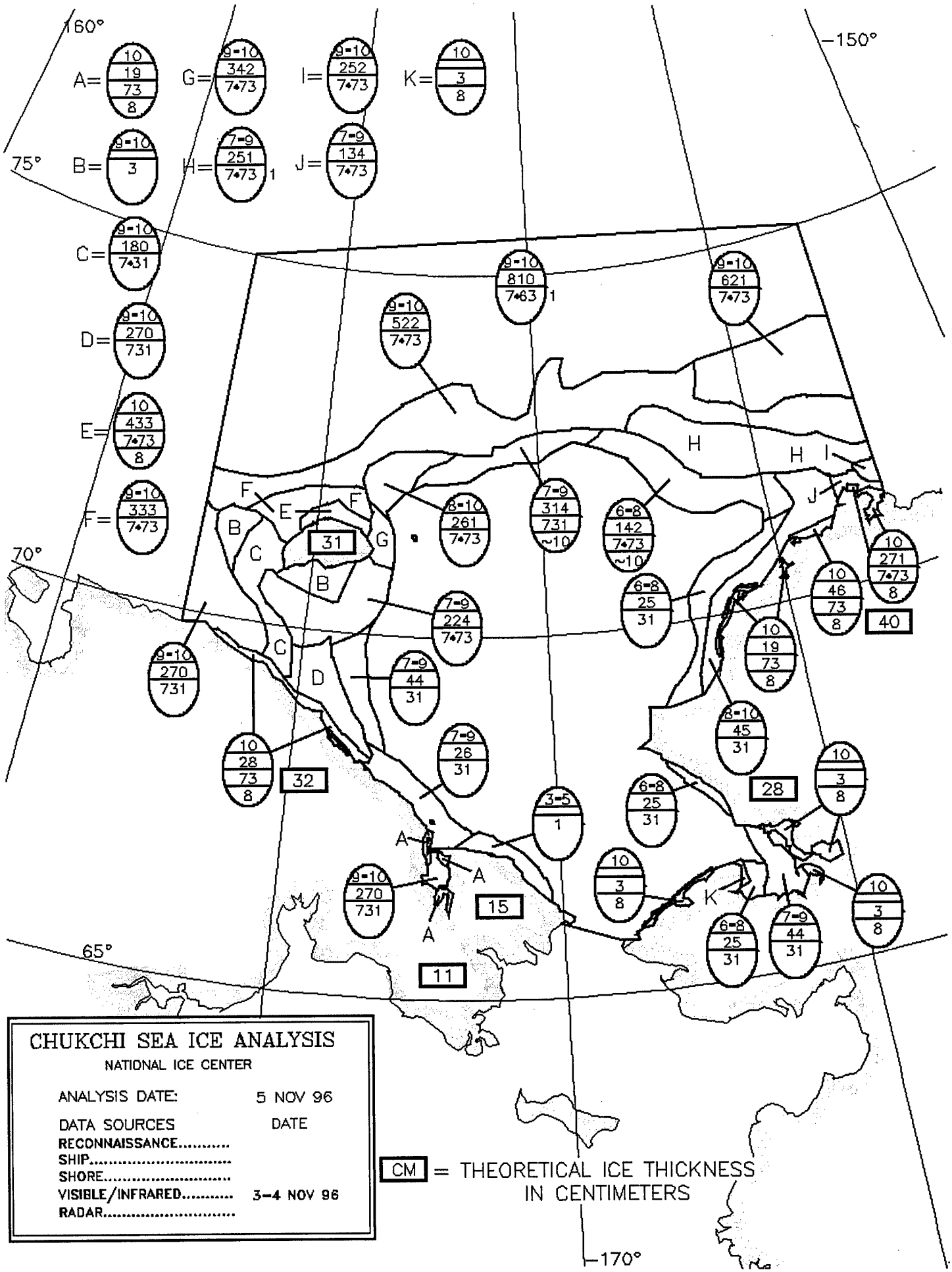
CHUKCHI SEA ICE ANALYSIS

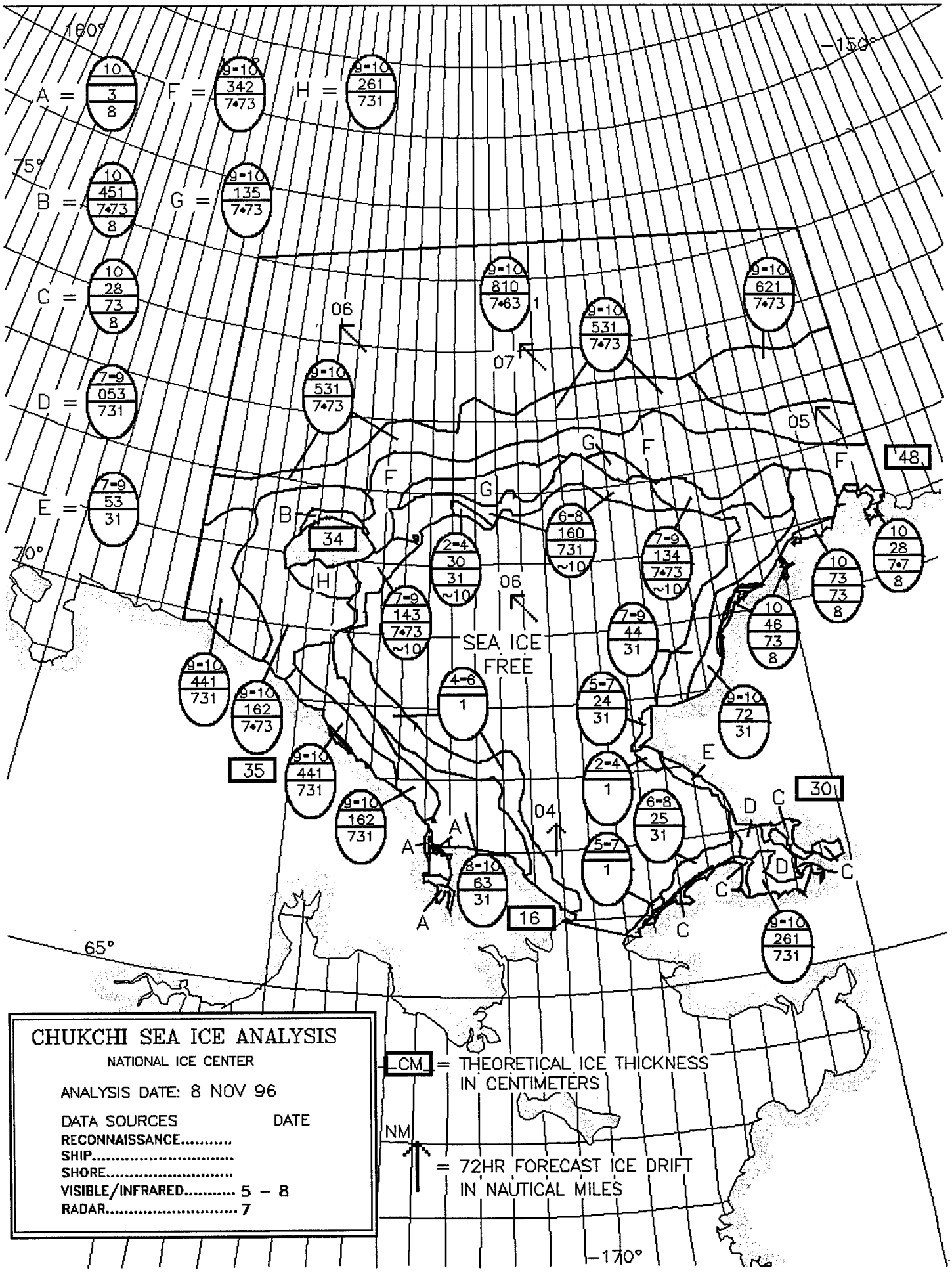
NATIONAL ICE CENTER

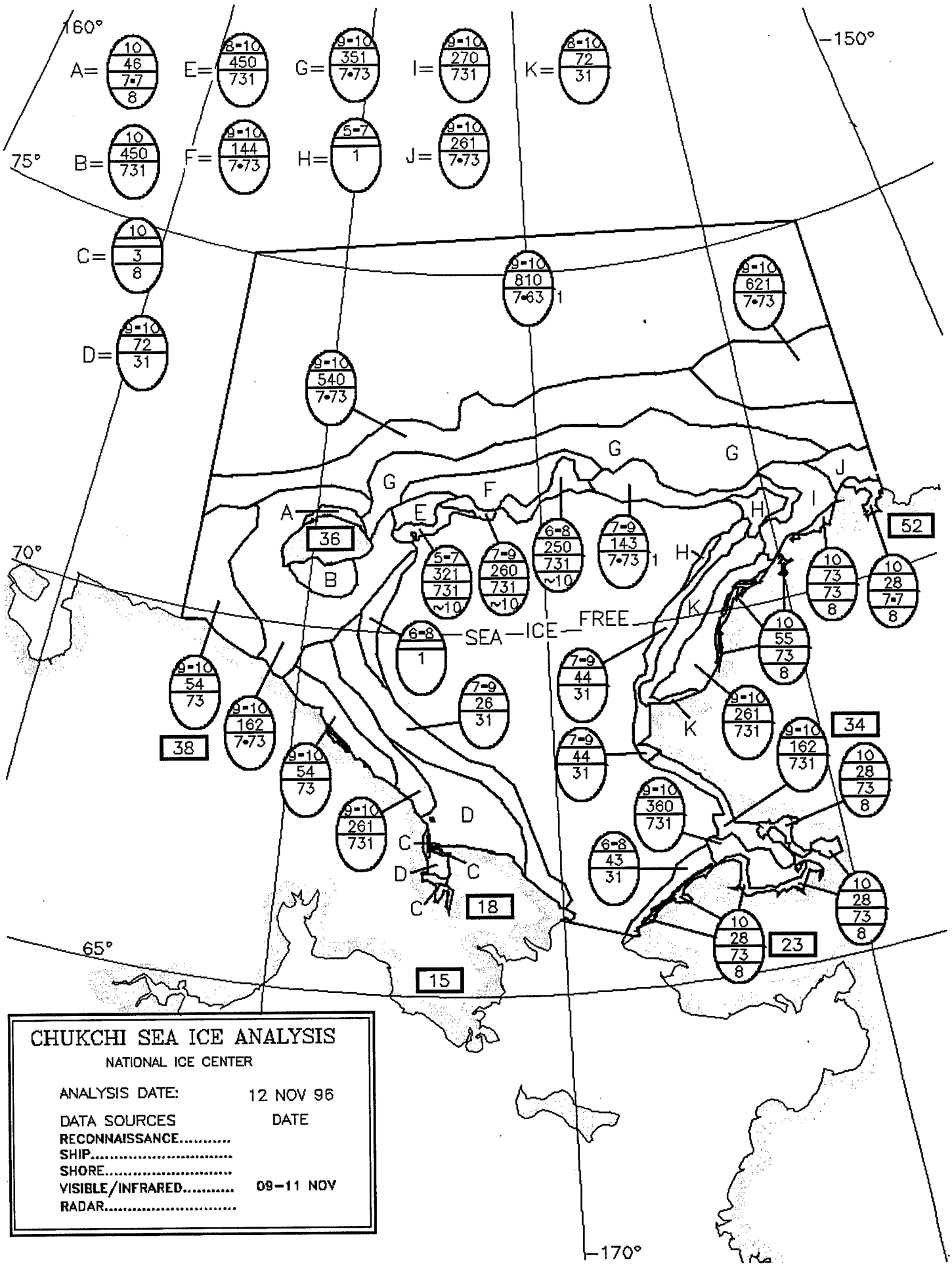
ANALYSIS DATE: 29 OCT 1996

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	28
RADAR.....	


160°
170°
-150°
75°
70°
65°
-170°
A= 9-10 / 3
B= 9-10 / 180 / 7•73
C= 8-10 / 324 / 7•73
D= 10 / 415 / 7•73 / 8
9-10 / 810 / 7•63 1
9-10 / 522 / 7•73
9-10 / 621 / 7•73
9-10 / 522 / 7•73
7-9 / 260 / 7•73 / ~10
7-9 / 260 / 7•73 / ~10
6-8 / 241 / 7•73 / ~10
42
10 / 244 / 7•73 / 8
10 / 19 / 73 / 8
10 / 3 / 8
5-7 / 24 / 31
SEA ICE FREE
27
6-8 / 34 / 31 / ~10
9-10 / 180 / 731
10 / 28 / 73 / 8
5-7 / 24 / 31
10 / 3 / 8
25
5-7 / 24 / 31
10 / 3 / 8
13
9-10 / 3
10 / 3 / 8
19
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....31 OCT-01 NOV 96
RADAR..... 31 OCT 96
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS


160°
150°
75°
70°
65°
170°
A= 10 / 19 / 73 / 8
G= 9-10 / 342 / 7•73
I= 9-10 / 252 / 7•73
K= 10 / 3 / 8
B= 9-10 / 3
H= 7-9 / 251 / 7•73 1
J= 7-9 / 134 / 7•73
C= 9-10 / 180 / 7•31
D= 9-10 / 270 / 731
E= 10 / 433 / 7•73 / 8
F= 9-10 / 333 / 7•73
9-10 / 810 / 7•63 1
9-10 / 621 / 7•73
9-10 / 522 / 7•73
8-10 / 261 / 7•73
7-9 / 314 / 731 / ~10
6-8 / 142 / 7•73 / ~10
10 / 271 / 7•73 / 8
10 / 46 / 73 / 8
40
6-8 / 25 / 31
7-9 / 224 / 7•73
10 / 19 / 73 / 8
9-10 / 270 / 731
7-9 / 44 / 31
8-10 / 45 / 31
10 / 28 / 73 / 8
32
7-9 / 26 / 31
28
10 / 3 / 8
6-8 / 25 / 31
3-5 / 1
9-10 / 270 / 731
15
11
7-9 / 44 / 31
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 5 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 3-4 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS

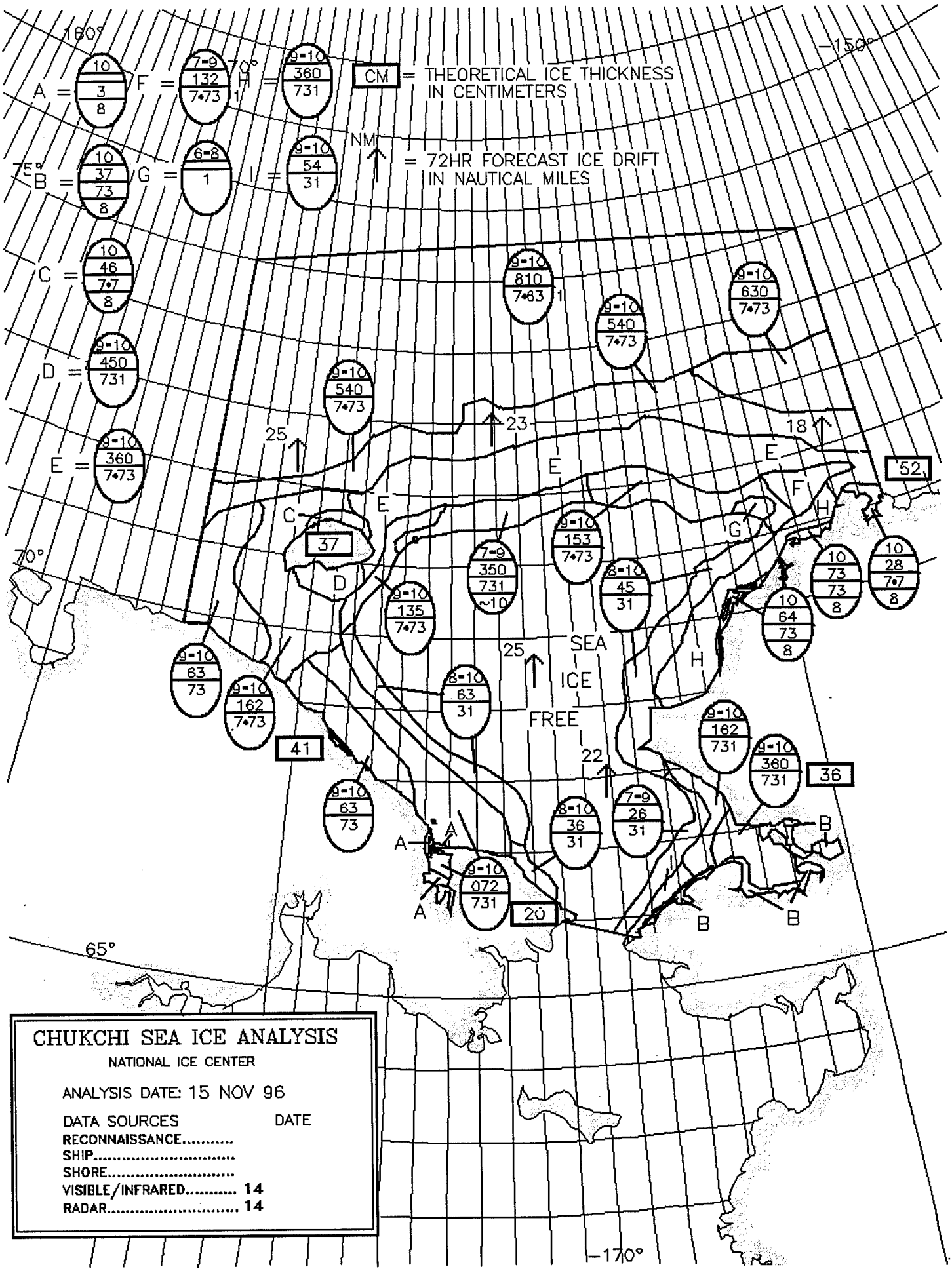

CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 8 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 5 - 8
RADAR..... 7
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM = 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
SEA ICE FREE
160°
150°
75°
70°
65°
170°
A = 10 / 3 / 8
B = 10 / 451 / 7•73 / 8
C = 10 / 28 / 73 / 8
D = 7-9 / 053 / 731
E = 7-9 / 53 / 31
F = 9-10 / 342 / 7•73
G = 9-10 / 135 / 7•73
H = 9-10 / 261 / 731
34
35
16
48
30

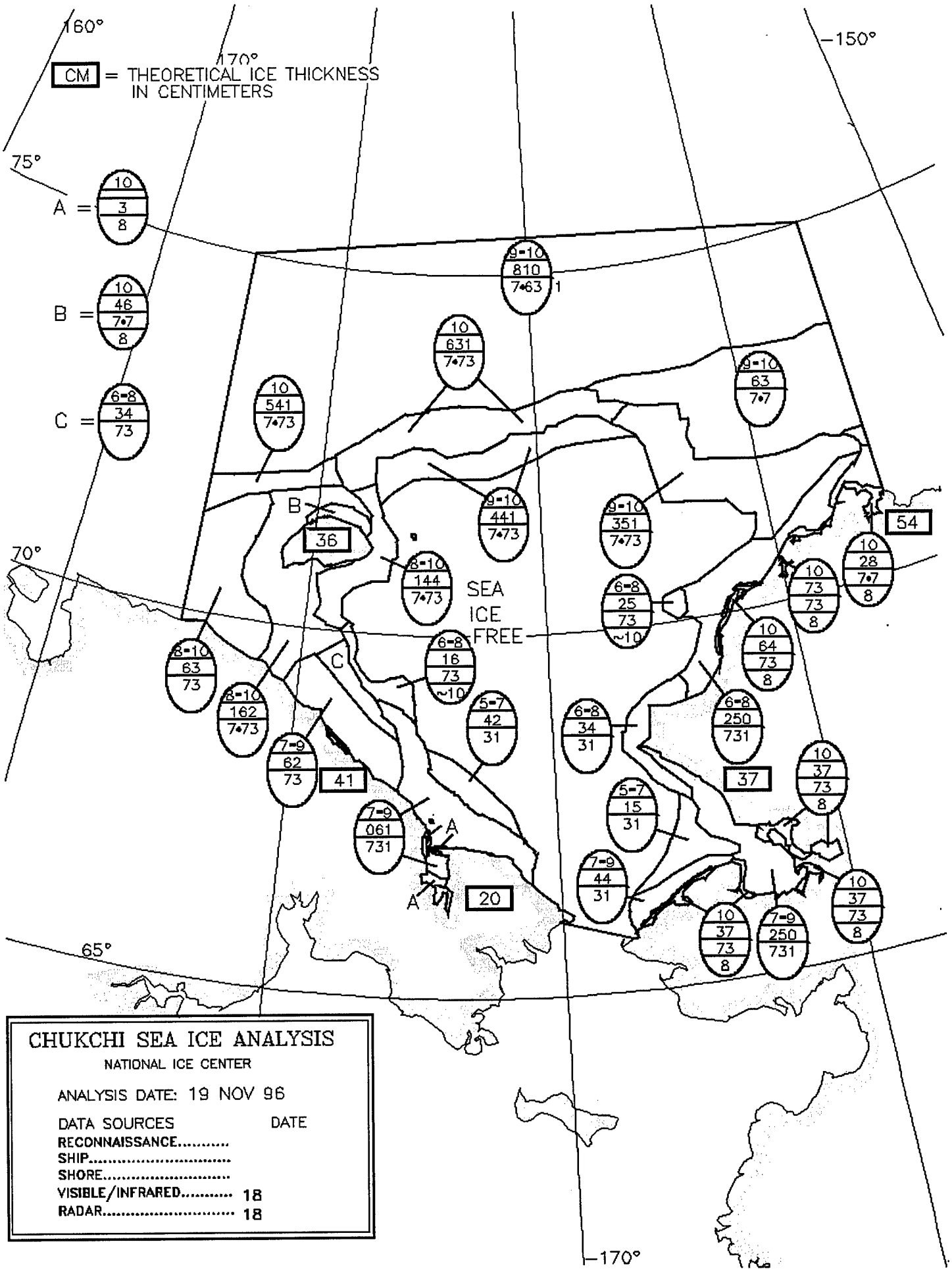


CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE:	12 NOV 96
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	09-11 NOV
RADAR.....	


CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
NM = 72HR FORECAST ICE DRIFT IN NAUTICAL MILES
SEA ICE FREE
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 14
RADAR..... 14

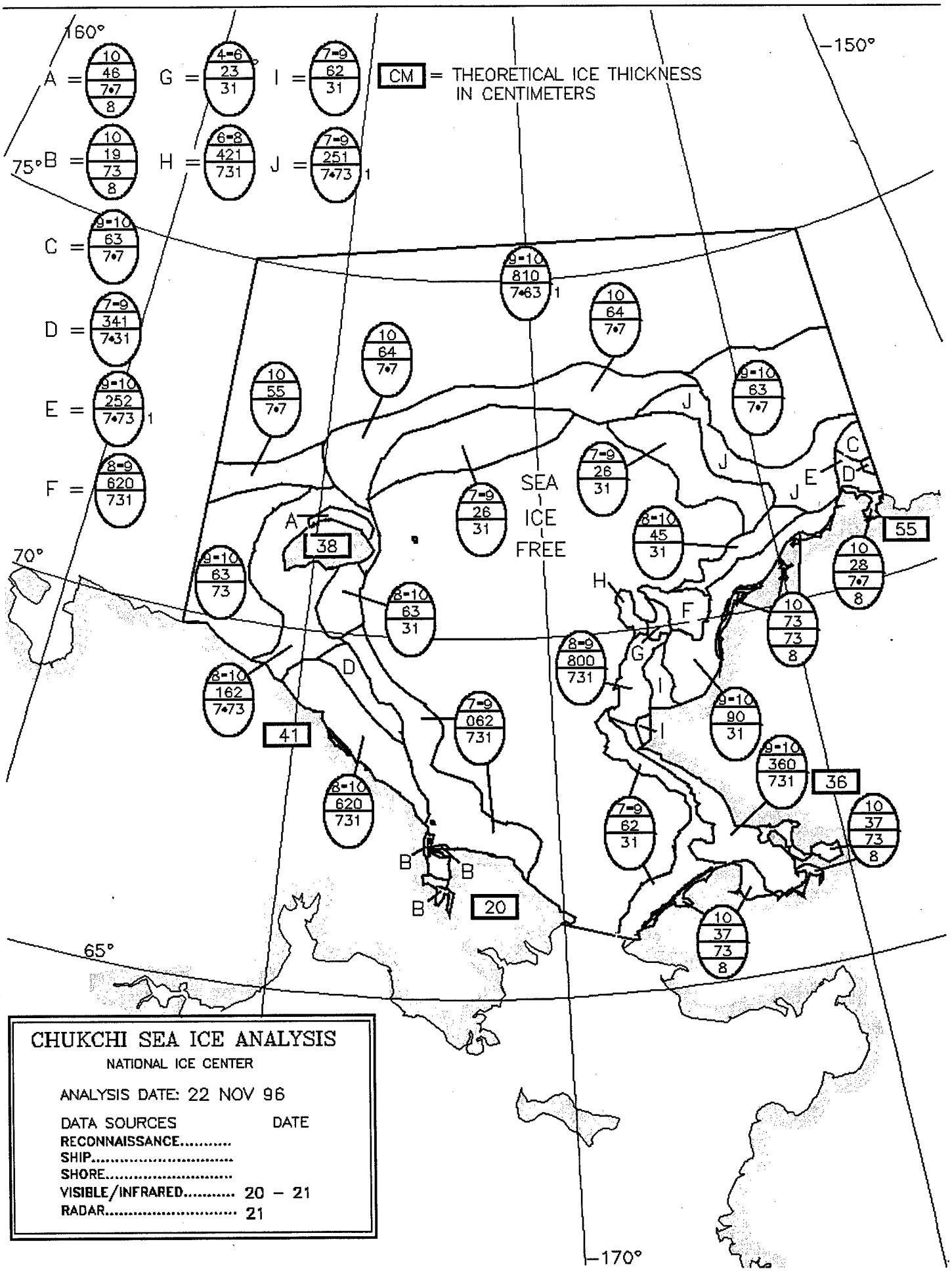


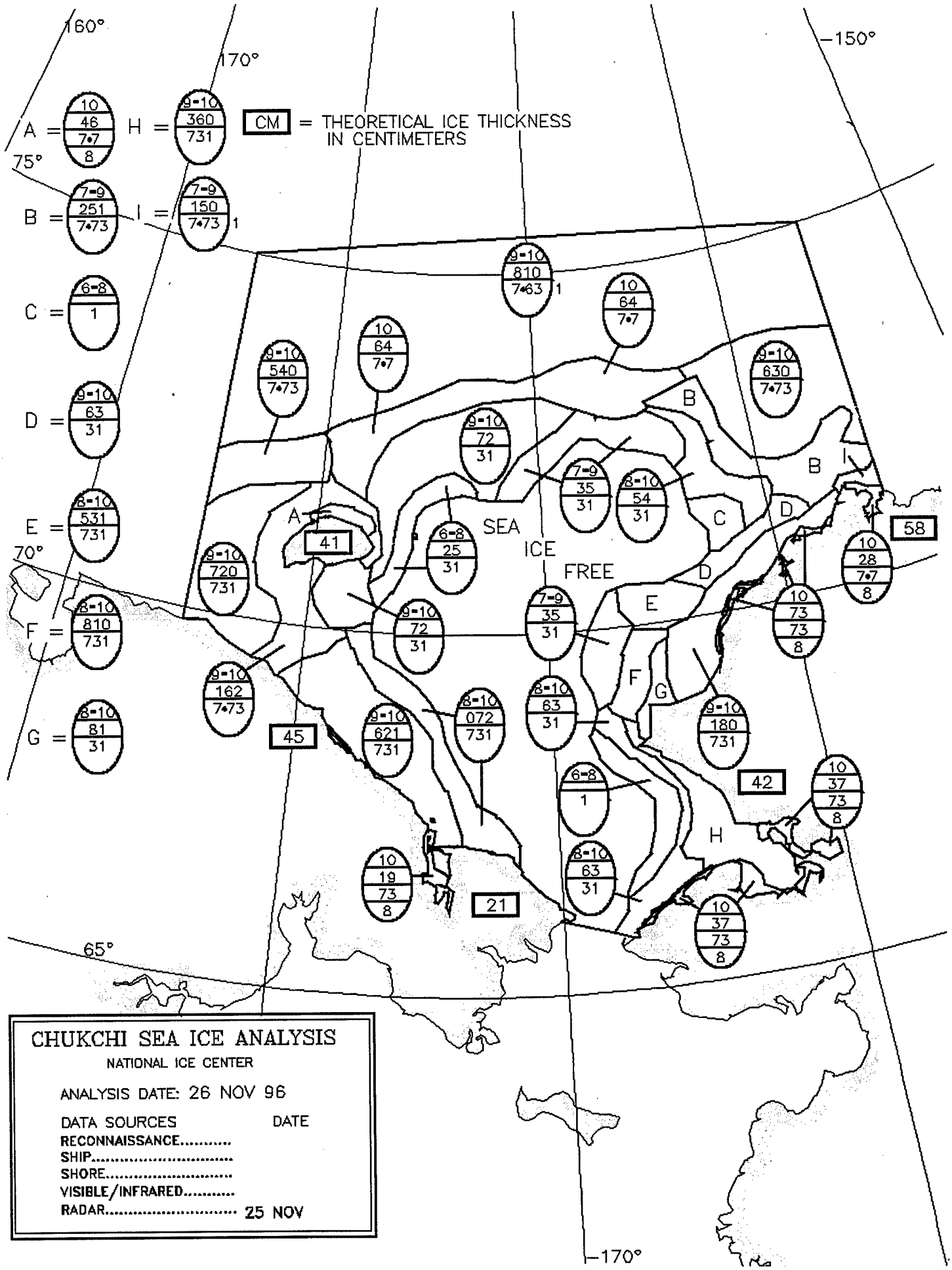
CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 19 NOV 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	18
RADAR.....	18


160°
150°
170°
75°
70°
65°
A = 10 / 46 / 7•7 / 8
B = 10 / 19 / 73 / 8
C = 9-10 / 63 / 7•7
D = 7-9 / 341 / 7•31
E = 9-10 / 252 / 7•73 1
F = 8-9 / 620 / 731
G = 4-6 / 23 / 31
H = 6-8 / 421 / 731
I = 7-9 / 62 / 31
J = 7-9 / 251 / 7•73 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
SEA ICE FREE
38
41
20
36
55
9-10 / 810 / 7•63 1
10 / 64 / 7•7
10 / 55 / 7•7
9-10 / 63 / 7•7
7-9 / 26 / 31
8-10 / 45 / 31
10 / 28 / 7•7 / 8
9-10 / 63 / 73
8-10 / 63 / 31
10 / 73 / 73 / 8
8-9 / 800 / 731
8-10 / 162 / 7•73
7-9 / 062 / 731
9-10 / 90 / 31
9-10 / 360 / 731
8-10 / 620 / 731
7-9 / 62 / 31
10 / 37 / 73 / 8
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 20 – 21
RADAR..... 21

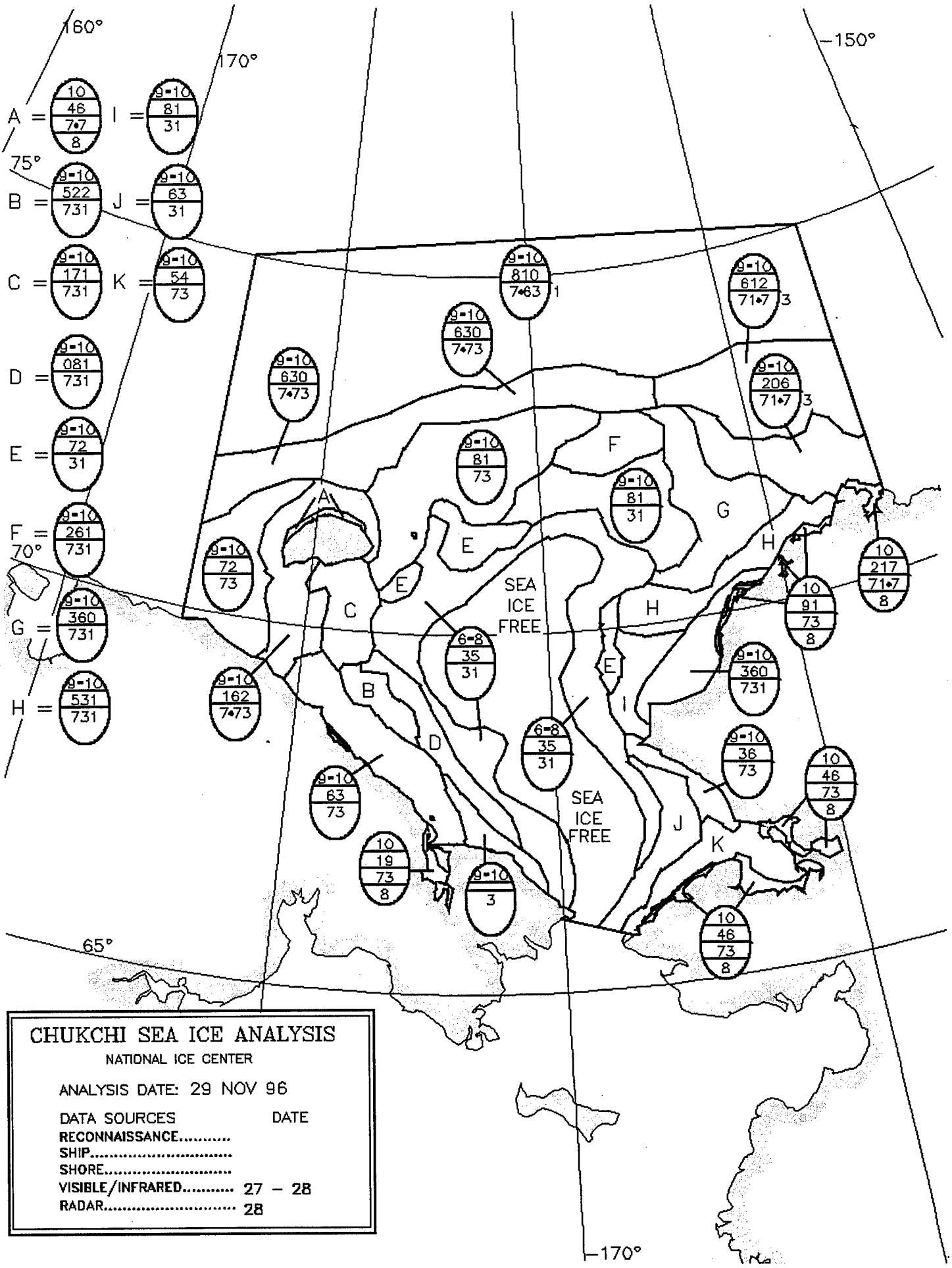


CHUKCHI SEA ICE ANALYSIS

NATIONAL ICE CENTER

ANALYSIS DATE: 26 NOV 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	
RADAR.....	25 NOV

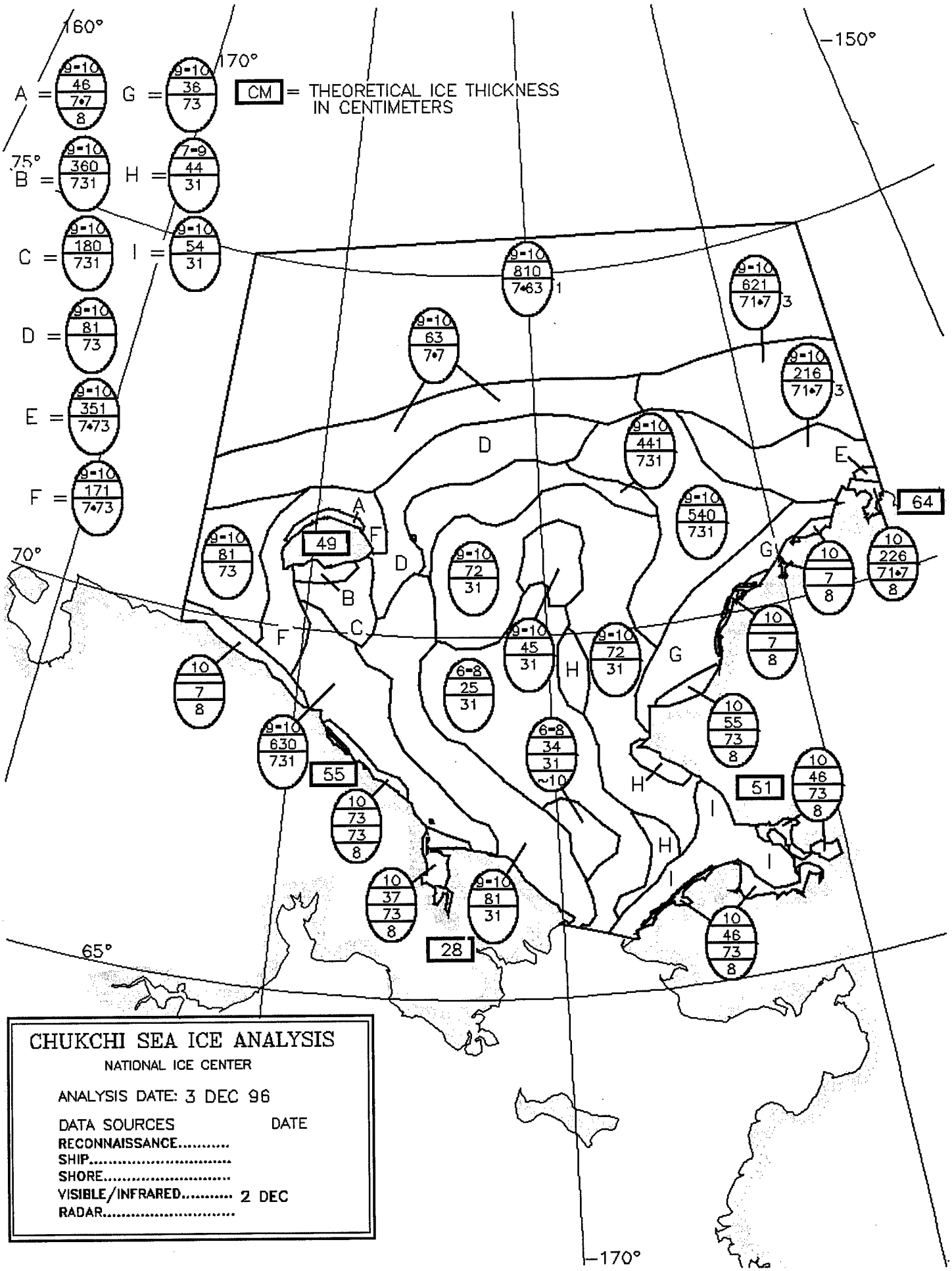


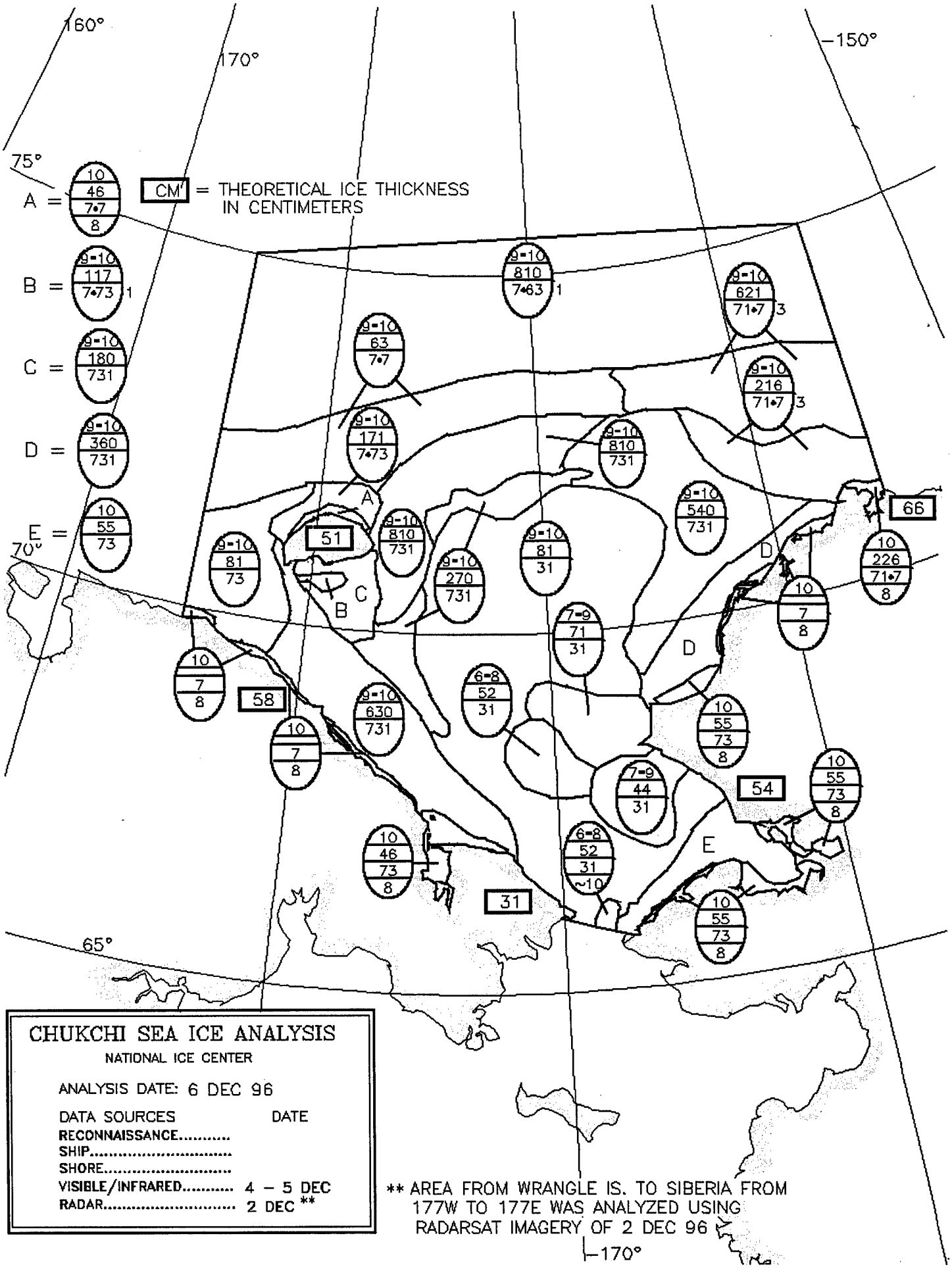
CHUKCHI SEA ICE ANALYSIS

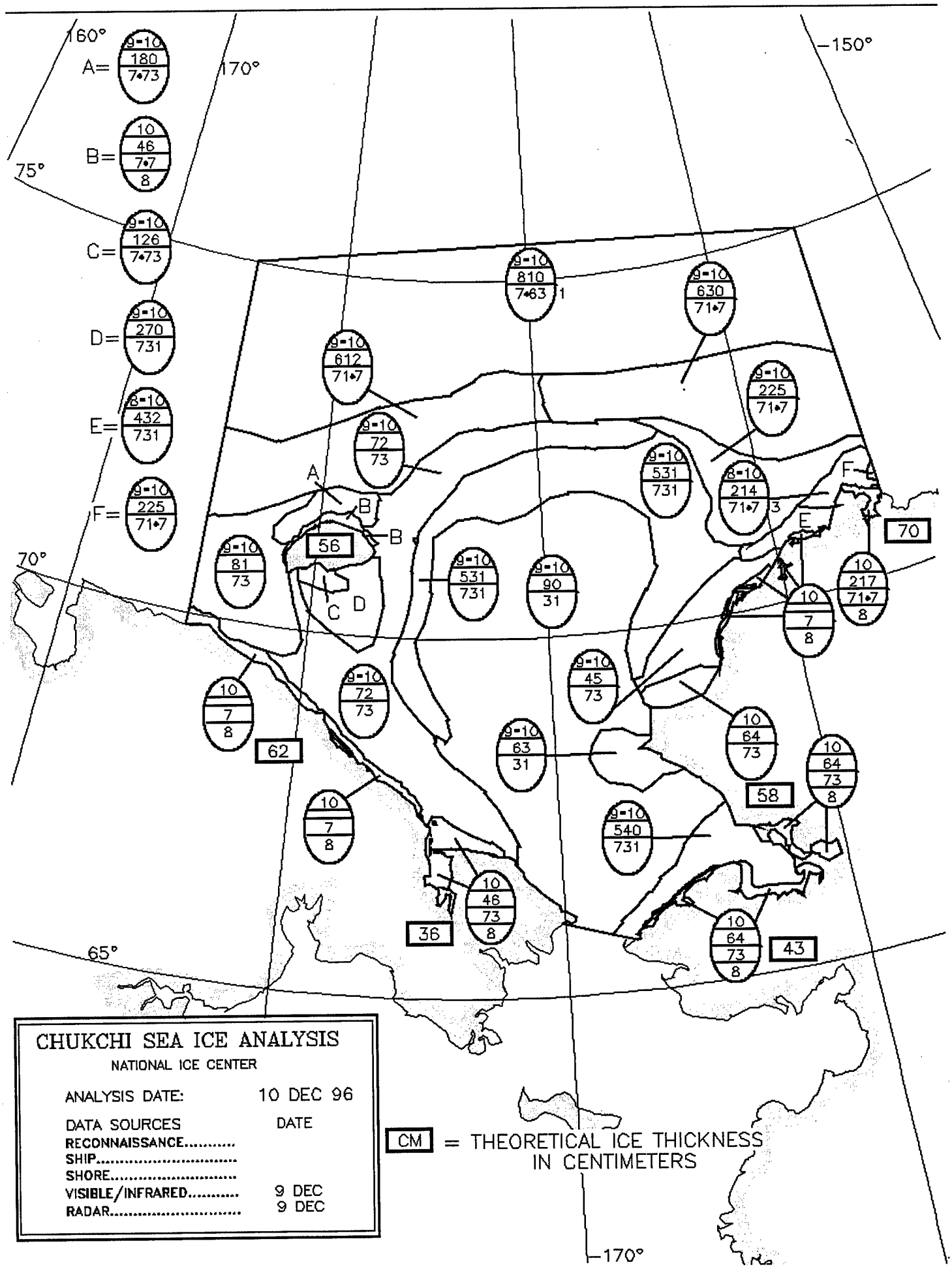
NATIONAL ICE CENTER

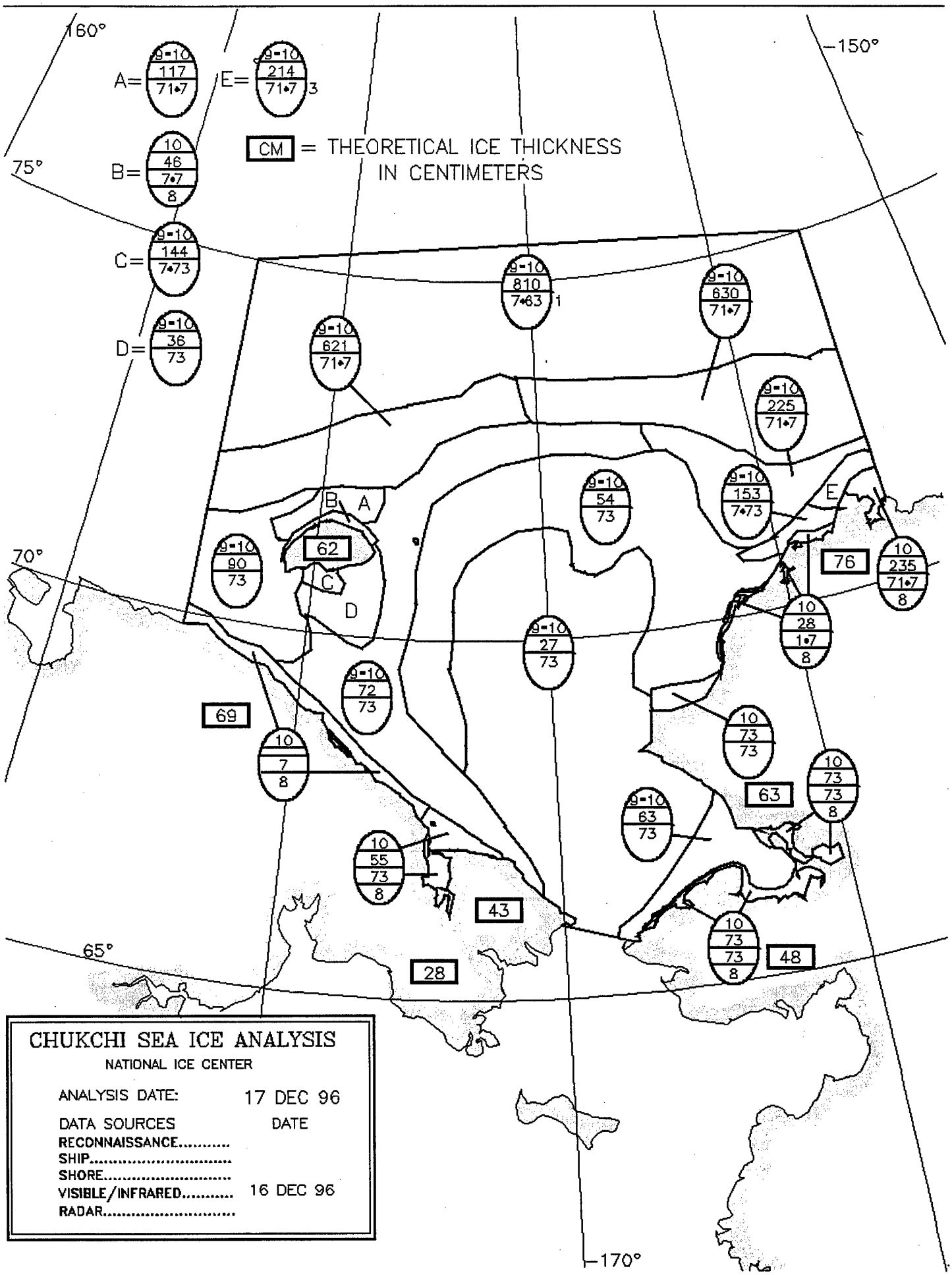
ANALYSIS DATE: 29 NOV 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	27 – 28
RADAR.....	28


160°
170°
-150°
75°
70°
65°
-170°
A = 9-10 / 46 / 7•7 / 8
G = 9-10 / 36 / 73
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
B = 9-10 / 360 / 731
H = 7-9 / 44 / 31
C = 9-10 / 180 / 731
I = 9-10 / 54 / 31
D = 9-10 / 81 / 73
E = 9-10 / 351 / 7•73
F = 9-10 / 171 / 7•73
9-10 / 810 / 7•63 1
9-10 / 621 / 71•7 3
9-10 / 63 / 7•7
9-10 / 216 / 71•7 3
9-10 / 441 / 731
9-10 / 540 / 731
64
9-10 / 81 / 73
49
9-10 / 72 / 31
10 / 7 / 8
10 / 226 / 71•7 / 8
10 / 7 / 8
9-10 / 45 / 31
9-10 / 72 / 31
10 / 7 / 8
6-8 / 25 / 31
10 / 55 / 73 / 8
9-10 / 630 / 731
55
6-8 / 34 / 31 ~10
51
10 / 46 / 73 / 8
10 / 73 / 73 / 8
10 / 37 / 73 / 8
9-10 / 81 / 31
28
10 / 46 / 73 / 8
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 2 DEC
RADAR.....


160°
170°
-150°
75°
70°
65°
-170°
CM' = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 / 46 / 7•7 / 8
B = 9-10 / 117 / 7•73 1
C = 9-10 / 180 / 731
D = 9-10 / 360 / 731
E = 10 / 55 / 73
9-10 / 810 / 7•63 1
9-10 / 621 / 71•7 3
9-10 / 63 / 7•7
9-10 / 216 / 71•7 3
9-10 / 171 / 7•73
9-10 / 810 / 731
9-10 / 540 / 731
9-10 / 810 / 731
9-10 / 81 / 73
9-10 / 270 / 731
9-10 / 81 / 31
10 / 226 / 71•7 / 8
10 / 7 / 8
7-9 / 71 / 31
6-8 / 52 / 31
9-10 / 630 / 731
10 / 55 / 73 / 8
7-9 / 44 / 31
6-8 / 52 / 31 ~10
10 / 46 / 73 / 8
51
66
58
54
31
A
B
C
D
E
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 6 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 4 – 5 DEC
RADAR..... 2 DEC **
** AREA FROM WRANGLE IS. TO SIBERIA FROM 177W TO 177E WAS ANALYZED USING RADARSAT IMAGERY OF 2 DEC 96


160°
170°
-150°
75°
70°
65°
-170°
A= 9-10 / 180 / 7•73
B= 10 / 46 / 7•7 / 8
C= 9-10 / 126 / 7•73
D= 9-10 / 270 / 731
E= 8-10 / 432 / 731
F= 9-10 / 225 / 71•7
9-10 / 810 / 7•63 1
9-10 / 630 / 71•7
9-10 / 612 / 71•7
9-10 / 225 / 71•7
9-10 / 72 / 73
9-10 / 531 / 731
8-10 / 214 / 71•7 3
9-10 / 81 / 73
56
9-10 / 531 / 731
9-10 / 90 / 31
70
10 / 217 / 71•7 / 8
10 / 7 / 8
9-10 / 45 / 73
10 / 7 / 8
9-10 / 72 / 73
62
9-10 / 63 / 31
10 / 64 / 73
58
10 / 64 / 73 / 8
10 / 7 / 8
9-10 / 540 / 731
10 / 46 / 73 / 8
36
10 / 64 / 73 / 8
43
A
B
C
D
E
F
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9 DEC
RADAR..... 9 DEC
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS

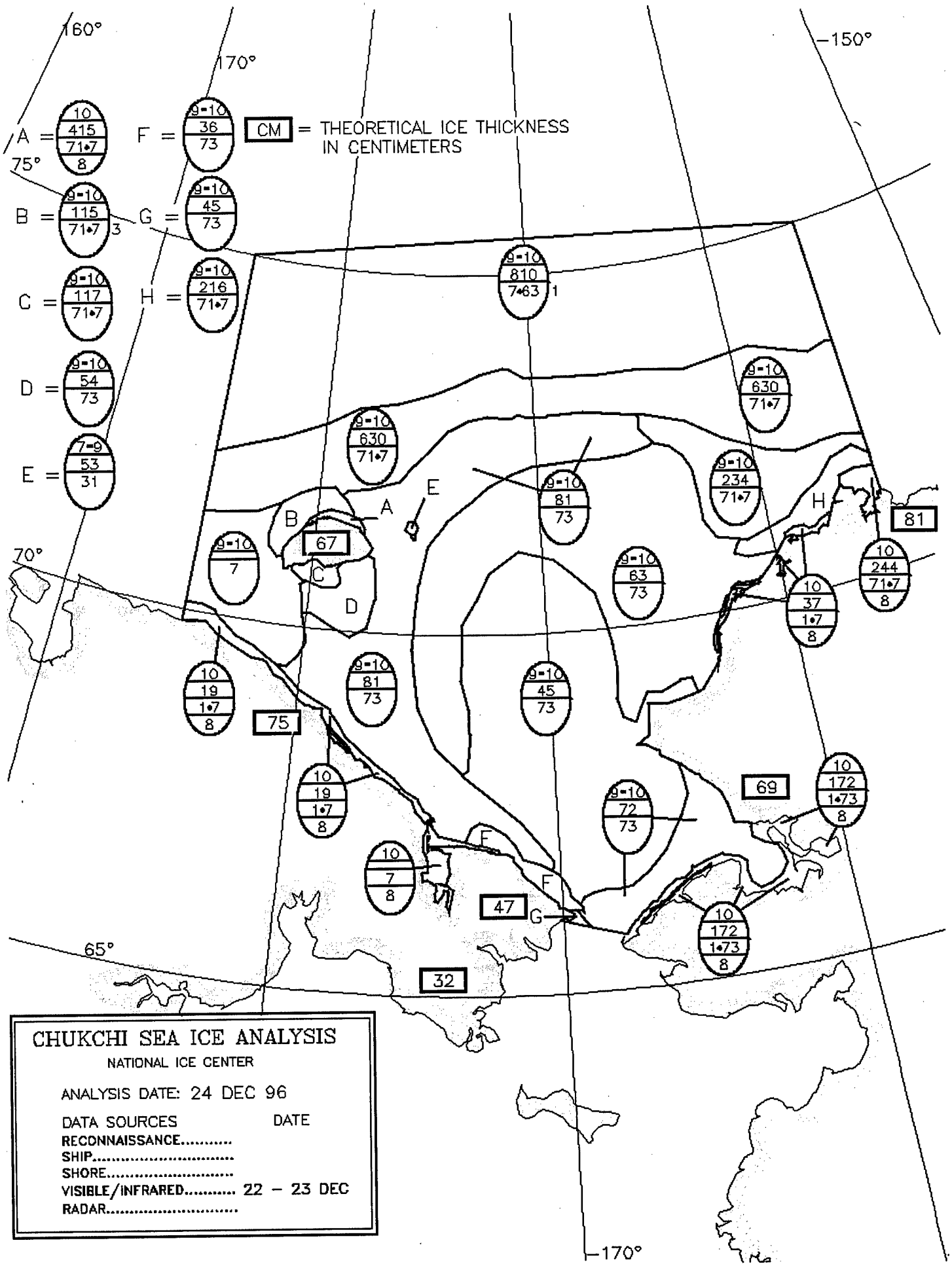


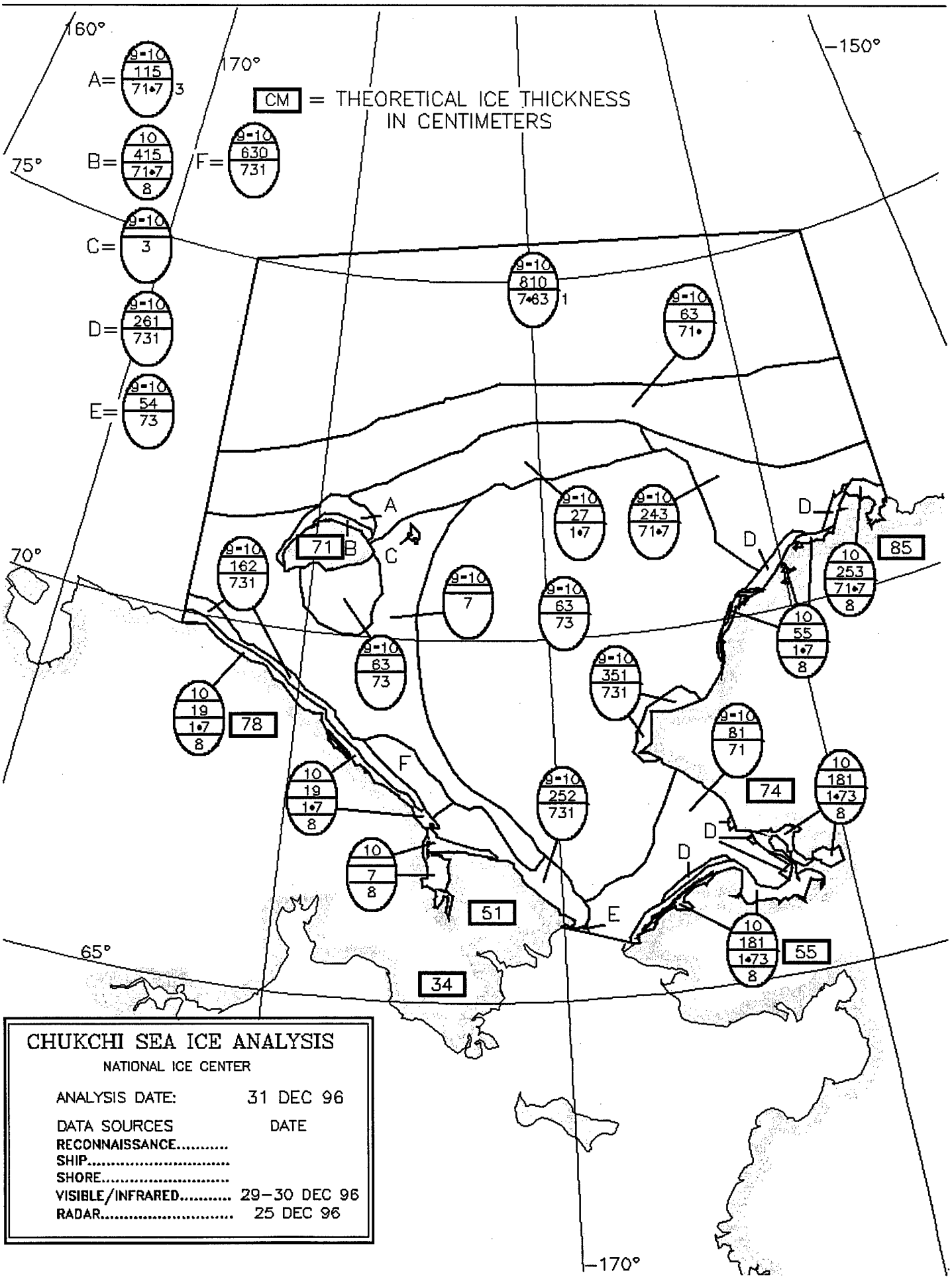
CHUKCHI SEA ICE ANALYSIS

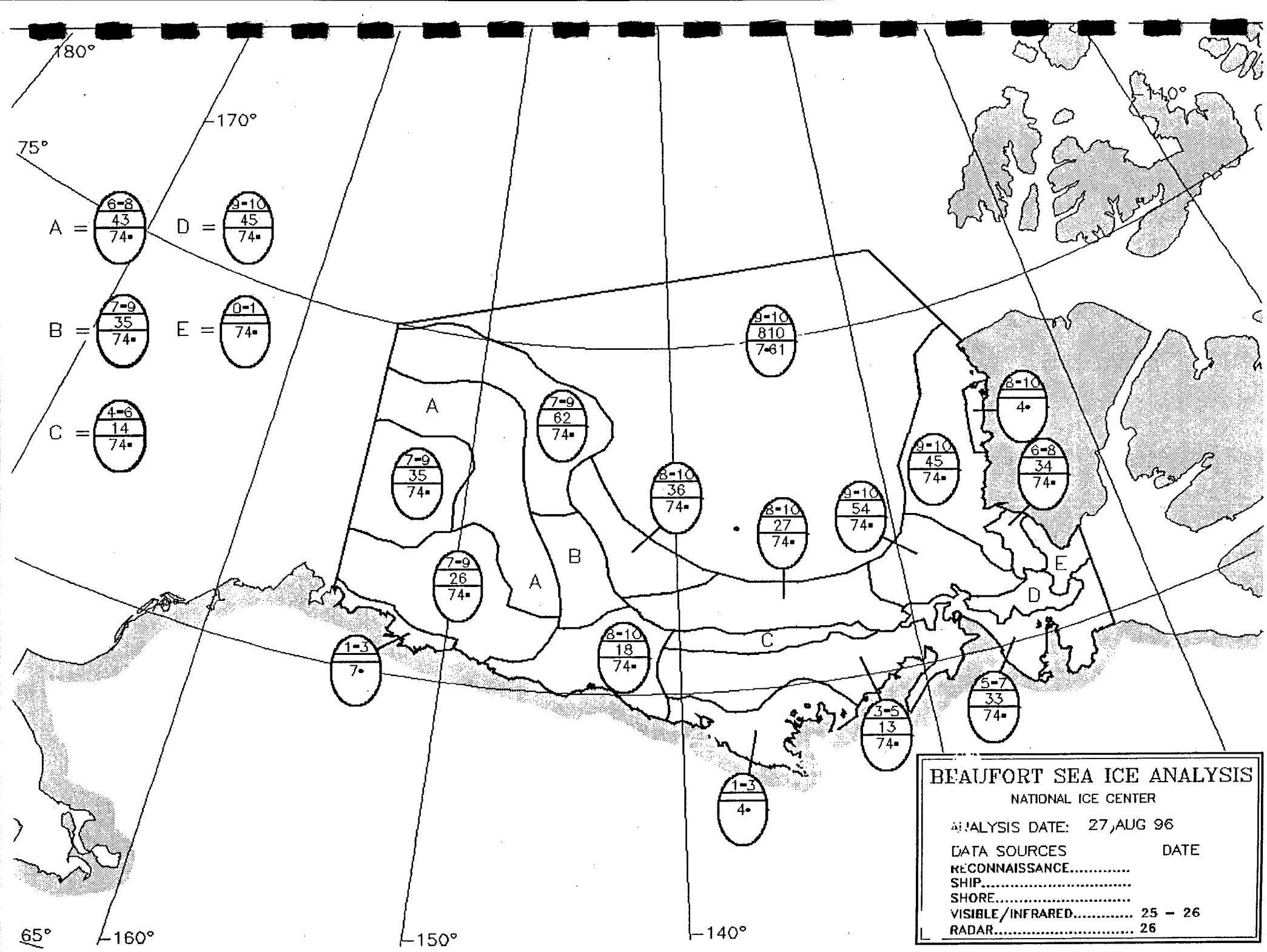
NATIONAL ICE CENTER

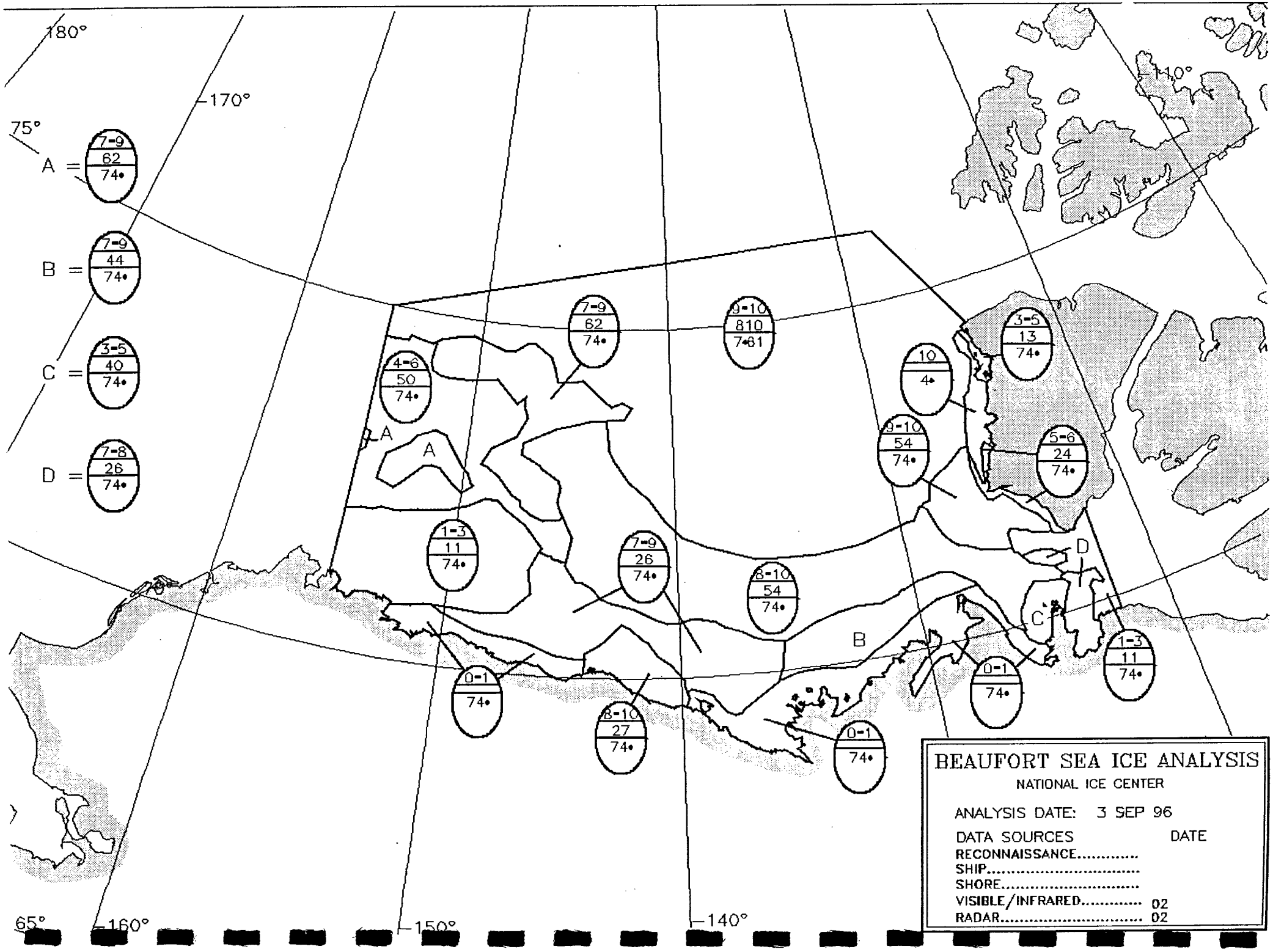
ANALYSIS DATE: 17 DEC 96

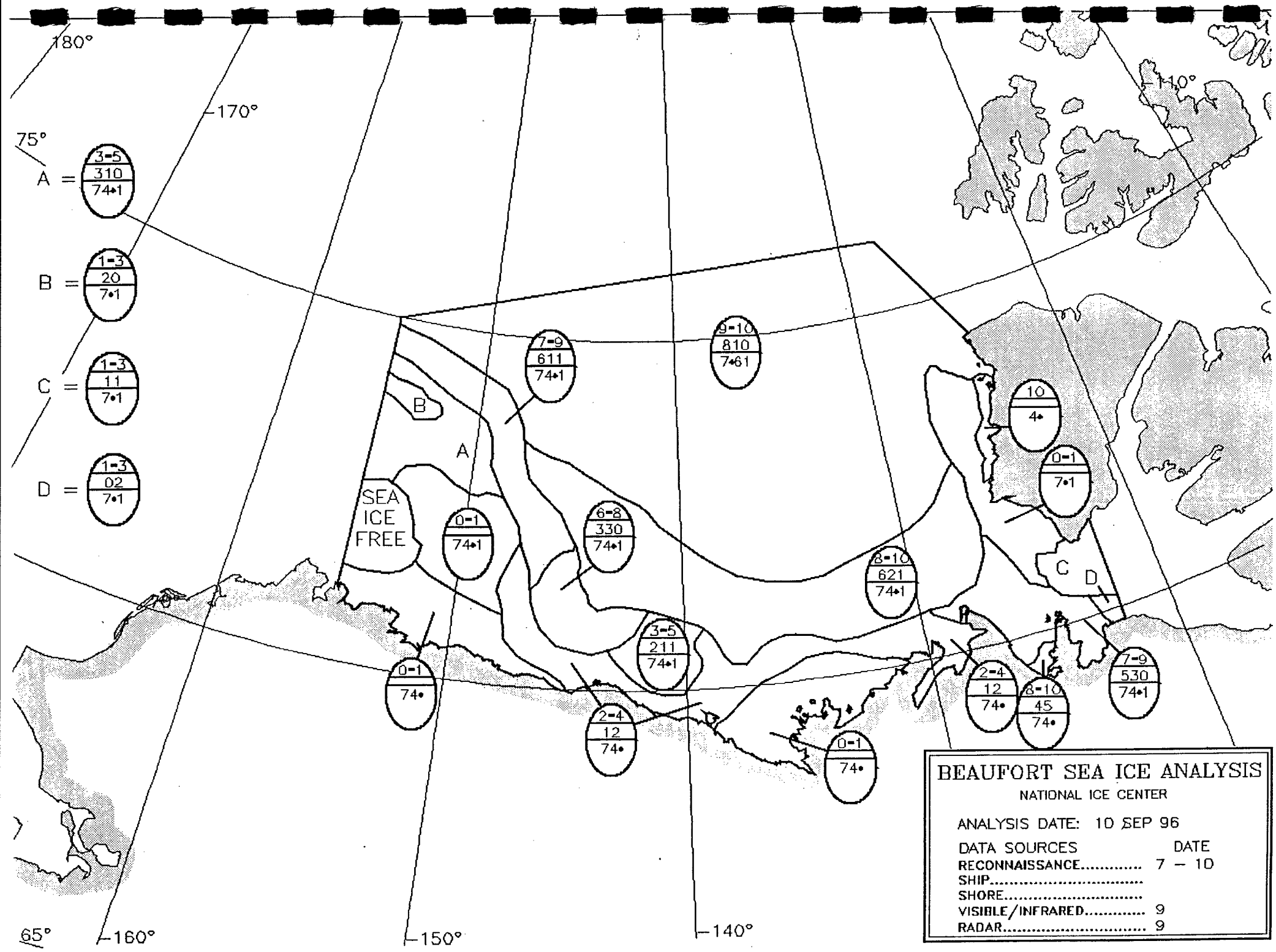
DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	16 DEC 96
RADAR.....	

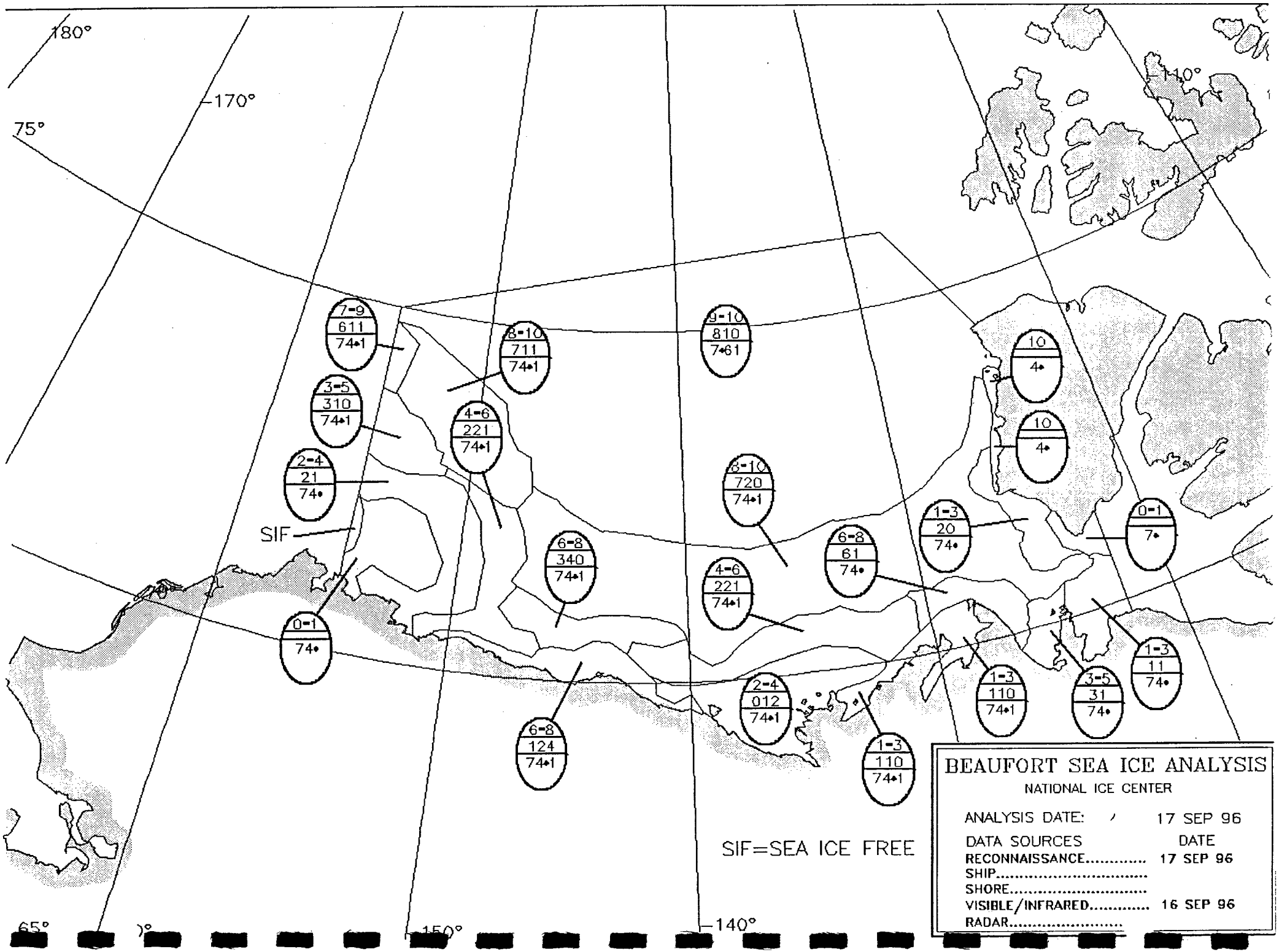

160°
170°
-150°
75°
70°
65°
-170°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 / 415 / 71•7 / 8
B = 9-10 / 115 / 71•7 / 3
C = 9-10 / 117 / 71•7
D = 9-10 / 54 / 73
E = 7-9 / 53 / 31
F = 9-10 / 36 / 73
G = 9-10 / 45 / 73
H = 9-10 / 216 / 71•7
9-10 / 810 / 7•63 / 1
9-10 / 630 / 71•7
9-10 / 630 / 71•7
9-10 / 81 / 73
9-10 / 234 / 71•7
9-10 / 7
9-10 / 63 / 73
10 / 244 / 71•7 / 8
10 / 37 / 1•7 / 8
10 / 19 / 1•7 / 8
9-10 / 81 / 73
9-10 / 45 / 73
10 / 19 / 1•7 / 8
10 / 172 / 1•73 / 8
9-10 / 72 / 73
10 / 7 / 8
10 / 172 / 1•73 / 8
67
81
75
69
47
32
A
B
C
D
E
F
G
H
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 – 23 DEC
RADAR.....

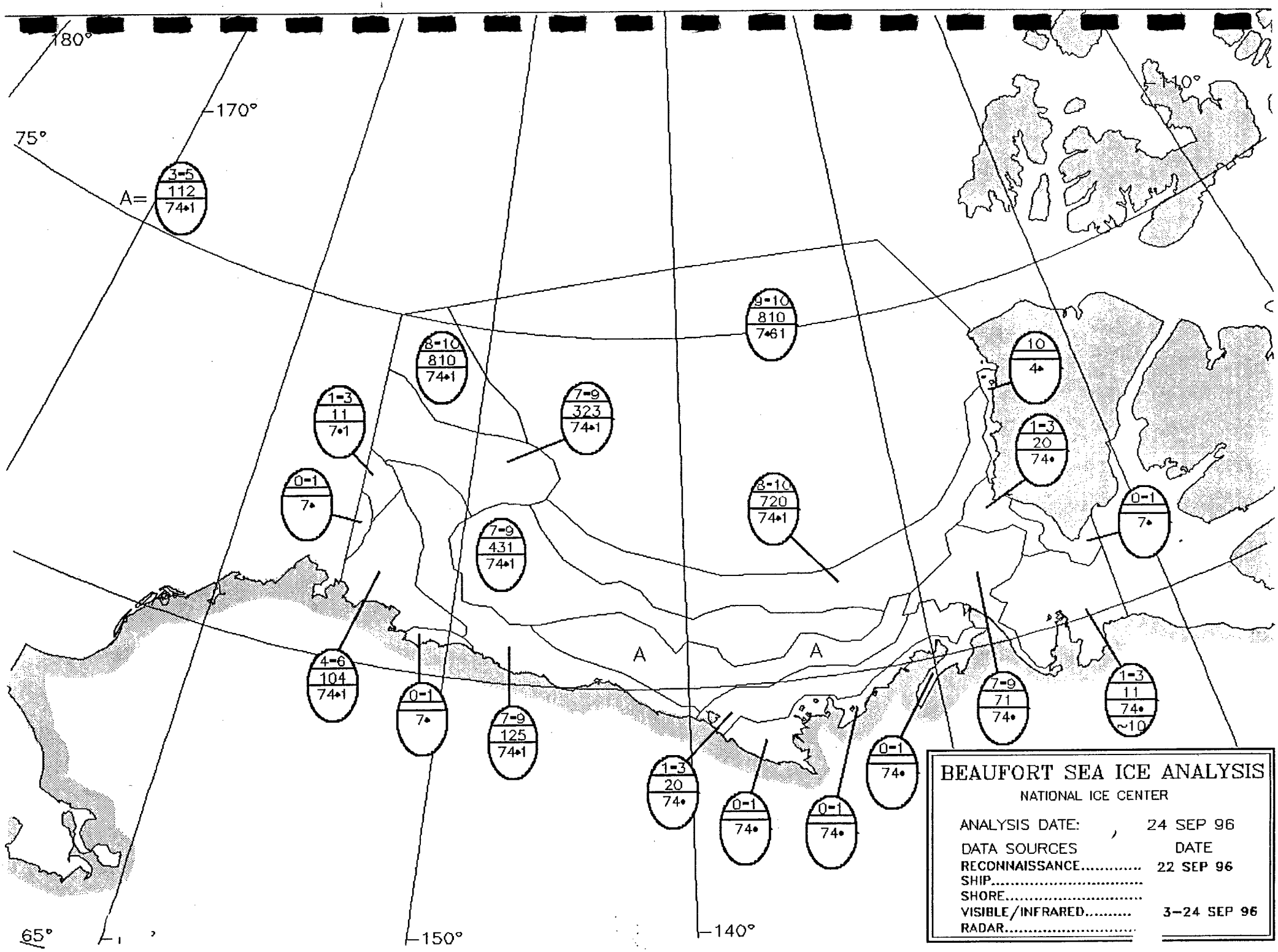

160°
170°
-150°
75°
70°
65°
-170°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 / 115 / 71•7 3
B= 10 / 415 / 71•7 / 8
C= 9-10 / 3
D= 9-10 / 261 / 731
E= 9-10 / 54 / 73
F= 9-10 / 630 / 731
9-10 / 810 / 7•63 1
9-10 / 63 / 71•
9-10 / 27 / 1•7
9-10 / 243 / 71•7
9-10 / 162 / 731
71
A
B
C
9-10 / 7
9-10 / 63 / 73
9-10 / 63 / 73
9-10 / 351 / 731
9-10 / 81 / 71
9-10 / 252 / 731
10 / 253 / 71•7 / 8
85
10 / 55 / 1•7 / 8
10 / 19 / 1•7 / 8
78
10 / 19 / 1•7 / 8
F
10 / 7 / 8
51
E
74
10 / 181 / 1•73 / 8
D
10 / 181 / 1•73 / 8
55
34
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 29–30 DEC 96
RADAR..... 25 DEC 96

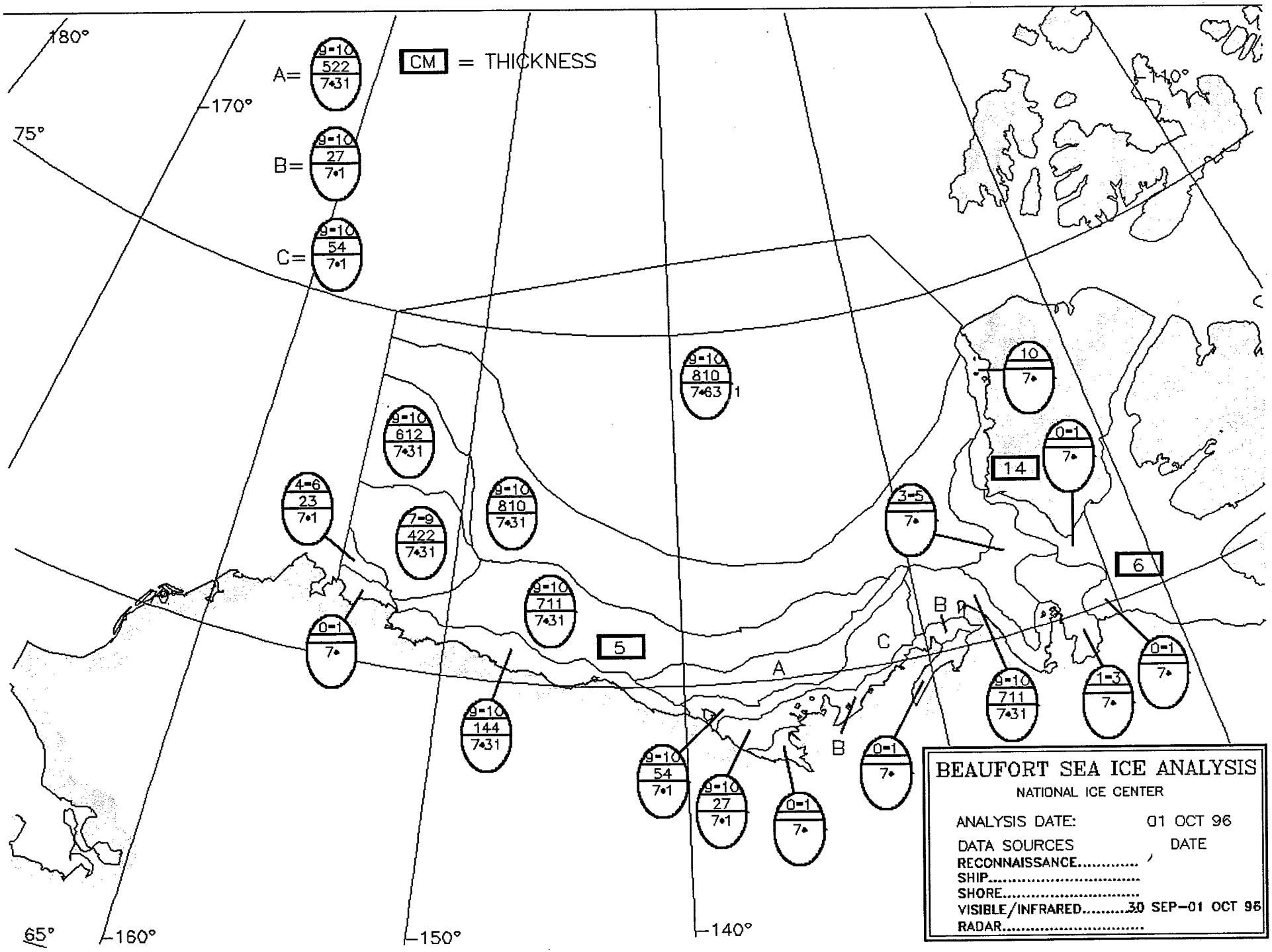

180°
170°
75°
65°
160°
150°
140°
110°
A = 6-8 / 43 / 74•
B = 7-9 / 35 / 74•
C = 4-6 / 14 / 74•
D = 9-10 / 45 / 74•
E = 0-1 / 74•
9-10 / 810 / 7-61
7-9 / 62 / 74•
7-9 / 35 / 74•
7-9 / 26 / 74•
8-10 / 36 / 74•
8-10 / 27 / 74•
9-10 / 54 / 74•
9-10 / 45 / 74•
8-10 / 4•
6-8 / 34 / 74•
8-10 / 18 / 74•
1-3 / 7•
1-3 / 4•
3-5 / 13 / 74•
5-7 / 33 / 74•
A
B
C
D
E
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 AUG 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 – 26
RADAR..... 26

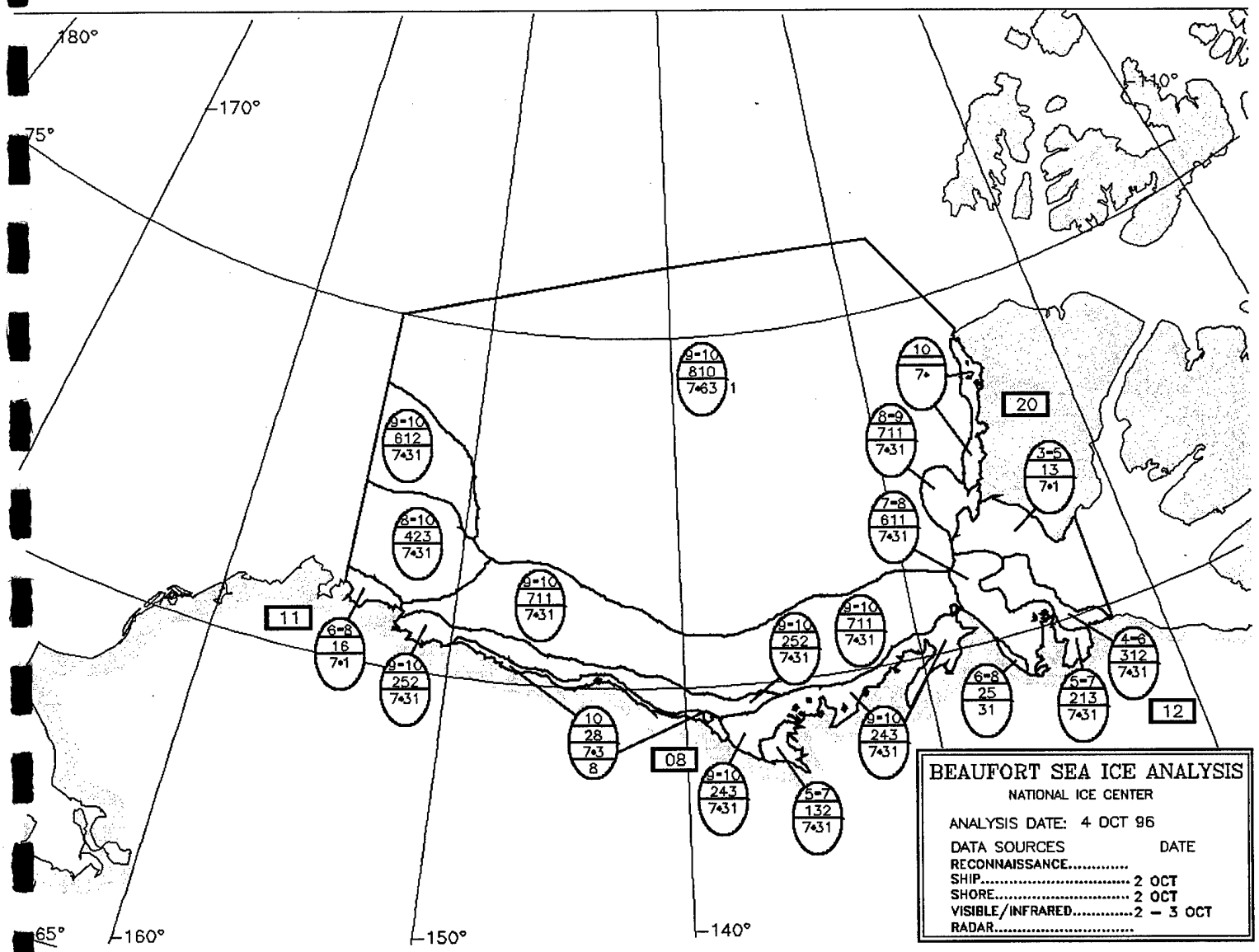

180°
170°
75°
A = 7-9 / 62 / 74•
B = 7-9 / 44 / 74•
C = 3-5 / 40 / 74•
D = 7-8 / 26 / 74•
7-9 / 62 / 74•
9-10 / 810 / 7•61
4-6 / 50 / 74•
10 / 4•
3-5 / 13 / 74•
9-10 / 54 / 74•
5-6 / 24 / 74•
A
A
1-3 / 11 / 74•
7-9 / 26 / 74•
8-10 / 54 / 74•
D
C
B
0-1 / 74•
8-10 / 27 / 74•
0-1 / 74•
0-1 / 74•
1-3 / 11 / 74•
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 02
RADAR..... 02

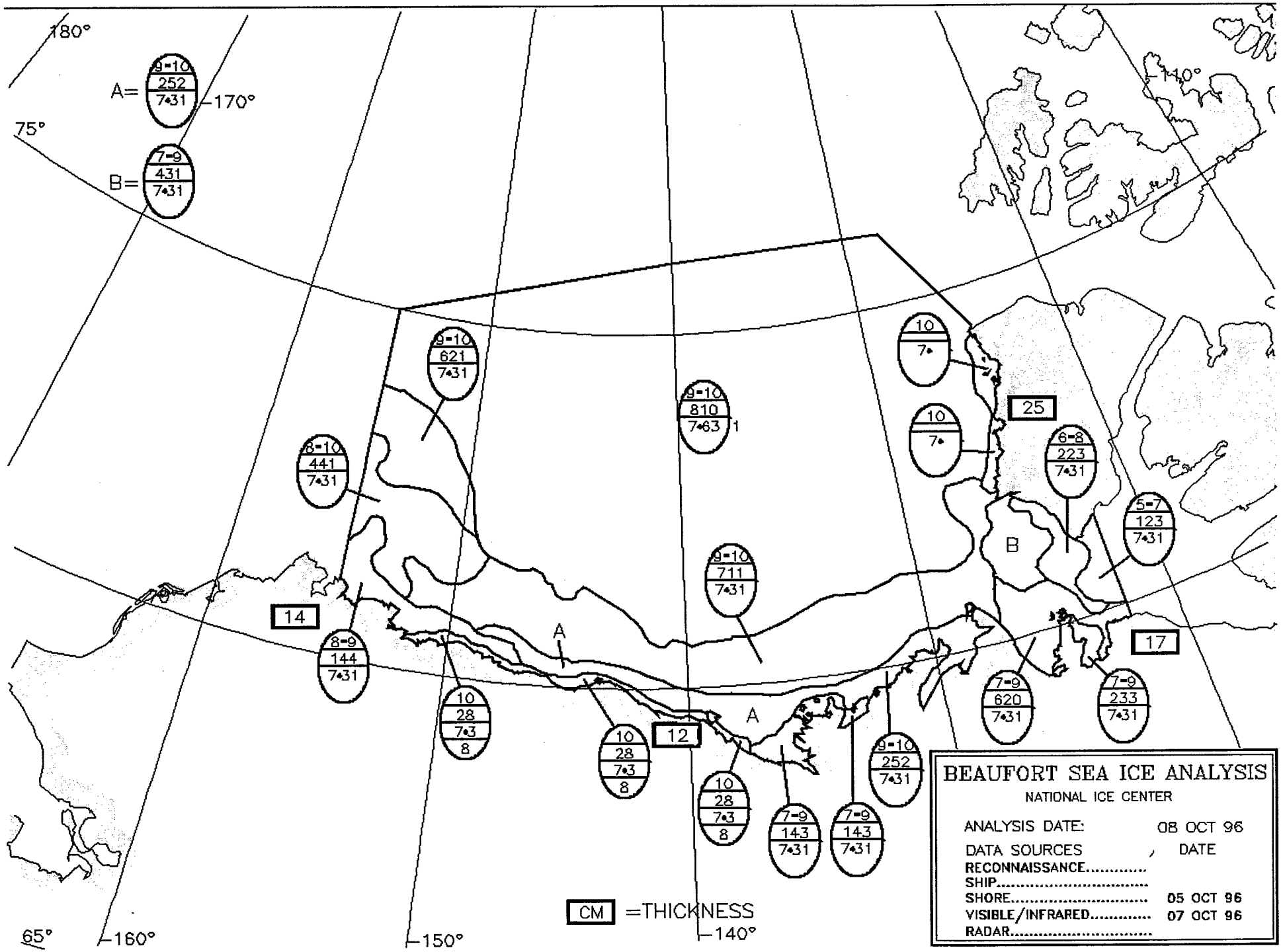

180°
170°
75°
A = 3-5 / 310 / 74•1
B = 1-3 / 20 / 7•1
C = 1-3 / 11 / 7•1
D = 1-3 / 02 / 7•1
7-9 / 611 / 74•1
9-10 / 810 / 7•61
10 / 4•
0-1 / 7•1
B
A
SEA ICE FREE
0-1 / 74•1
6-8 / 330 / 74•1
8-10 / 621 / 74•1
C
D
3-5 / 211 / 74•1
0-1 / 74•
2-4 / 12 / 74•
0-1 / 74•
2-4 / 12 / 74•
8-10 / 45 / 74•
7-9 / 530 / 74•1
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 SEP 96
DATA SOURCES DATE
RECONNAISSANCE..... 7 – 10
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9
RADAR..... 9

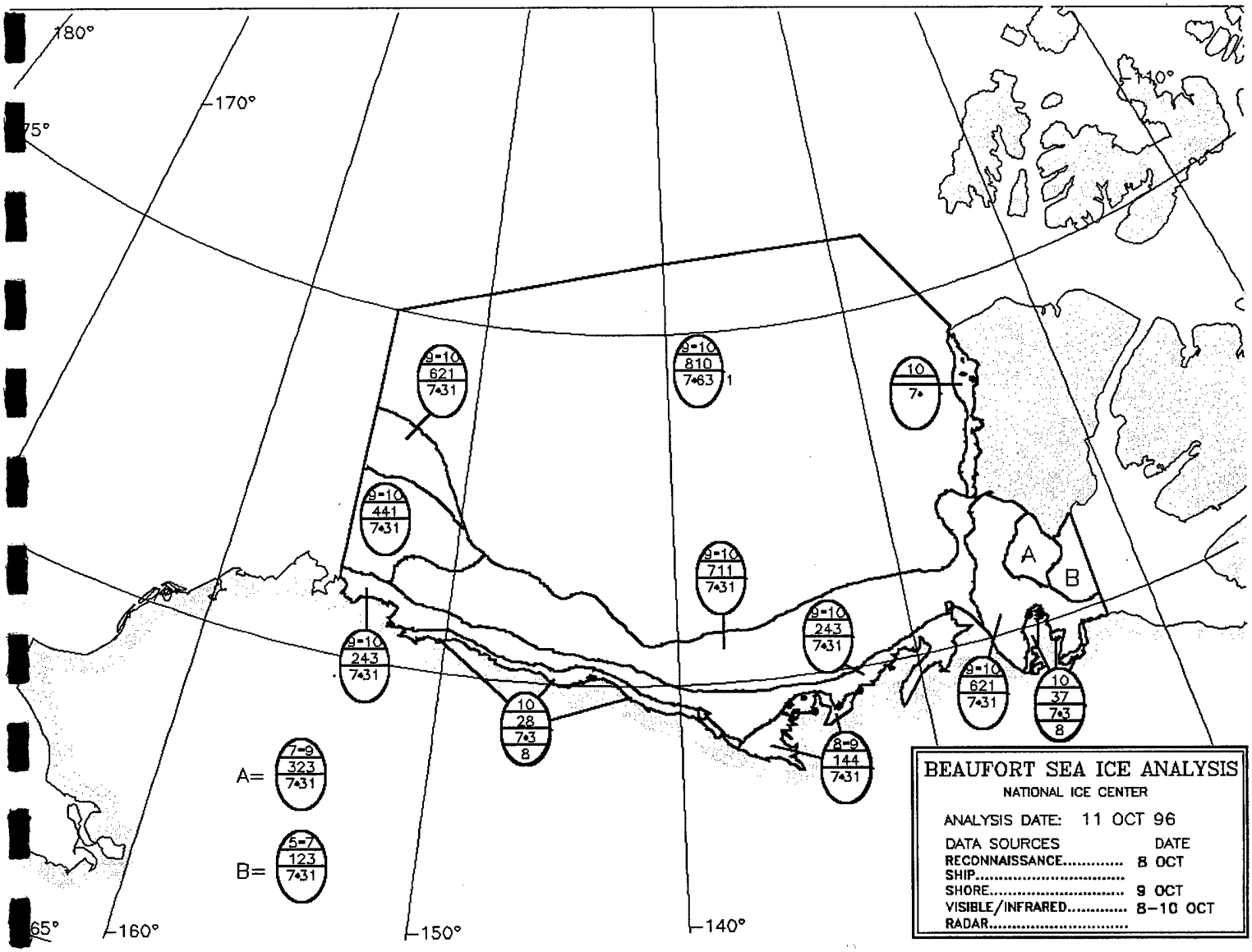

180°
170°
75°
110°
7-9
611
74•1
8-10
711
74•1
9-10
810
7•61
10
4•
3-5
310
74•1
4-6
221
74•1
10
4•
2-4
21
74•
8-10
720
74•1
SIF
1-3
20
74•
0-1
7•
6-8
340
74•1
6-8
61
74•
4-6
221
74•1
0-1
74•
1-3
11
74•
2-4
012
74•1
1-3
110
74•1
3-5
31
74•
6-8
124
74•1
1-3
110
74•1
SIF=SEA ICE FREE
65°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
RECONNAISSANCE..... 17 SEP 96
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16 SEP 96
RADAR.....

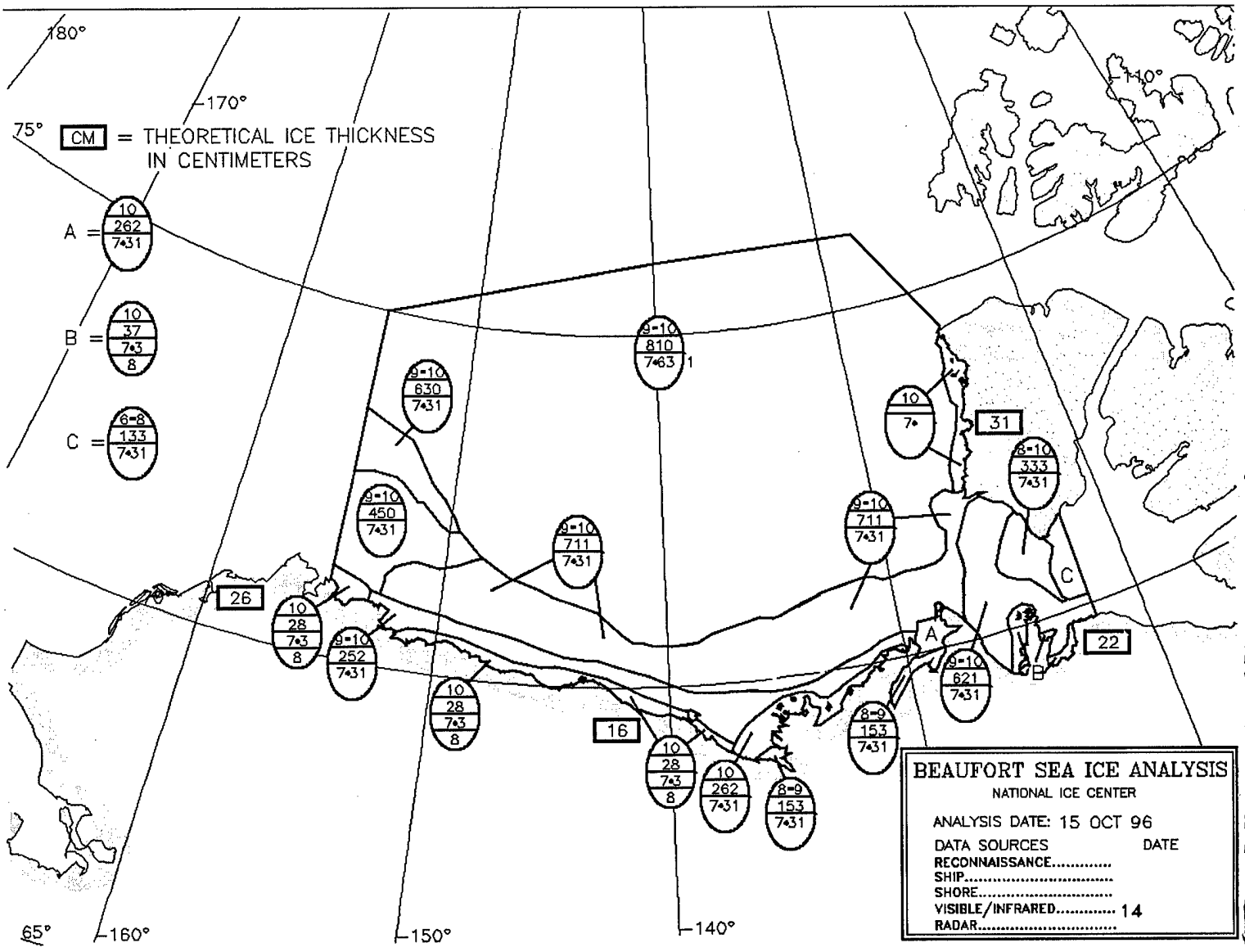

180°
170°
75°
A=
3-5
112
74•1
8-10
810
74•1
9-10
810
7•61
1-3
11
7•1
7-9
323
74•1
0-1
7•
7-9
431
74•1
8-10
720
74•1
10
4•
1-3
20
74•
0-1
7•
70°
4-6
104
74•1
0-1
7•
7-9
125
74•1
A
A
1-3
20
74•
0-1
74•
0-1
74•
0-1
74•
7-9
71
74•
1-3
11
74•
~10
110°
65°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 SEP 96
DATA SOURCES DATE
RECONNAISSANCE..... 22 SEP 96
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 3-24 SEP 96
RADAR.....

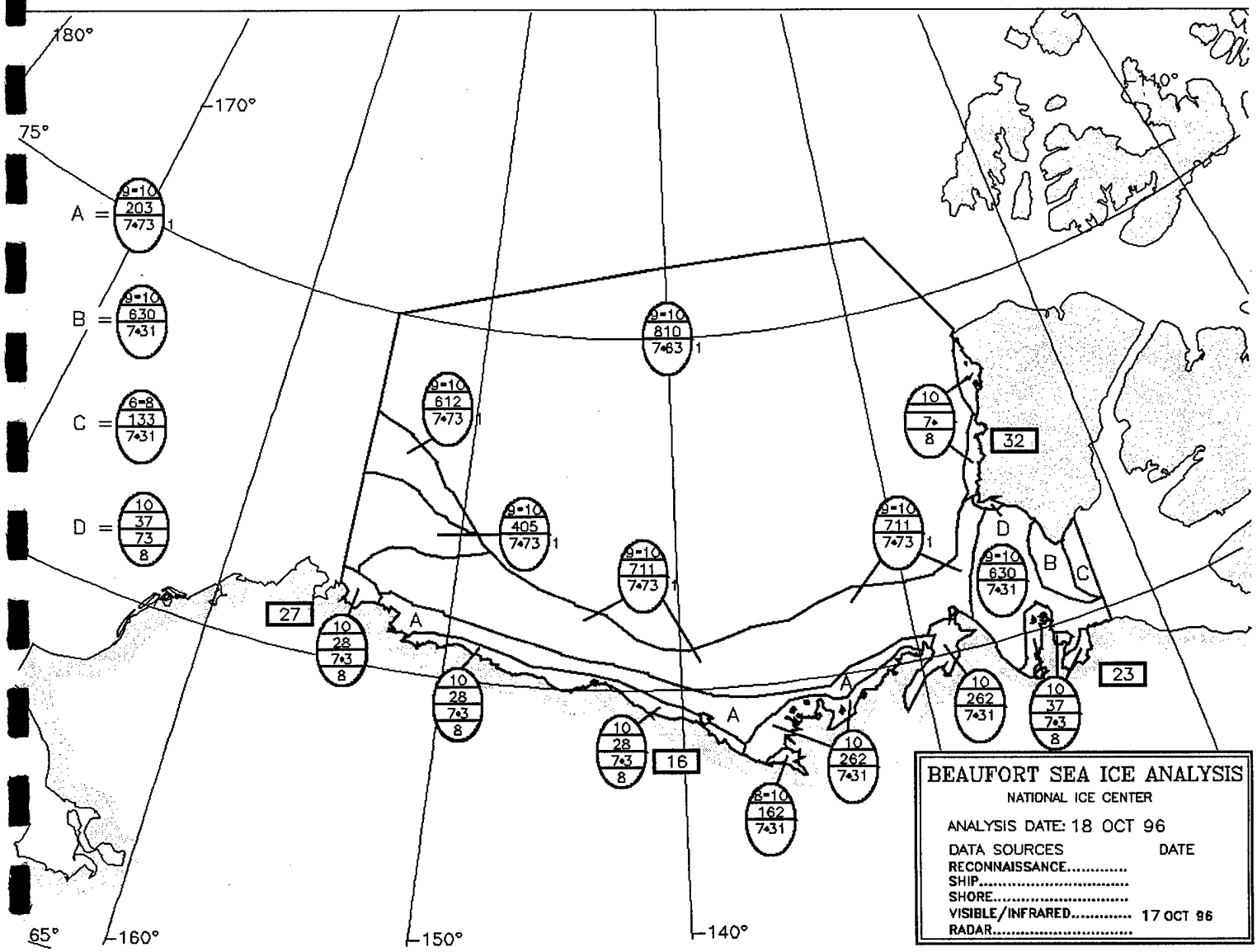

180°
170°
75°
65°
160°
150°
140°
110°
CM = THICKNESS
A= 9-10 / 522 / 7•31
B= 9-10 / 27 / 7•1
C= 9-10 / 54 / 7•1
9-10 / 810 / 7•63 1
9-10 / 612 / 7•31
4-6 / 23 / 7•1
7-9 / 422 / 7•31
9-10 / 810 / 7•31
9-10 / 711 / 7•31
0-1 / 7•
9-10 / 144 / 7•31
9-10 / 54 / 7•1
9-10 / 27 / 7•1
0-1 / 7•
0-1 / 7•
3-5 / 7•
10 / 7•
0-1 / 7•
14
6
5
A
B
C
B
9-10 / 711 / 7•31
1-3 / 7•
0-1 / 7•
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....30 SEP–01 OCT 96
RADAR.....

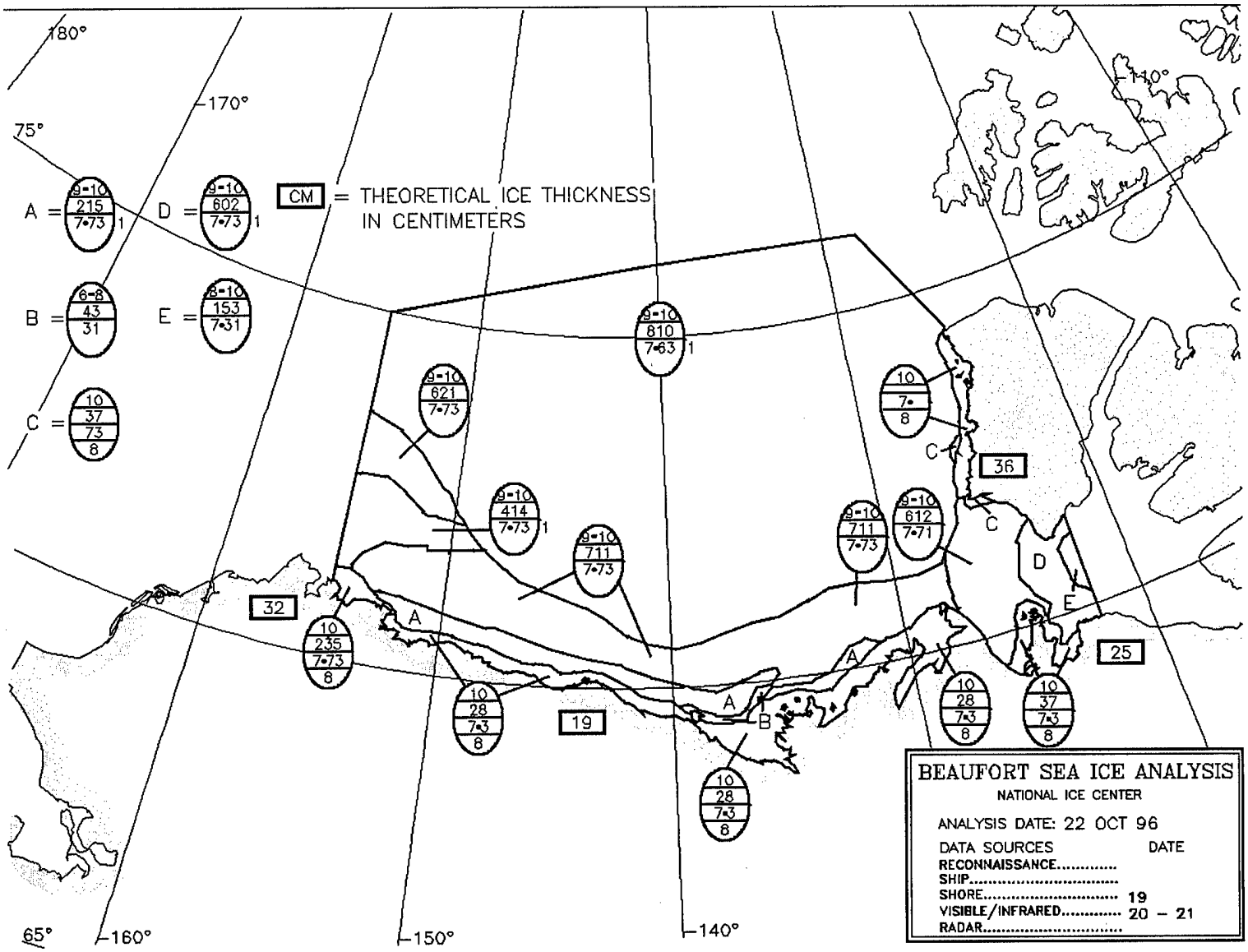

180°
170°
75°
140°
65°
160°
150°
140°
9-10
810
7•63
1
10
7•
20
9-10
612
7•31
8-9
711
7•31
3-5
13
7•1
8-10
423
7•31
7-8
611
7•31
9-10
711
7•31
11
6-8
16
7•1
9-10
252
7•31
9-10
711
7•31
9-10
252
7•31
4-6
312
7•31
6-8
25
31
5-7
213
7•31
12
10
28
7•3
8
08
9-10
243
7•31
9-10
243
7•31
5-7
132
7•31
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 4 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP..... 2 OCT
SHORE..... 2 OCT
VISIBLE/INFRARED.....2 – 3 OCT
RADAR.....

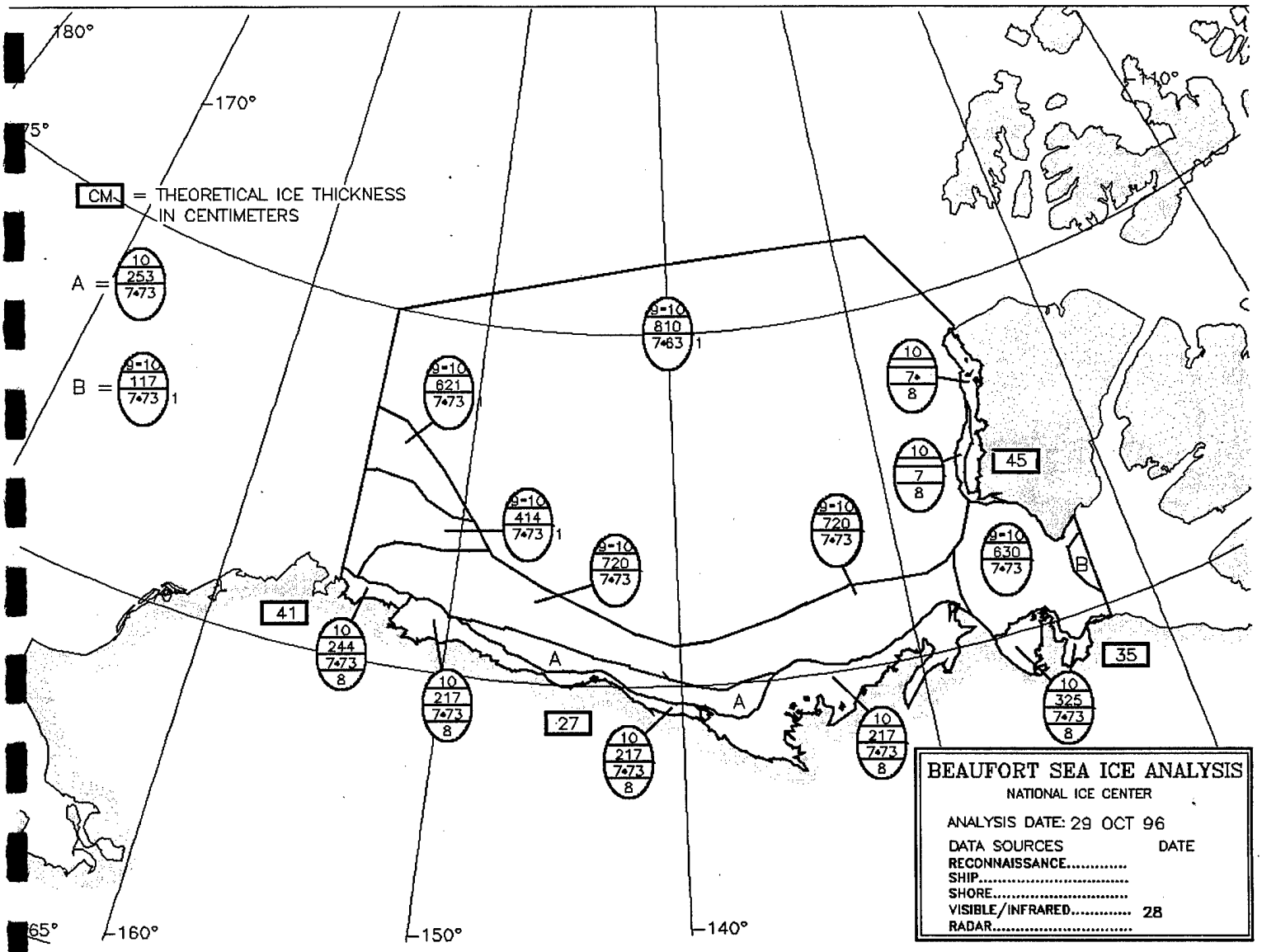

BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 08 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 05 OCT 96
VISIBLE/INFRARED..... 07 OCT 96
RADAR.....
CM =THICKNESS
180°
170°
160°
150°
140°
110°
75°
65°
A= 9-10 252 7•31
B= 7-9 431 7•31
9-10 621 7•31
8-10 441 7•31
9-10 810 7•63 1
10 7•
10 7•
25
6-8 223 7•31
5-7 123 7•31
B
9-10 711 7•31
14
8-9 144 7•31
A
10 28 7•3 8
10 28 7•3 8
12
A
10 28 7•3 8
7-9 143 7•31
7-9 143 7•31
9-10 252 7•31
7-9 620 7•31
7-9 233 7•31
17

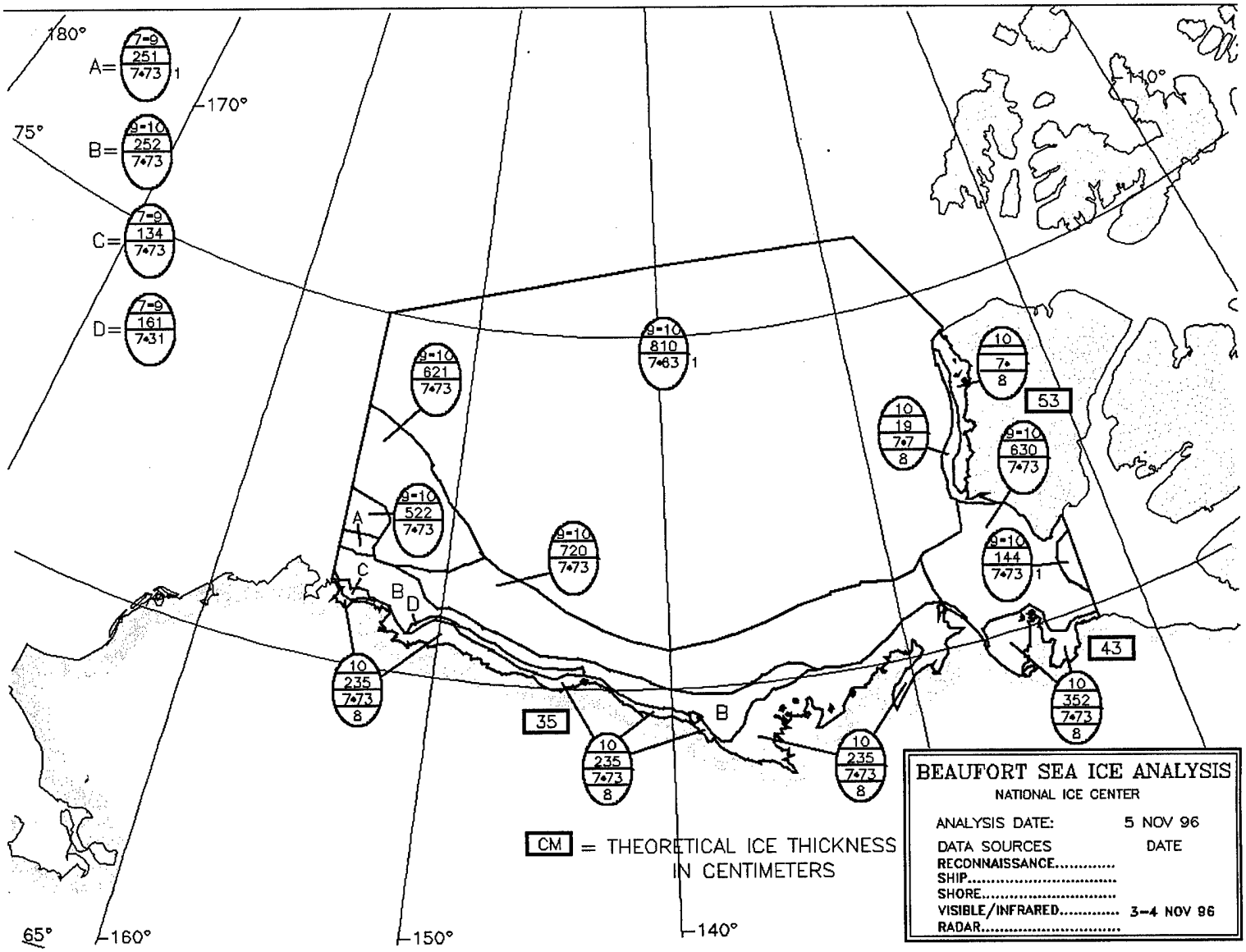

180°
170°
75°
140°
65°
160°
150°
140°
9-10
621
7•31
9-10
441
7•31
9-10
243
7•31
10
28
7•3
8
9-10
810
7•63
1
9-10
711
7•31
9-10
243
7•31
8-9
144
7•31
10
7•
9-10
621
7•31
10
37
7•3
8
A
B
A=
7-9
323
7•31
B=
5-7
123
7•31
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 11 OCT 96
DATA SOURCES DATE
RECONNAISSANCE..... 8 OCT
SHIP.....
SHORE..... 9 OCT
VISIBLE/INFRARED..... 8-10 OCT
RADAR.....

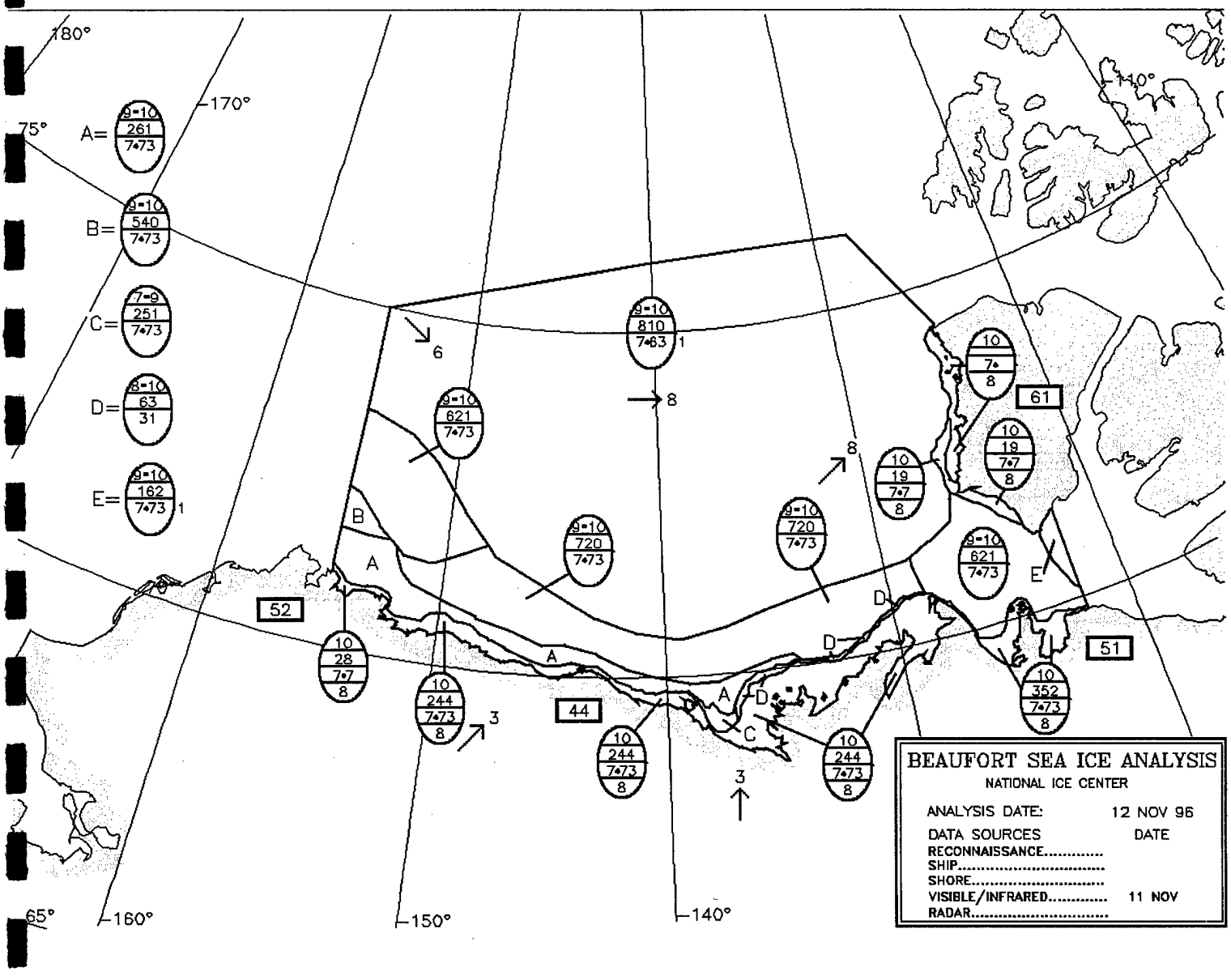

180°
170°
75°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 10 / 262 / 7•31
B = 10 / 37 / 7•3 / 8
C = 6-8 / 133 / 7•31
9-10 / 810 / 7•63 1
9-10 / 630 / 7•31
10 / 7•
31
8-10 / 333 / 7•31
9-10 / 450 / 7•31
9-10 / 711 / 7•31
9-10 / 711 / 7•31
C
26
10 / 28 / 7•3 / 8
9-10 / 252 / 7•31
10 / 28 / 7•3 / 8
A
22
9-10 / 621 / 7•31
B
16
10 / 28 / 7•3 / 8
10 / 262 / 7•31
8-9 / 153 / 7•31
8-9 / 153 / 7•31
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 14
RADAR.....

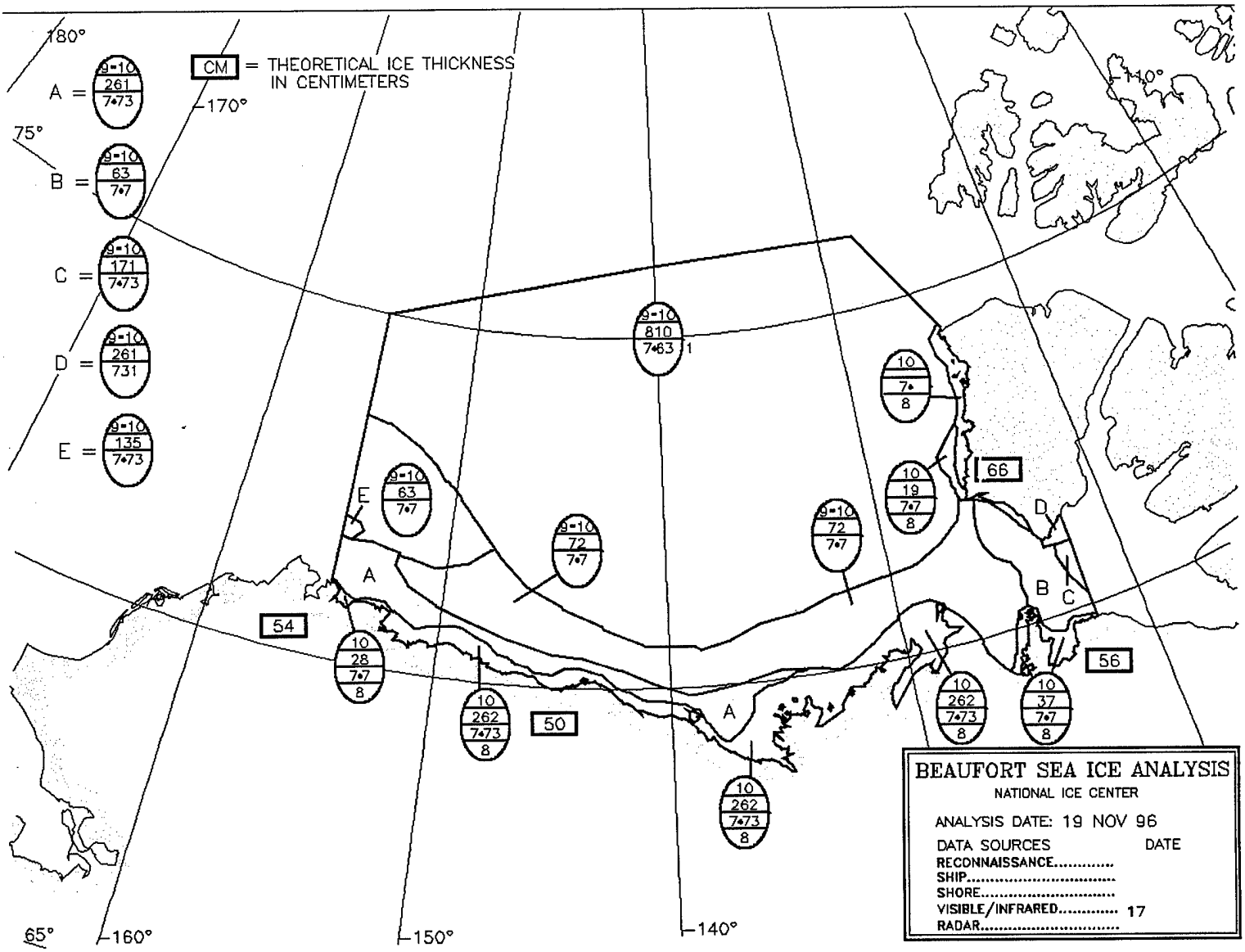

180°
170°
75°
A = 9-10 / 203 / 7•73 1
B = 9-10 / 630 / 7•31
C = 6-8 / 133 / 7•31
D = 10 / 37 / 73 / 8
9-10 / 810 / 7•83 1
9-10 / 612 / 7•73 1
9-10 / 405 / 7•73 1
9-10 / 711 / 7•73 1
9-10 / 711 / 7•73 1
10 / 7• / 8
32
D
B
C
9-10 / 630 / 7•31
27
10 / 28 / 7•3 / 8
A
10 / 28 / 7•3 / 8
10 / 28 / 7•3 / 8
16
A
A
10 / 262 / 7•31
8-10 / 162 / 7•31
10 / 262 / 7•31
10 / 37 / 7•3 / 8
23
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 18 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17 OCT 96
RADAR.....

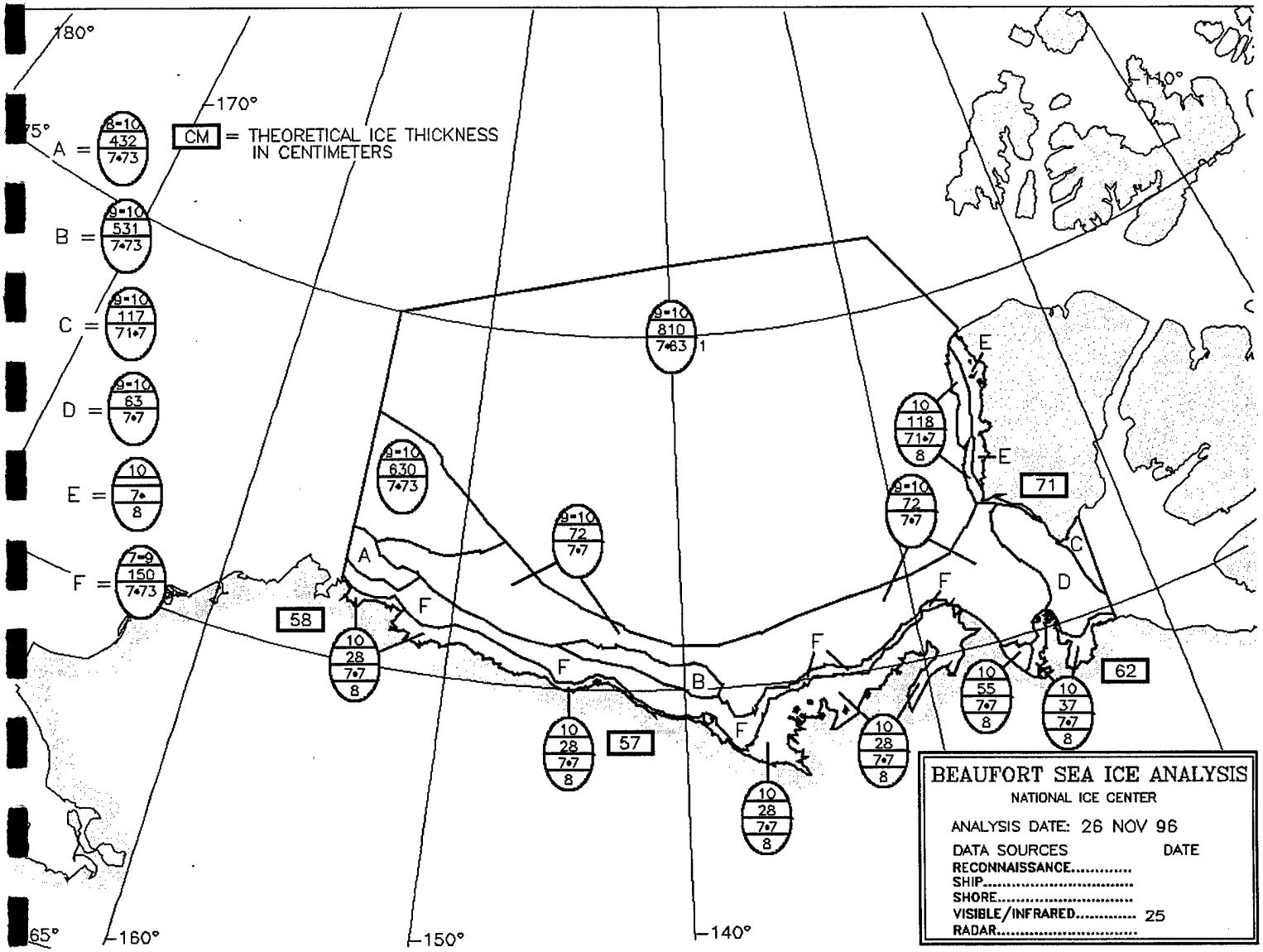

180°
170°
75°
140°
65°
160°
150°
140°
A = 9-10 / 215 / 7•73 1
D = 9-10 / 602 / 7•73 1
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
B = 6-8 / 43 / 31
E = 8-10 / 153 / 7•31
C = 10 / 37 / 73 / 8
9-10 / 810 / 7•63 1
9-10 / 621 / 7•73
10 / 7• / 8
36
9-10 / 414 / 7•73 1
9-10 / 711 / 7•73
9-10 / 711 / 7•73
9-10 / 612 / 7•71
32
10 / 235 / 7•73 / 8
10 / 28 / 7•3 / 8
19
10 / 28 / 7•3 / 8
10 / 28 / 7•3 / 8
10 / 37 / 7•3 / 8
25
A
B
C
D
E
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE..... 19
VISIBLE/INFRARED..... 20 – 21
RADAR.....

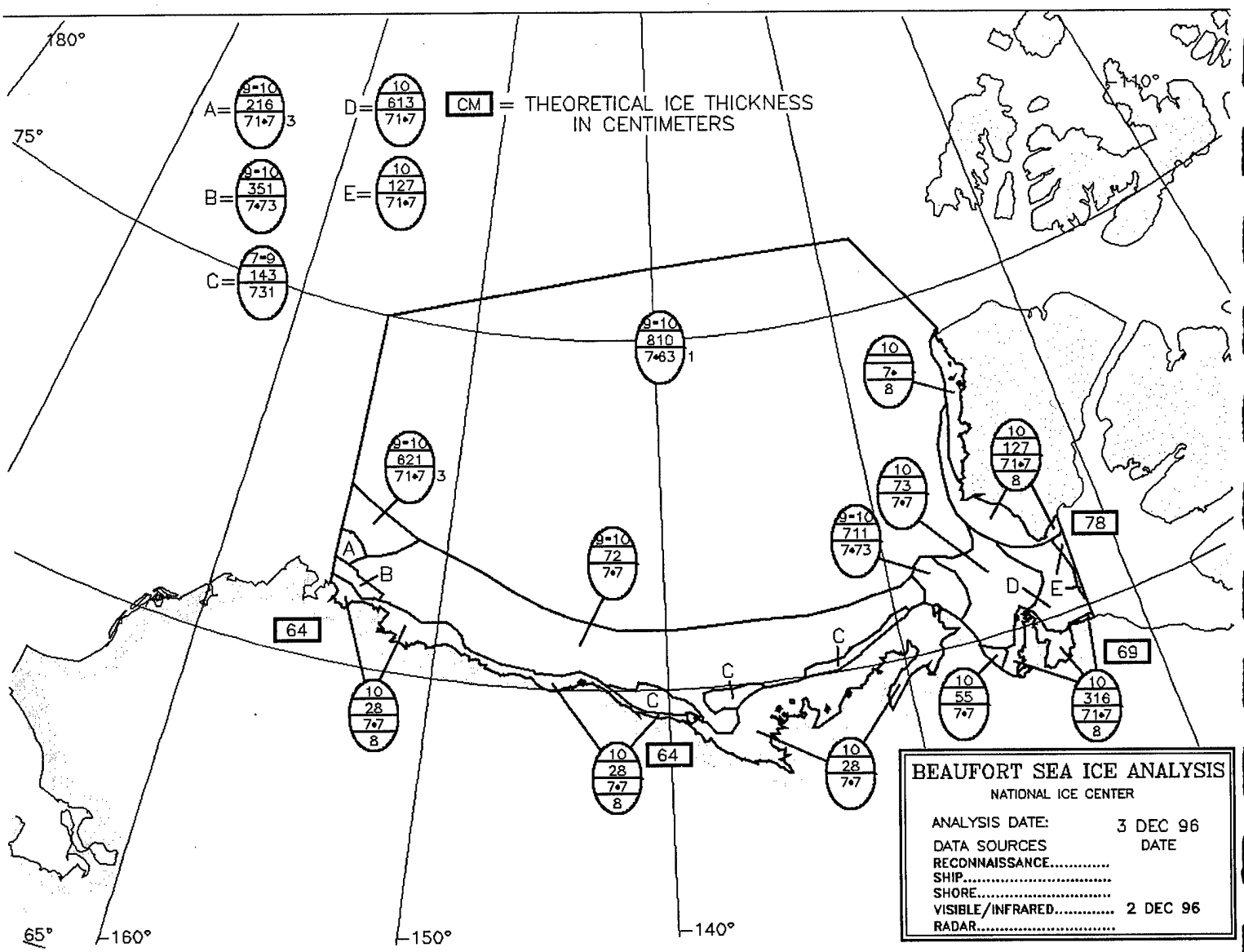

180°
170°
75°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A =
B =
10
253
7•73
9-10
117
7•73
1
9-10
810
7•83
1
9-10
621
7•73
1
10
7•
8
10
7
8
45
9-10
414
7•73
1
9-10
720
7•73
9-10
720
7•73
9-10
630
7•73
B
41
10
244
7•73
8
10
217
7•73
8
A
A
27
10
217
7•73
8
10
217
7•73
8
35
10
325
7•73
8
10°
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28
RADAR.....

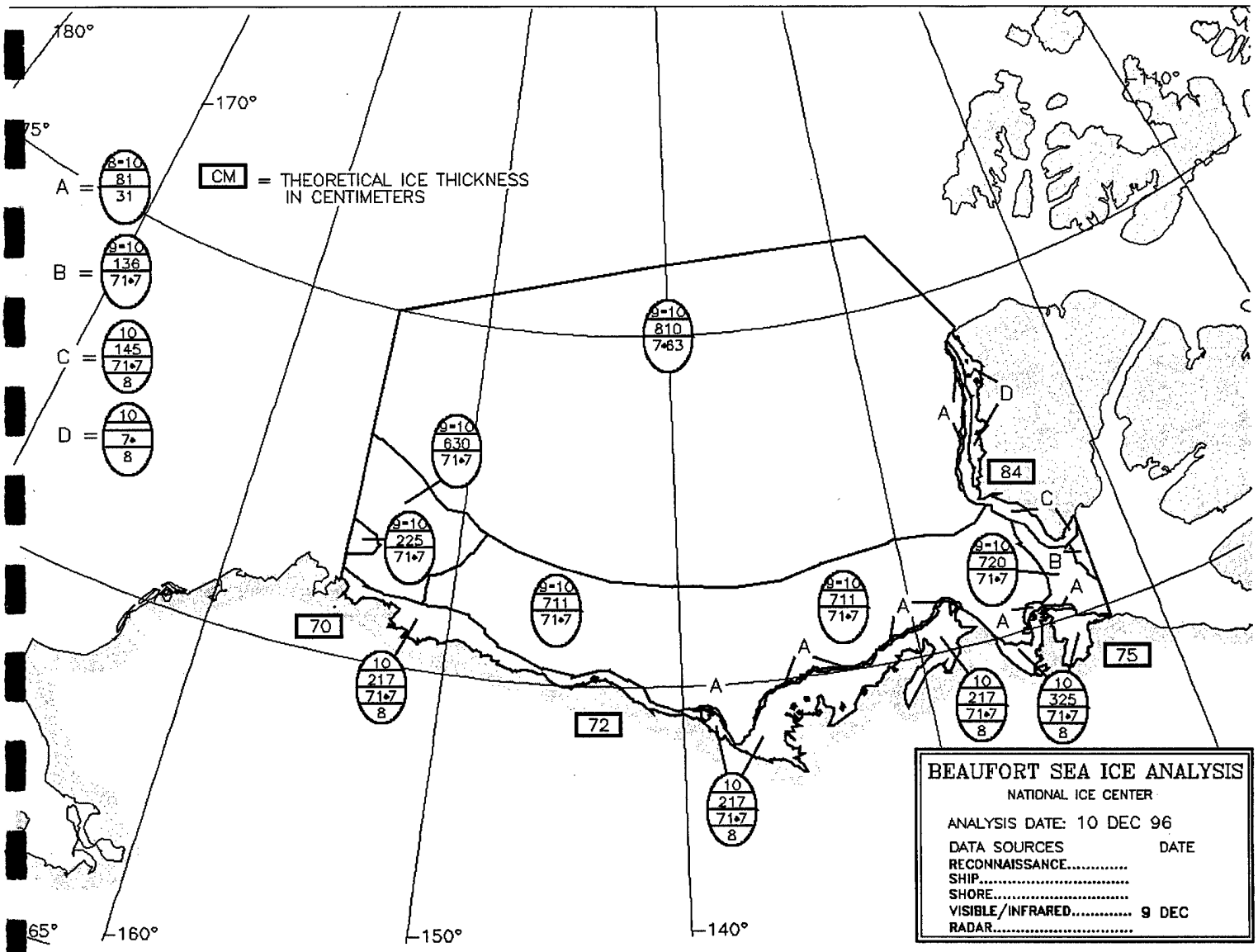

180°
170°
75°
65°
160°
150°
140°
110°
A= 7-9 / 251 / 7•73 1
B= 9-10 / 252 / 7•73
C= 7-9 / 134 / 7•73
D= 7-9 / 161 / 7•31
9-10 / 621 / 7•73
9-10 / 810 / 7•63 1
10 / 7• / 8
53
10 / 19 / 7•7 / 8
9-10 / 630 / 7•73
9-10 / 522 / 7•73
9-10 / 720 / 7•73
9-10 / 144 / 7•73 1
43
10 / 235 / 7•73 / 8
35
10 / 352 / 7•73 / 8
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 5 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 3-4 NOV 96
RADAR.....

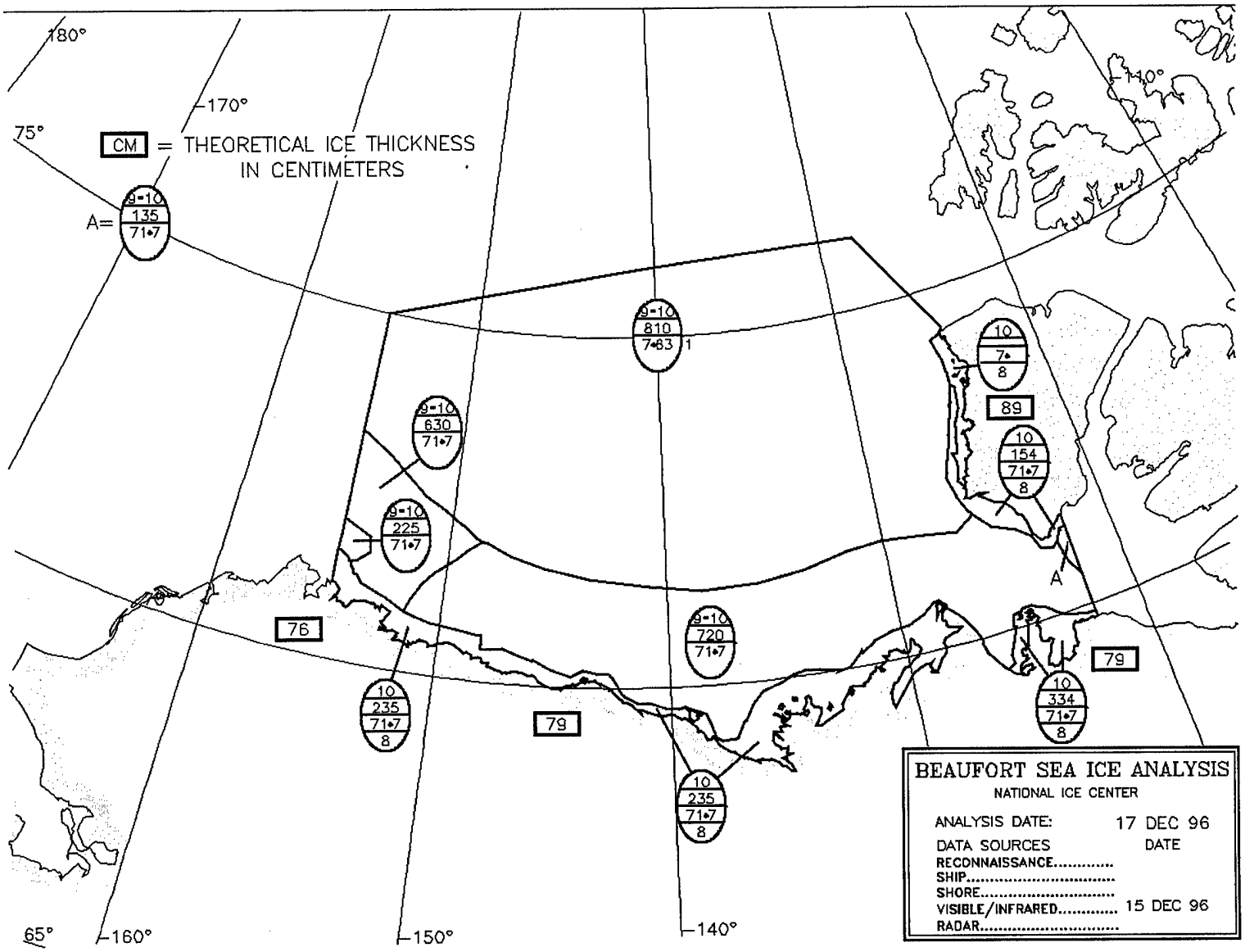

180°
170°
160°
150°
140°
75°
65°
A= 9-10 / 261 / 7•73
B= 9-10 / 540 / 7•73
C= 7-9 / 251 / 7•73
D= 8-10 / 63 / 31
E= 9-10 / 162 / 7•73 1
9-10 / 810 / 7•63 1
9-10 / 621 / 7•73
9-10 / 720 / 7•73
9-10 / 720 / 7•73
10 / 7• / 8
10 / 19 / 7•7 / 8
10 / 19 / 7•7 / 8
9-10 / 621 / 7•73
10 / 28 / 7•7 / 8
10 / 244 / 7•73 / 8
10 / 244 / 7•73 / 8
10 / 244 / 7•73 / 8
10 / 352 / 7•73 / 8
52
44
61
51
A
B
C
D
E
6
8
8
3
3
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11 NOV
RADAR.....

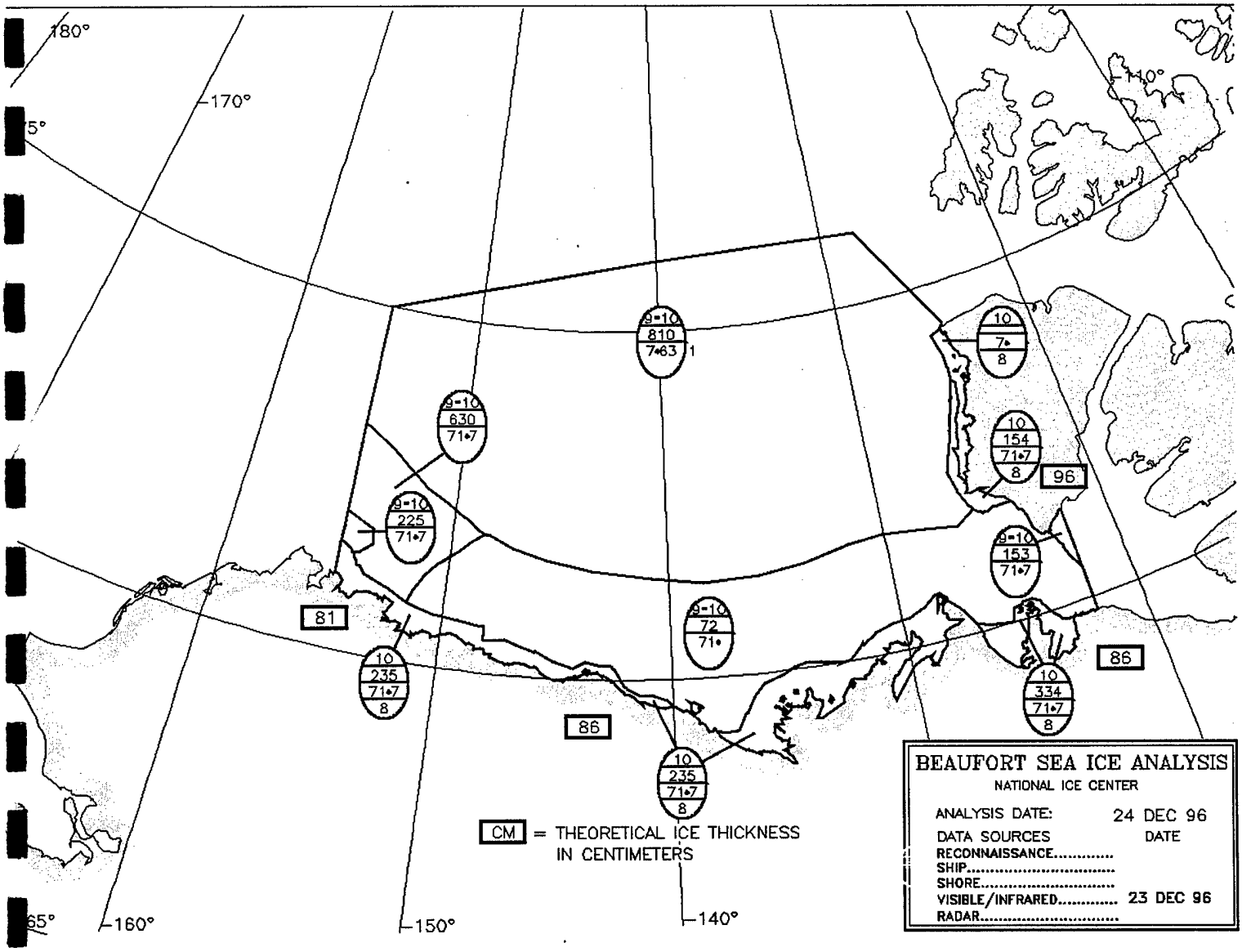

180°
170°
160°
150°
140°
110°
75°
65°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 9-10 / 261 / 7•73
B = 9-10 / 63 / 7•7
C = 9-10 / 171 / 7•73
D = 9-10 / 261 / 731
E = 9-10 / 135 / 7•73
9-10 / 810 / 7•63 1
10 / 7• / 8
10 / 19 / 7•7 / 8
9-10 / 63 / 7•7
9-10 / 72 / 7•7
9-10 / 72 / 7•7
10 / 28 / 7•7 / 8
10 / 262 / 7•73 / 8
10 / 262 / 7•73 / 8
10 / 262 / 7•73 / 8
10 / 37 / 7•7 / 8
54
50
66
56
A
B
C
D
E
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17
RADAR.....

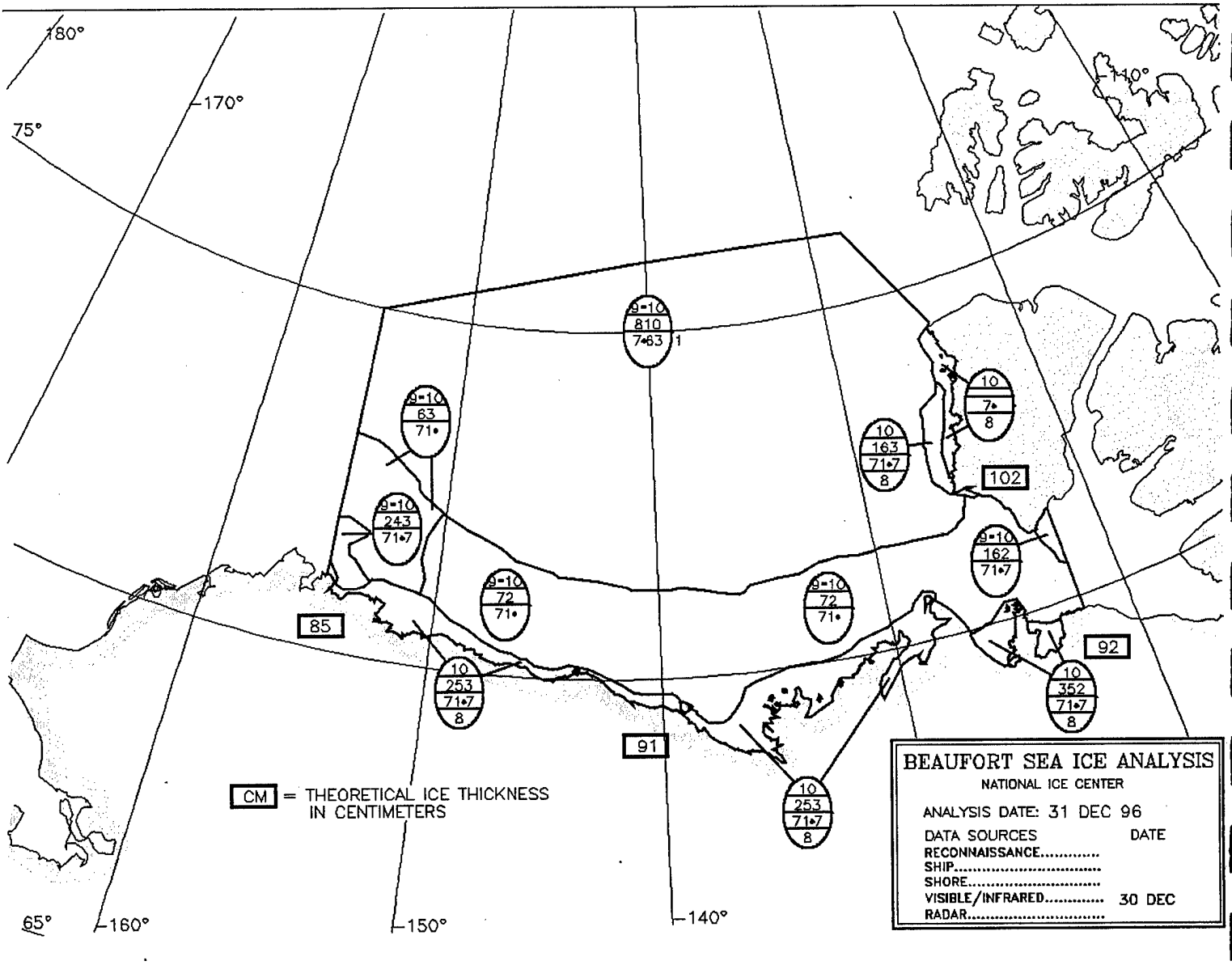

180°
170°
160°
150°
140°
75°
65°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 8-10 / 432 / 7•73
B = 9-10 / 531 / 7•73
C = 9-10 / 117 / 71•7
D = 9-10 / 63 / 7•7
E = 10 / 7• / 8
F = 7-9 / 150 / 7•73
9-10 / 810 / 7•63 1
9-10 / 630 / 7•73
9-10 / 72 / 7•7
10 / 118 / 71•7 / 8
9-10 / 72 / 7•7
10 / 28 / 7•7 / 8
10 / 55 / 7•7 / 8
10 / 37 / 7•7 / 8
58
57
71
62
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25
RADAR.....

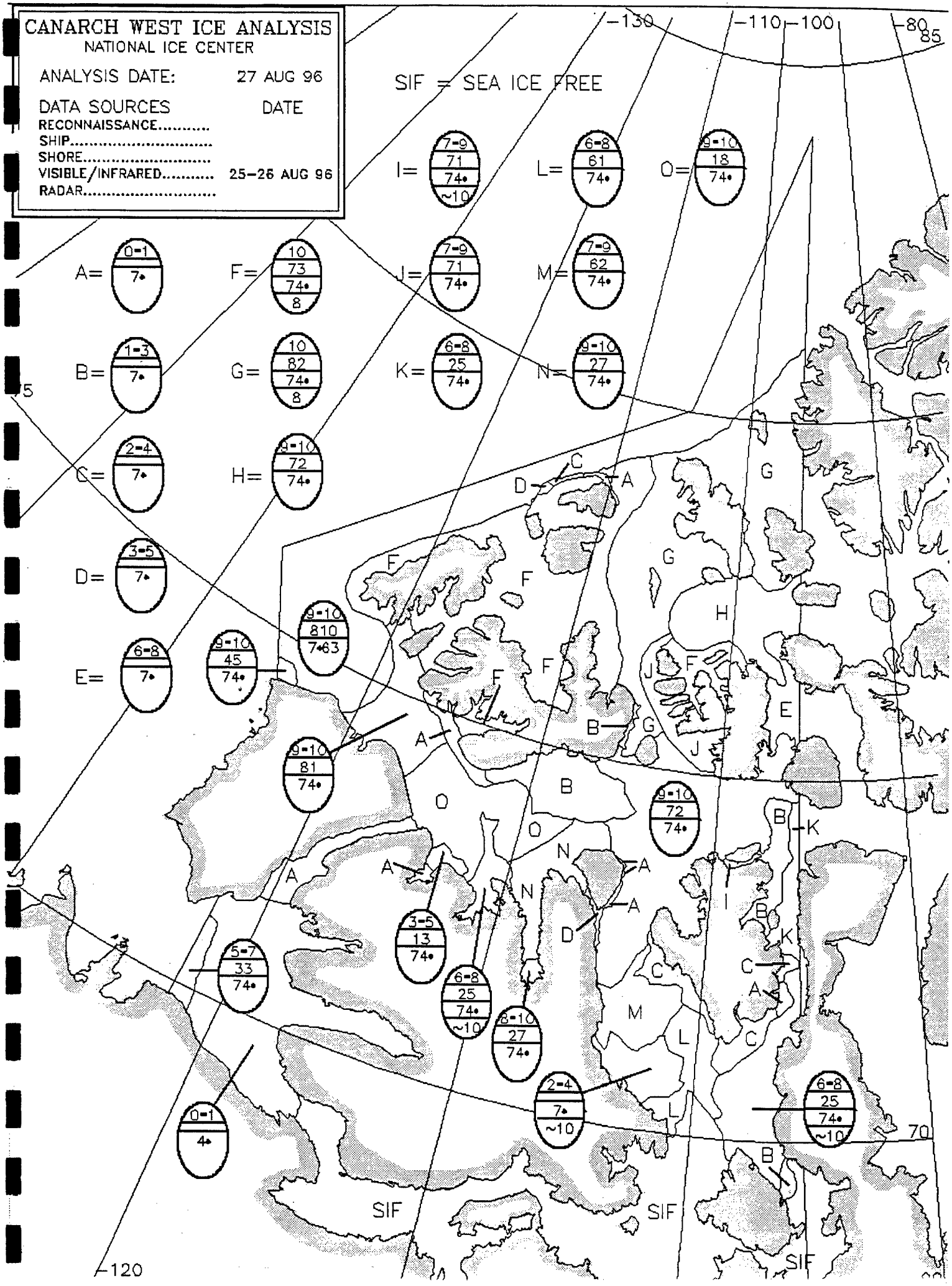

180°
75°
A= 9-10 / 216 / 71•7 3
B= 9-10 / 351 / 7•73
C= 7-9 / 143 / 731
D= 10 / 613 / 71•7
E= 10 / 127 / 71•7
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
9-10 / 810 / 7•63 1
10 / 7• / 8
9-10 / 621 / 71•7 3
10 / 127 / 71•7 / 8
10 / 73 / 7•7
9-10 / 711 / 7•73
9-10 / 72 / 7•7
78
64
69
10 / 28 / 7•7 / 8
10 / 55 / 7•7
10 / 316 / 71•7 / 8
10 / 28 / 7•7
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 2 DEC 96
RADAR.....

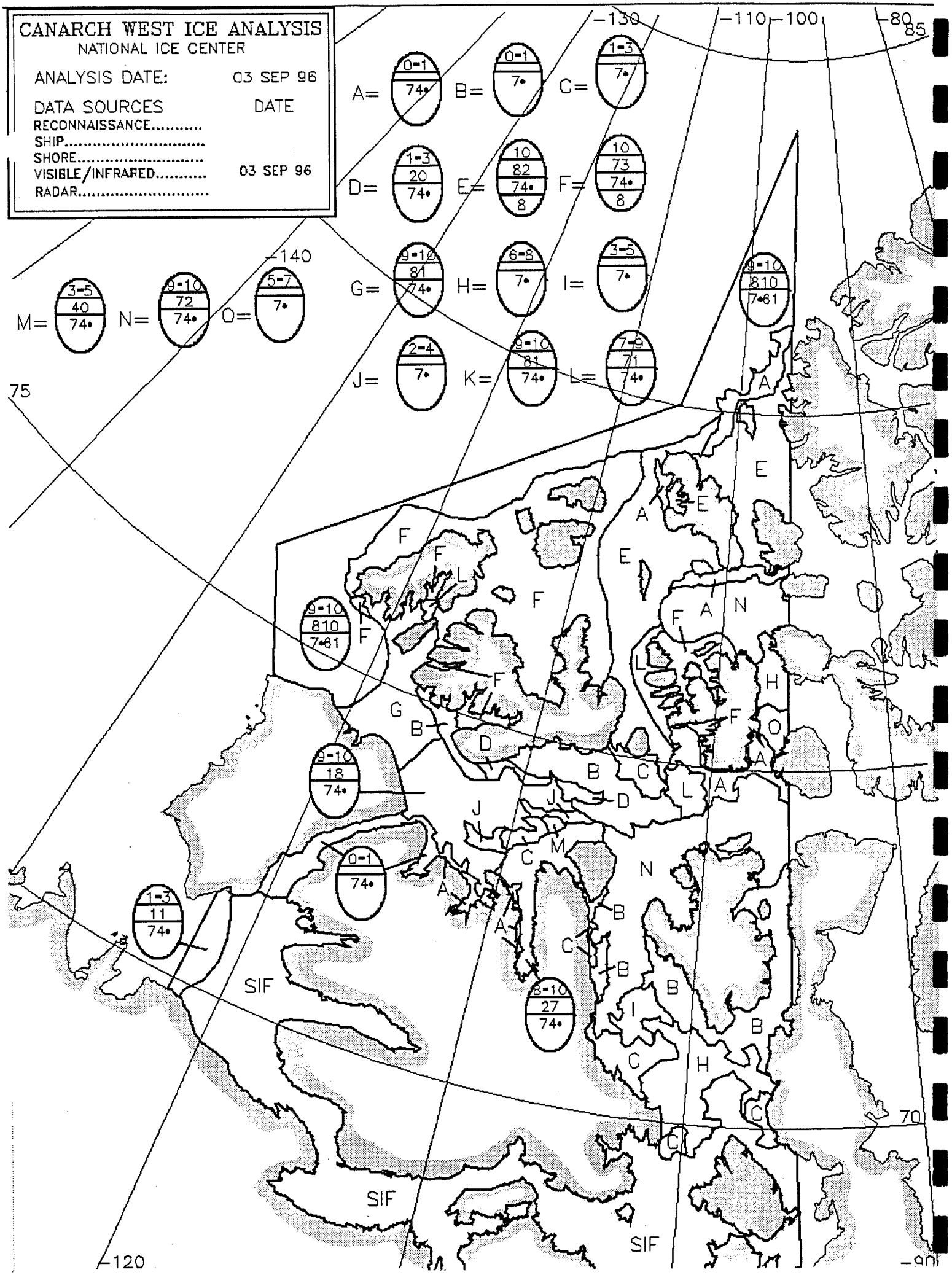

180°
170°
75°
65°
160°
150°
140°
110°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A = 9-10 / 81 / 31
B = 9-10 / 136 / 71•7
C = 10 / 145 / 71•7 / 8
D = 10 / 7• / 8
9-10 / 810 / 7•63
9-10 / 630 / 71•7
9-10 / 225 / 71•7
9-10 / 711 / 71•7
9-10 / 711 / 71•7
9-10 / 720 / 71•7
10 / 217 / 71•7 / 8
10 / 217 / 71•7 / 8
10 / 217 / 71•7 / 8
10 / 325 / 71•7 / 8
70
72
75
84
A
B
C
D
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9 DEC
RADAR.....

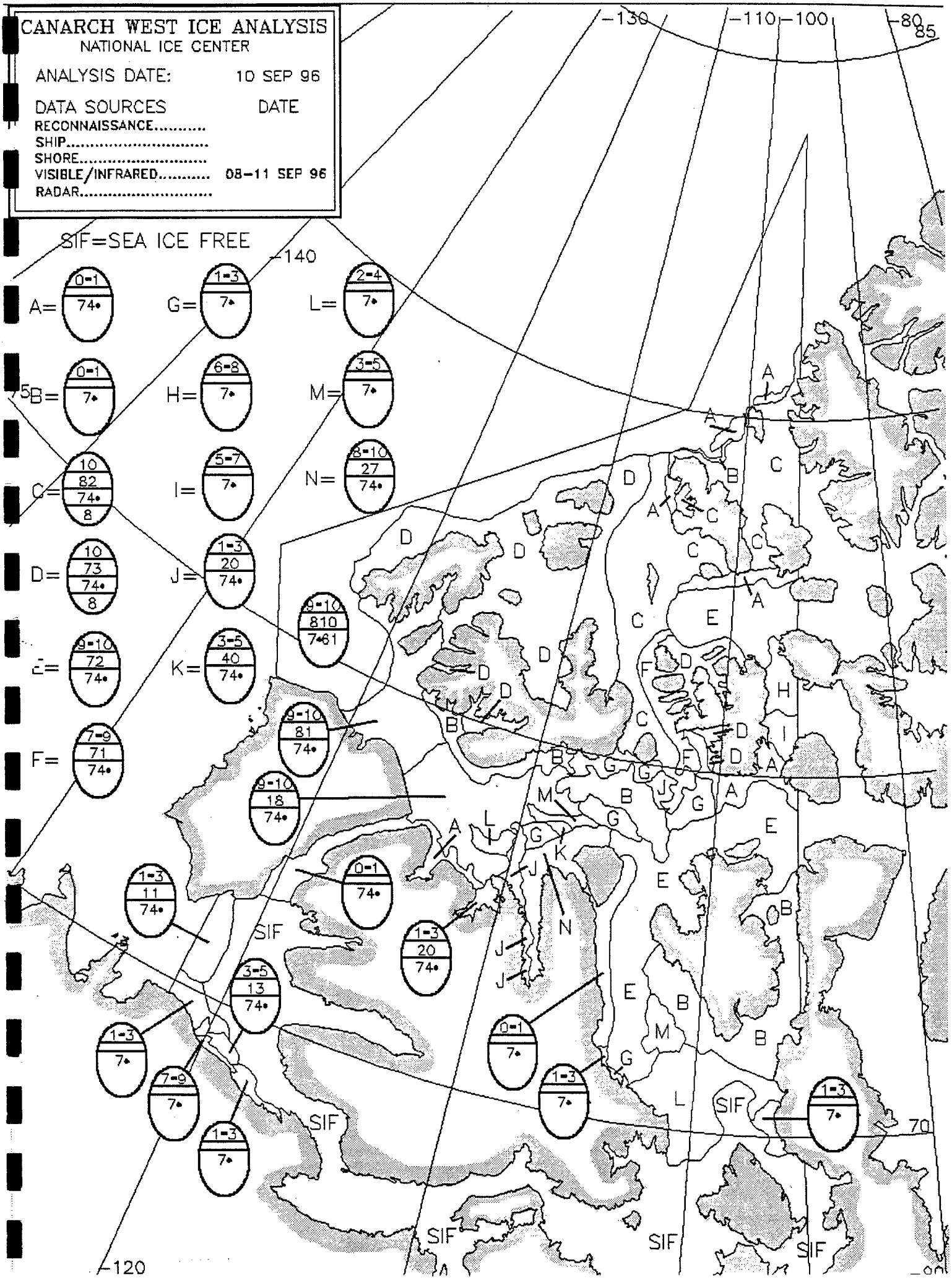

180°
170°
75°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A=
9-10
135
71•7
9-10
810
7•83
1
9-10
630
71•7
9-10
225
71•7
10
7•
8
89
10
154
71•7
8
A
76
9-10
720
71•7
79
10
235
71•7
8
79
10
334
71•7
8
10
235
71•7
8
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15 DEC 96
RADAR.....

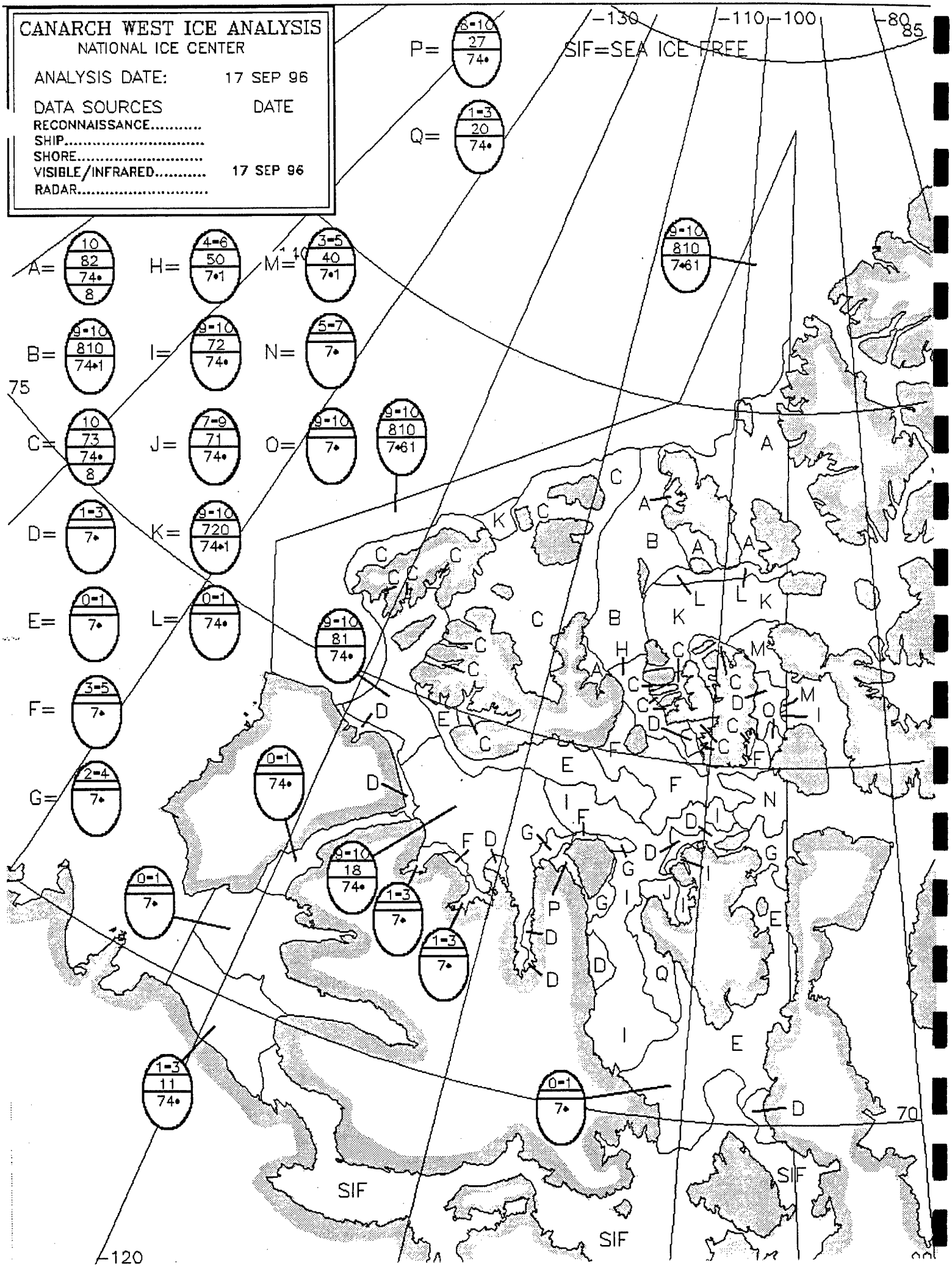

180°
170°
5°
65°
160°
150°
140°
9-10
810
7•63
1
9-10
630
71•7
9-10
225
71•7
10
235
71•7
8
81
86
9-10
72
71•
10
235
71•7
8
10
7•
8
10
154
71•7
8
96
9-10
153
71•7
86
10
334
71•7
8
CM = THEORETICAL ICE THICKNESS
IN CENTIMETERS
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 23 DEC 96
RADAR.....

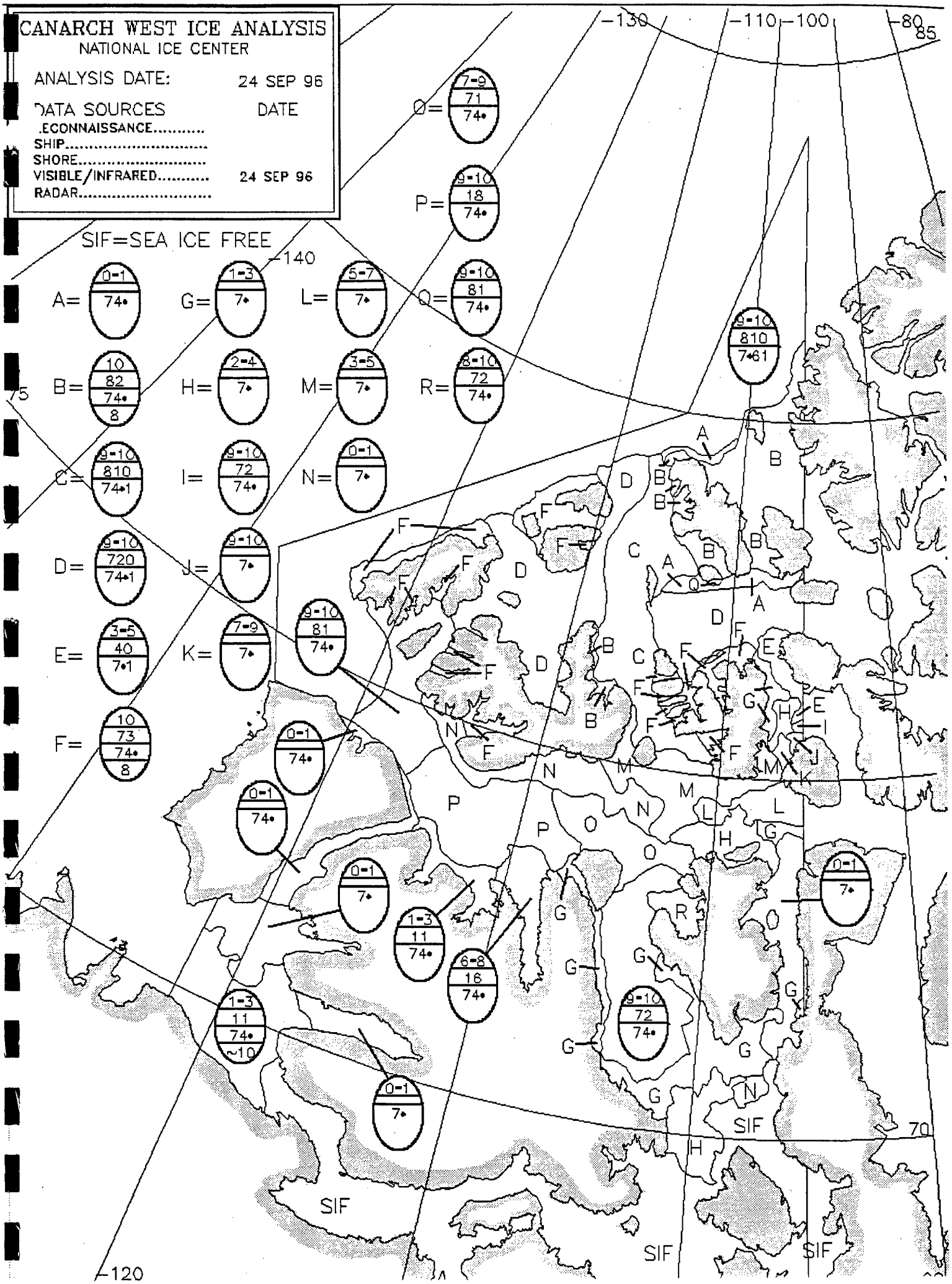

180°
170°
75°
140°
9-10
810
7•63
1
9-10
63
71•
9-10
243
71•7
9-10
72
71•
9-10
72
71•
10
163
71•7
8
10
7•
8
102
9-10
162
71•7
85
91
92
10
253
71•7
8
10
253
71•7
8
10
352
71•7
8
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
65°
160°
150°
140°
BEAUFORT SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES
DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 30 DEC
RADAR.....

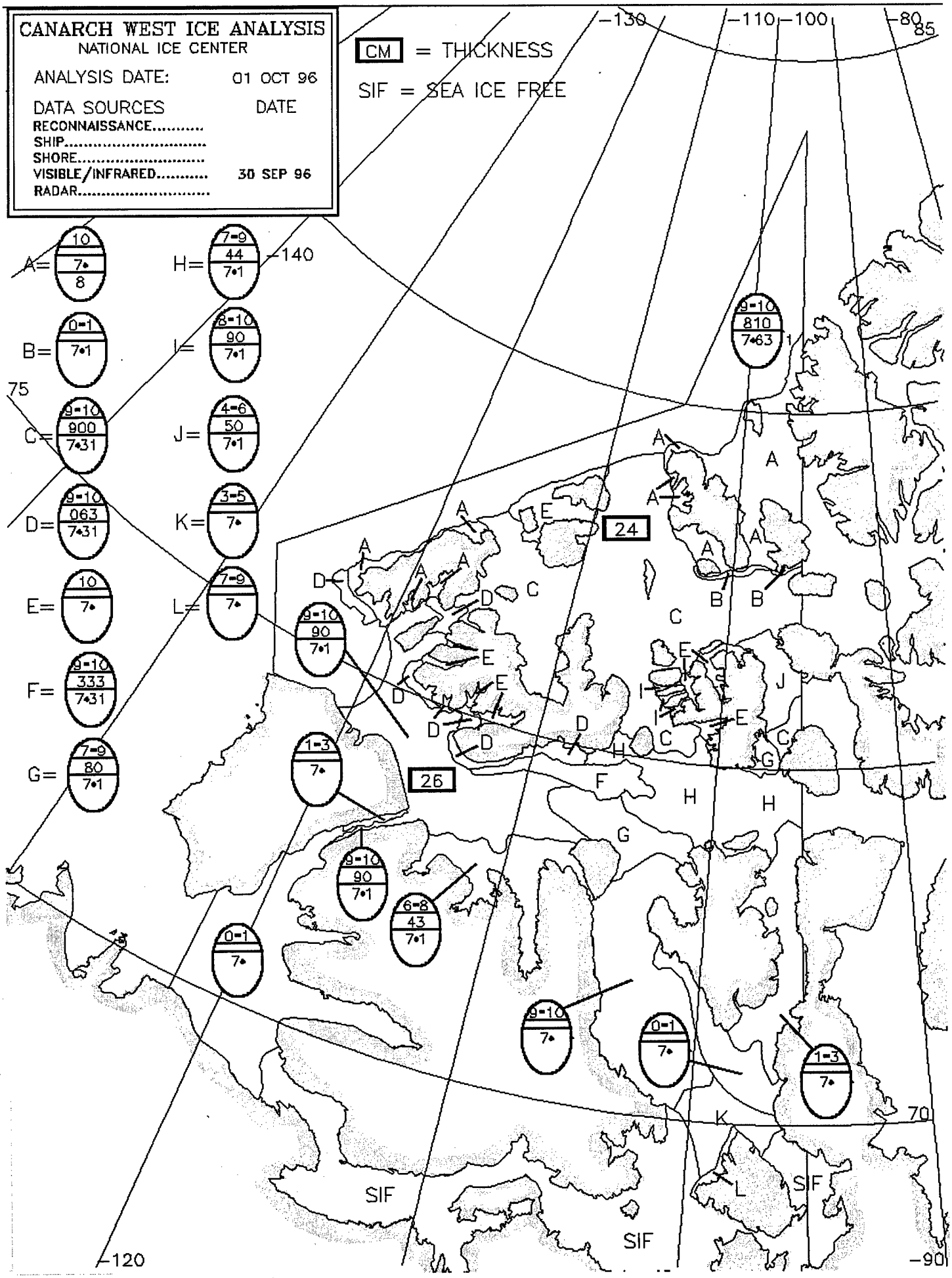

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 AUG 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25-26 AUG 96
RADAR.....
SIF = SEA ICE FREE
I= 7-9 71 74• ~10
L= 6-8 61 74•
O= 9-10 18 74•
A= 0-1 7•
F= 10 73 74• 8
J= 7-9 71 74•
M= 7-9 62 74•
B= 1-3 7•
G= 10 82 74• 8
K= 6-8 25 74•
N= 9-10 27 74•
C= 2-4 7•
H= 9-10 72 74•
D= 3-5 7•
E= 6-8 7•
9-10 810 7•63
9-10 45 74•
9-10 81 74•
9-10 72 74•
3-5 13 74•
5-7 33 74•
6-8 25 74• ~10
8-10 27 74•
2-4 7• ~10
6-8 25 74• ~10
0-1 4•
SIF
-130
-110
-100
-80
85
70
-120

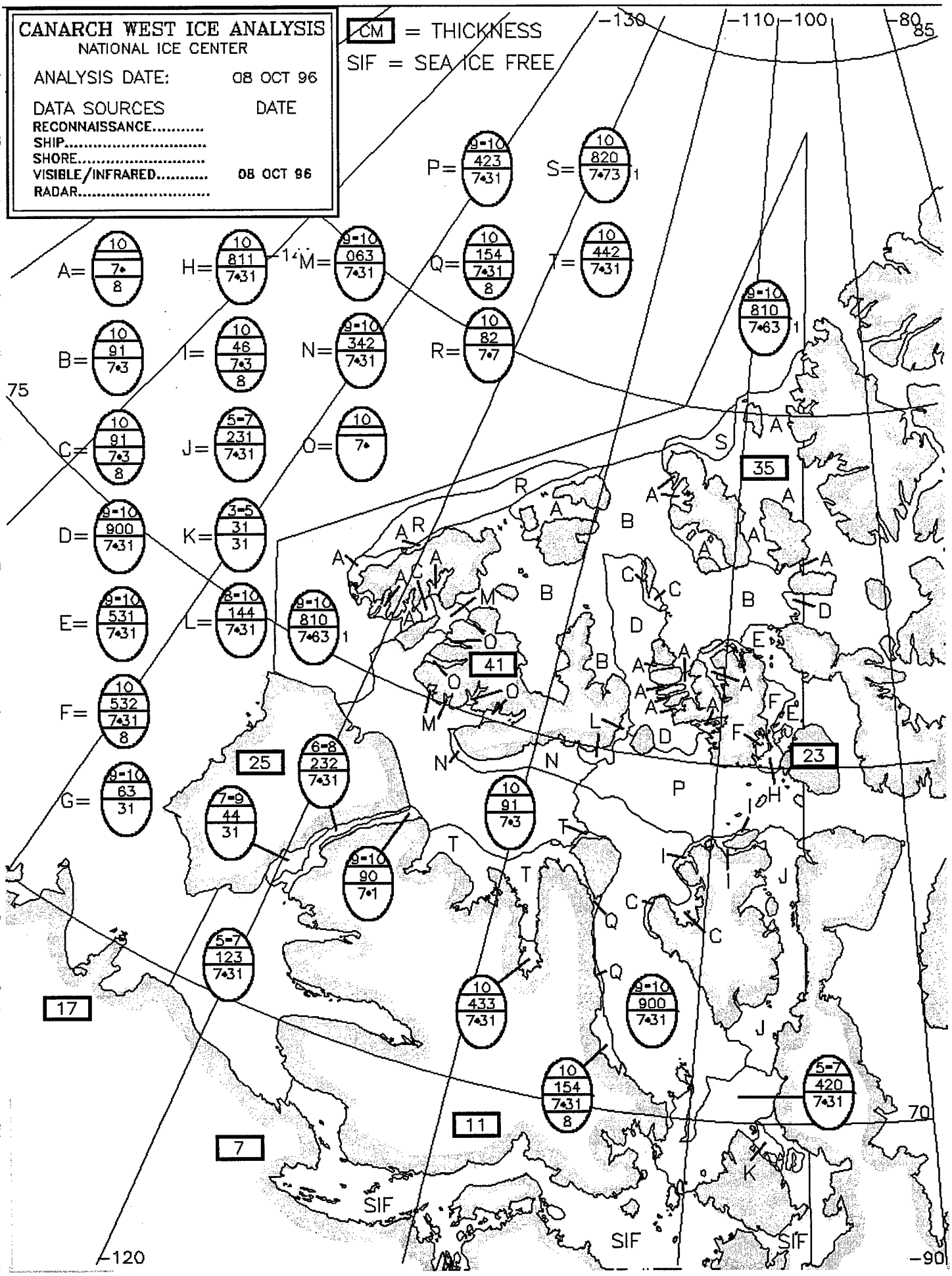

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 03 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 03 SEP 96
RADAR.....
A= 0-1 / 74•
B= 0-1 / 7•
C= 1-3 / 7•
D= 1-3 / 20 / 74•
E= 10 / 82 / 74• / 8
F= 10 / 73 / 74• / 8
G= 9-10 / 81 / 74•
H= 6-8 / 7•
I= 3-5 / 7•
J= 2-4 / 7•
K= 9-10 / 81 / 74•
L= 7-9 / 71 / 74•
M= 3-5 / 40 / 74•
N= 9-10 / 72 / 74•
O= 5-7 / 7•
9-10 / 810 / 7•61
9-10 / 18 / 74•
0-1 / 74•
1-3 / 11 / 74•
8-10 / 27 / 74•
SIF
-130
-110
-100
-80
85
-140
75
70
-120
-90

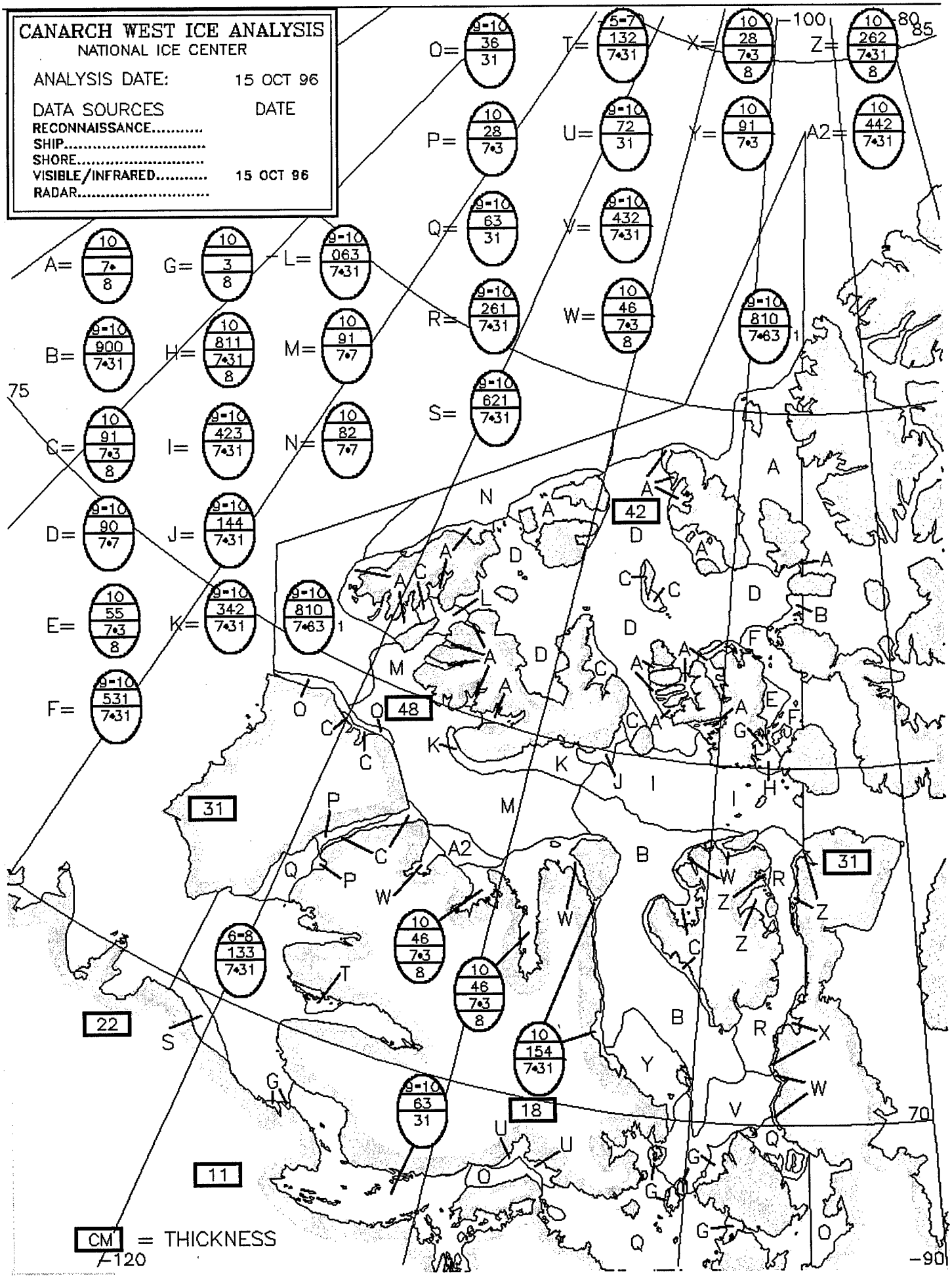

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 08-11 SEP 96
RADAR.....
SIF=SEA ICE FREE
A= 0-1 / 74•
G= 1-3 / 7•
L= 2-4 / 7•
B= 0-1 / 7•
H= 6-8 / 7•
M= 3-5 / 7•
C= 10 / 82 / 74• / 8
I= 5-7 / 7•
N= 8-10 / 27 / 74•
D= 10 / 73 / 74• / 8
J= 1-3 / 20 / 74•
E= 9-10 / 72 / 74•
K= 3-5 / 40 / 74•
F= 7-9 / 71 / 74•
9-10 / 810 / 7•61
9-10 / 81 / 74•
9-10 / 18 / 74•
1-3 / 11 / 74•
0-1 / 74•
1-3 / 20 / 74•
3-5 / 13 / 74•
1-3 / 7•
7-9 / 7•
1-3 / 7•
0-1 / 7•
1-3 / 7•
1-3 / 7•
SIF
-130
-110
-100
-80
85
-140
75
70
-120

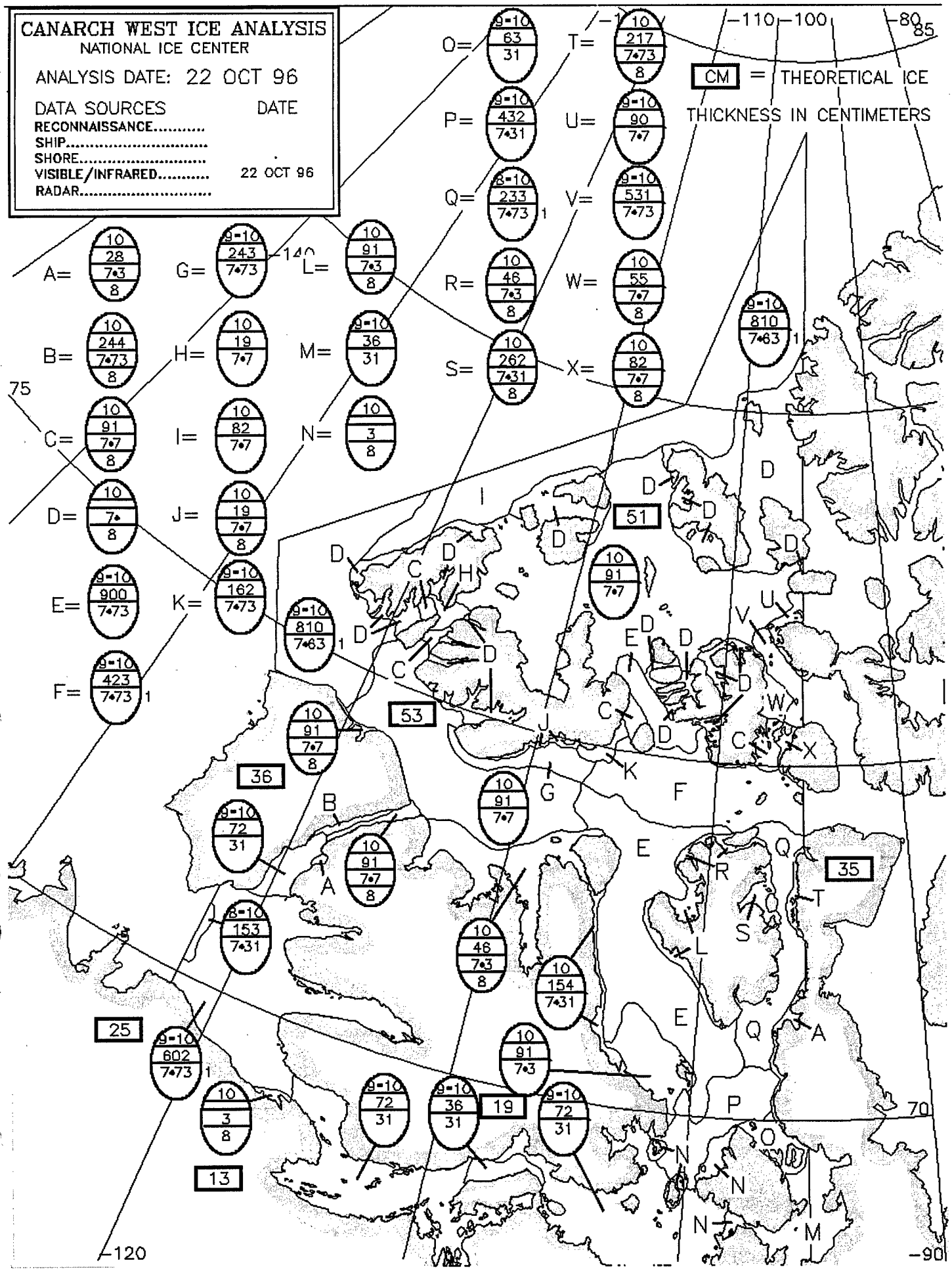

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17 SEP 96
RADAR.....
SIF=SEA ICE FREE
P= 8-10 / 27 / 74•
Q= 1-3 / 20 / 74•
A= 10 / 82 / 74• / 8
H= 4-6 / 50 / 7•1
M= 3-5 / 40 / 7•1
9-10 / 810 / 7•61
B= 9-10 / 810 / 74•1
I= 9-10 / 72 / 74•
N= 5-7 / 7•
C= 10 / 73 / 74• / 8
J= 7-9 / 71 / 74•
O= 9-10 / 7•
9-10 / 810 / 7•61
D= 1-3 / 7•
K= 9-10 / 720 / 74•1
E= 0-1 / 7•
L= 0-1 / 74•
9-10 / 81 / 74•
F= 3-5 / 7•
G= 2-4 / 7•
0-1 / 74•
9-10 / 18 / 74•
0-1 / 7•
1-3 / 7•
1-3 / 7•
1-3 / 11 / 74•
0-1 / 7•
SIF
SIF
SIF
-130
-110
-100
-80
85
75
70
-120

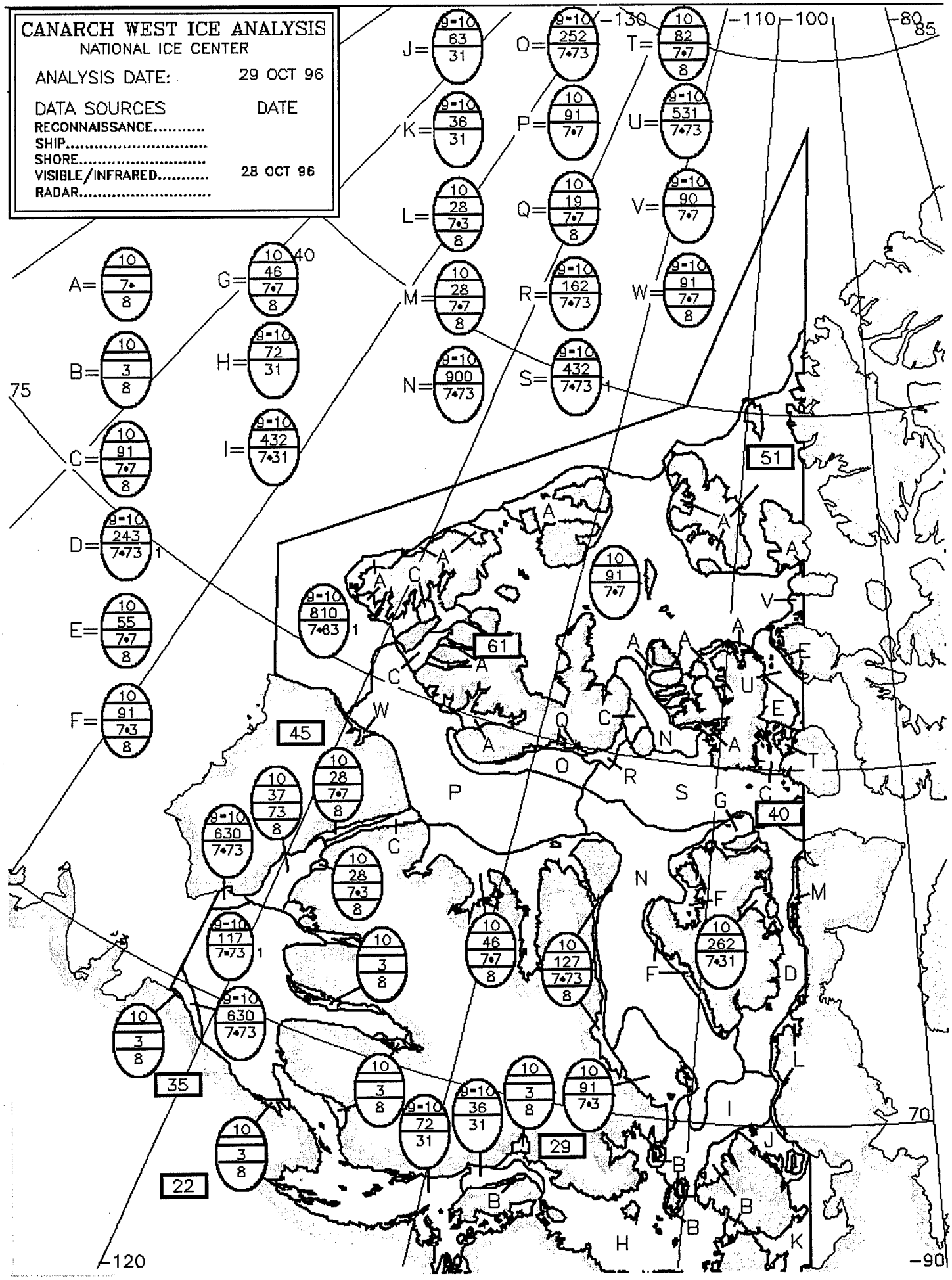

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 24 SEP 96
RADAR.....
SIF=SEA ICE FREE
A= 0-1 / 74•
B= 10 / 82 / 74• / 8
C= 9-10 / 810 / 74•1
D= 9-10 / 720 / 74•1
E= 3-5 / 40 / 7•1
F= 10 / 73 / 74• / 8
G= 1-3 / 7•
H= 2-4 / 7•
I= 9-10 / 72 / 74•
J= 9-10 / 7•
K= 7-9 / 7•
L= 5-7 / 7•
M= 3-5 / 7•
N= 0-1 / 7•
O= 7-9 / 71 / 74•
P= 9-10 / 18 / 74•
Q= 9-10 / 81 / 74•
R= 8-10 / 72 / 74•
9-10 / 810 / 7•61
9-10 / 81 / 74•
0-1 / 74•
0-1 / 74•
0-1 / 7•
1-3 / 11 / 74•
6-8 / 16 / 74•
1-3 / 11 / 74• / ~10
0-1 / 7•
9-10 / 72 / 74•
0-1 / 7•
0-1 / 7•
SIF
SIF
SIF
SIF
-130
-110
-100
-80
85
-140
75
70
-120

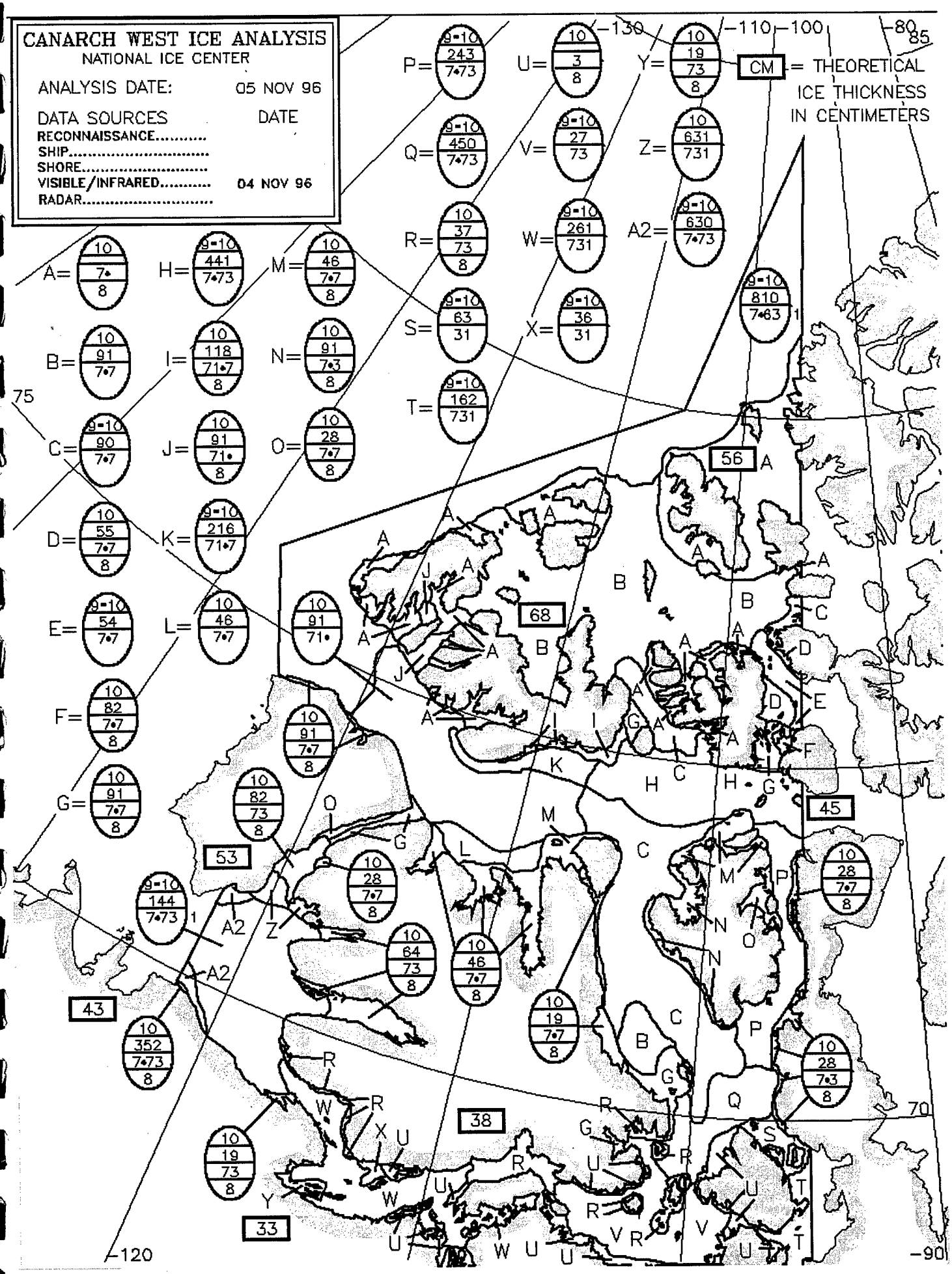

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 30 SEP 96
RADAR.....
CM = THICKNESS
SIF = SEA ICE FREE
A= 10 / 7• / 8
B= 0-1 / 7•1
C= 9-10 / 900 / 7•31
D= 9-10 / 063 / 7•31
E= 10 / 7•
F= 9-10 / 333 / 7•31
G= 7-9 / 80 / 7•1
H= 7-9 / 44 / 7•1
I= 8-10 / 90 / 7•1
J= 4-6 / 50 / 7•1
K= 3-5 / 7•
L= 7-9 / 7•
24
26
SIF
-130
-110
-100
-80
85
-140
75
70
-120
-90

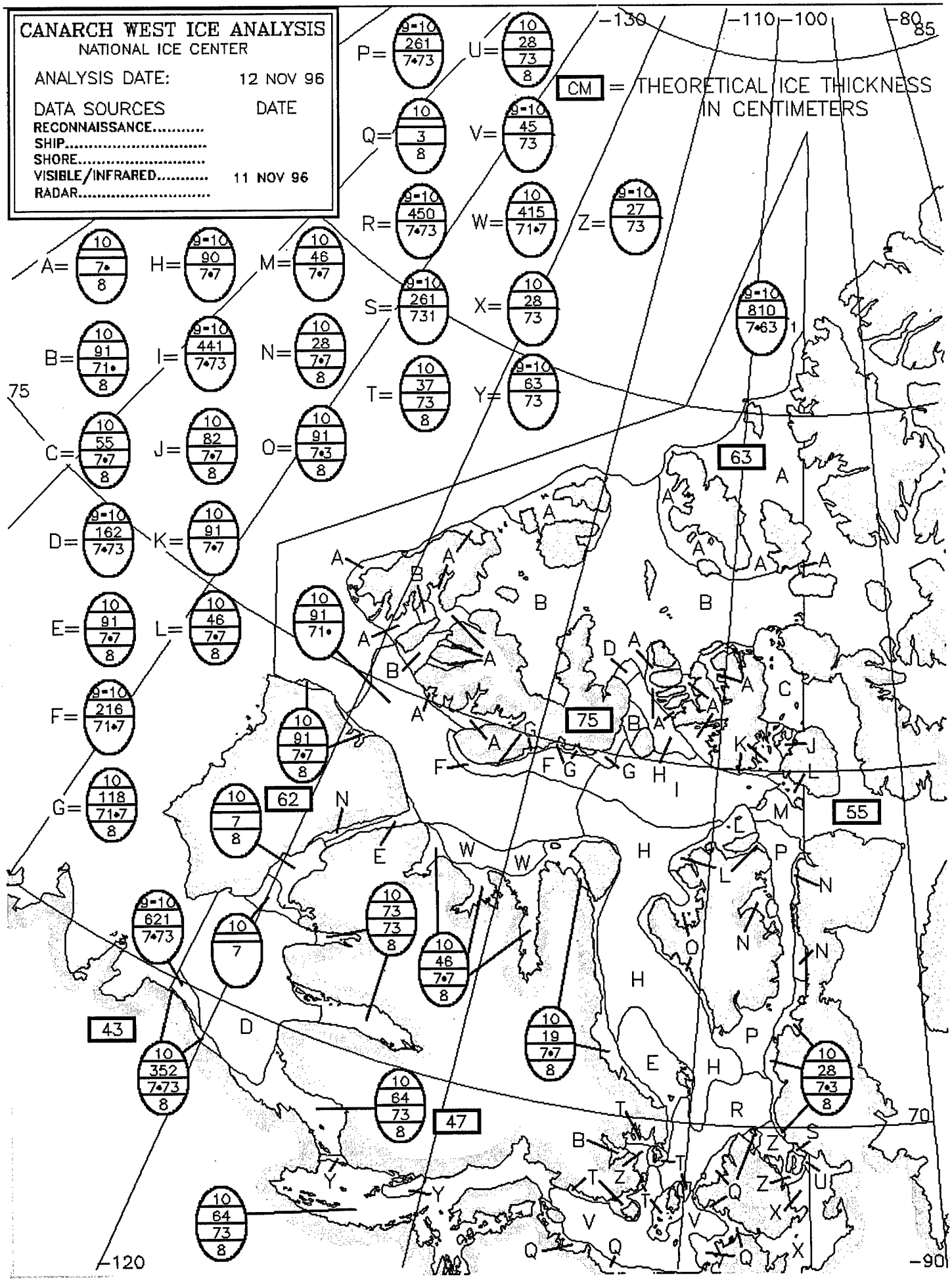

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 08 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 08 OCT 96
RADAR.....
CM = THICKNESS
SIF = SEA ICE FREE
A= 10 / 7• / 8
B= 10 / 91 / 7•3
C= 10 / 91 / 7•3 / 8
D= 9-10 / 900 / 7•31
E= 9-10 / 531 / 7•31
F= 10 / 532 / 7•31 / 8
G= 9-10 / 63 / 31
H= 10 / 811 / 7•31
I= 10 / 46 / 7•3 / 8
J= 5-7 / 231 / 7•31
K= 3-5 / 31 / 31
L= 8-10 / 144 / 7•31
M= 9-10 / 063 / 7•31
N= 9-10 / 342 / 7•31
O= 10 / 7•
P= 9-10 / 423 / 7•31
Q= 10 / 154 / 7•31 / 8
R= 10 / 82 / 7•7
S= 10 / 820 / 7•73 1
T= 10 / 442 / 7•31
9-10 / 810 / 7•63 1
9-10 / 810 / 7•63 1
6-8 / 232 / 7•31
7-9 / 44 / 31
9-10 / 90 / 7•1
5-7 / 123 / 7•31
10 / 91 / 7•3
10 / 433 / 7•31
9-10 / 900 / 7•31
10 / 154 / 7•31 / 8
5-7 / 420 / 7•31
-130
-110
-100
-80
85
75
70
-120
-90
35
41
25
23
17
11
7
SIF
SIF
SIF

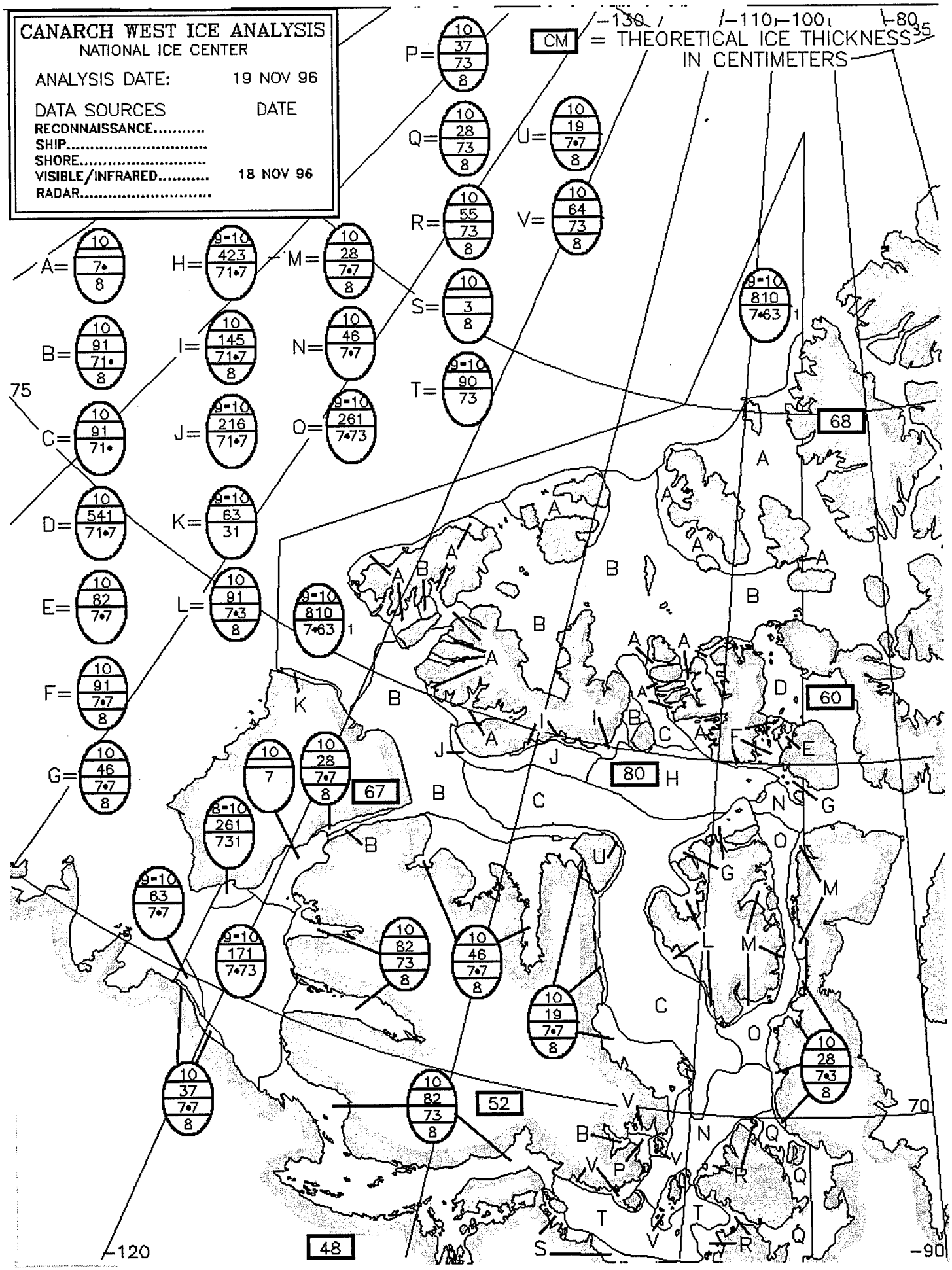

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 15 OCT 96
RADAR.....
CM = THICKNESS

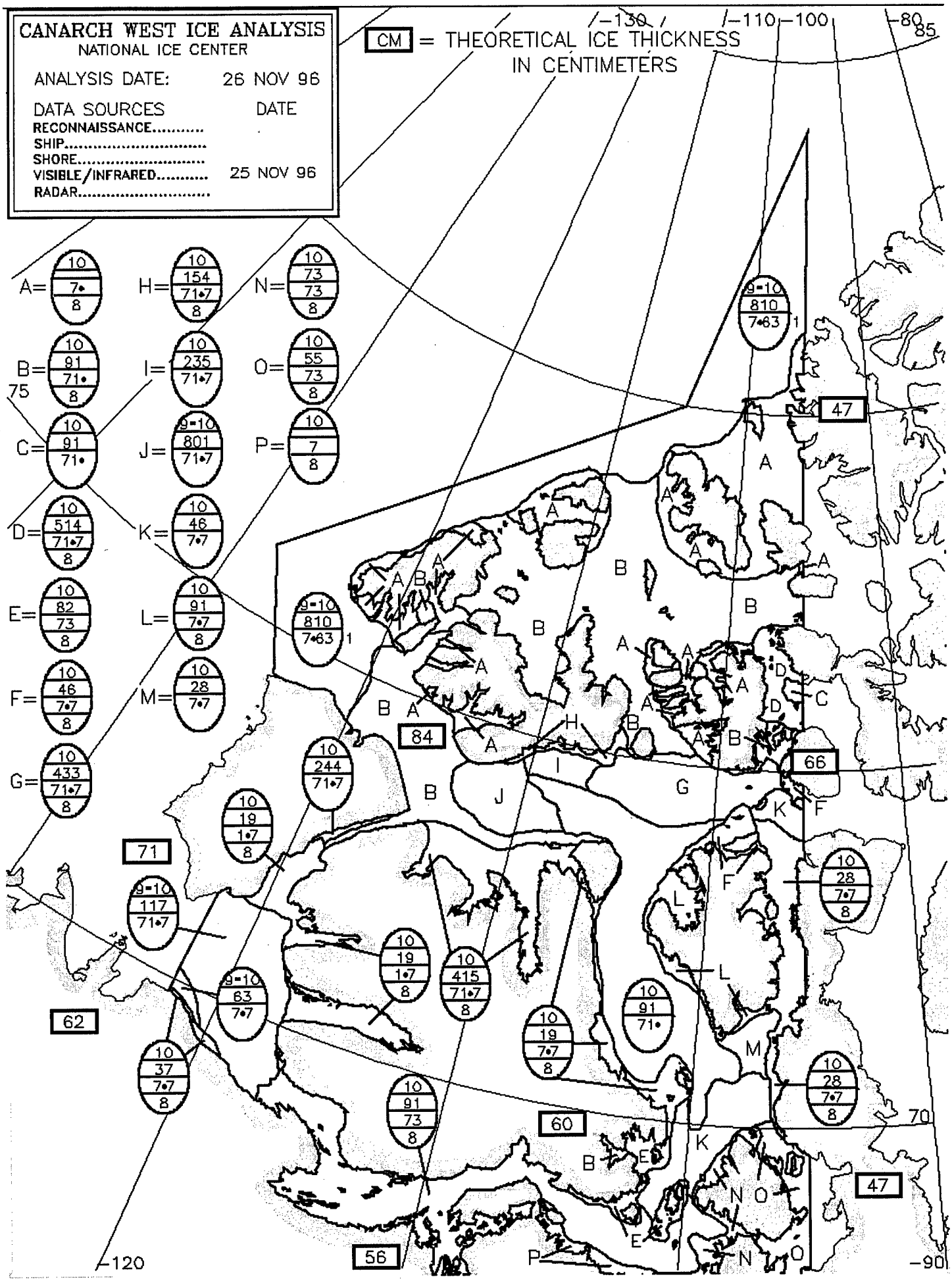

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 22 OCT 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 28 7•3 8
B= 10 244 7•73 8
C= 10 91 7•7 8
D= 10 7• 8
E= 9-10 900 7•73
F= 9-10 423 7•73 1
G= 9-10 243 7•73
H= 10 19 7•7
I= 10 82 7•7
J= 10 19 7•7 8
K= 9-10 162 7•73
L= 10 91 7•3 8
M= 9-10 36 31
N= 10 3 8
O= 9-10 63 31
P= 9-10 432 7•31
Q= 8-10 233 7•73 1
R= 10 46 7•3 8
S= 10 262 7•31 8
T= 10 217 7•73 8
U= 9-10 90 7•7
V= 9-10 531 7•73
W= 10 55 7•7 8
X= 10 82 7•7 8
9-10 810 7•63 1
10 91 7•7
9-10 810 7•63 1
10 91 7•7 8
9-10 72 31
10 91 7•7 8
8-10 153 7•31
10 46 7•3 8
10 154 7•31
9-10 602 7•73 1
10 3 8
9-10 72 31
9-10 36 31
10 91 7•3
9-10 72 31
51
53
36
35
25
19
13
75
70
-140
-120
-110
-100
-90
-80
85

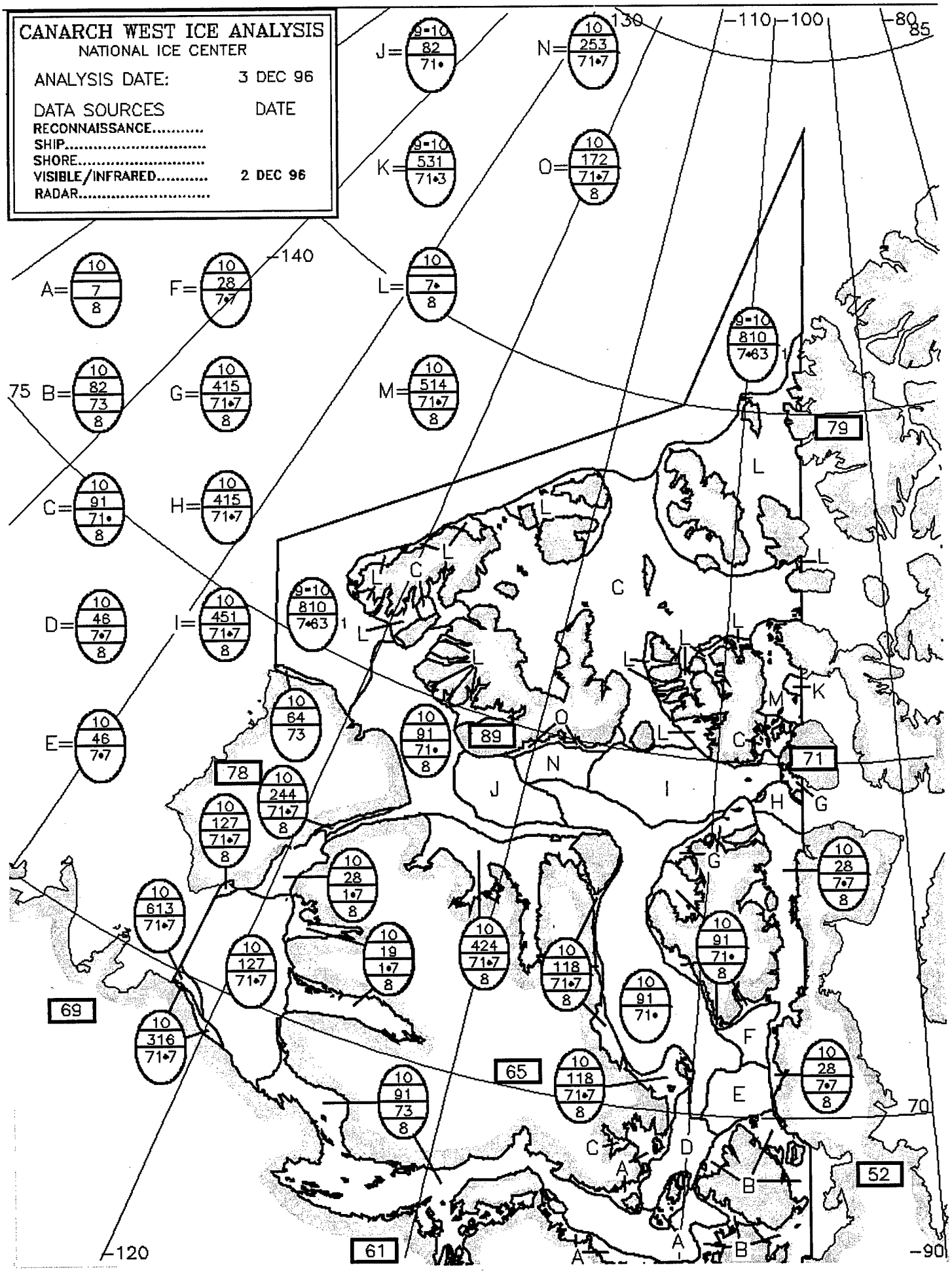

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28 OCT 96
RADAR.....
A= 10 / 7• / 8
B= 10 / 3 / 8
C= 10 / 91 / 7•7 / 8
D= 9-10 / 243 / 7•73 1
E= 10 / 55 / 7•7 / 8
F= 10 / 91 / 7•3 / 8
G= 10 / 46 / 7•7 / 8
H= 9-10 / 72 / 31
I= 9-10 / 432 / 7•31
J= 9-10 / 63 / 31
K= 9-10 / 36 / 31
L= 10 / 28 / 7•3 / 8
M= 10 / 28 / 7•7 / 8
N= 9-10 / 900 / 7•73
O= 9-10 / 252 / 7•73
P= 10 / 91 / 7•7
Q= 10 / 19 / 7•7 / 8
R= 9-10 / 162 / 7•73
S= 9-10 / 432 / 7•73 1
T= 10 / 82 / 7•7 / 8
U= 9-10 / 531 / 7•73
V= 9-10 / 90 / 7•7
W= 9-10 / 91 / 7•7 / 8
9-10 / 810 / 7•63 1
10 / 91 / 7•7
10 / 28 / 7•7 / 8
10 / 37 / 73 / 8
9-10 / 630 / 7•73
10 / 28 / 7•3 / 8
9-10 / 117 / 7•73 1
10 / 3 / 8
10 / 46 / 7•7 / 8
10 / 127 / 7•73 / 8
10 / 262 / 7•31
10 / 3 / 8
9-10 / 630 / 7•73
10 / 3 / 8
9-10 / 72 / 31
9-10 / 36 / 31
10 / 3 / 8
10 / 91 / 7•3
10 / 3 / 8
-130
-110
-100
-80
85
40
75
70
-120
-90
51
61
45
40
35
29
22

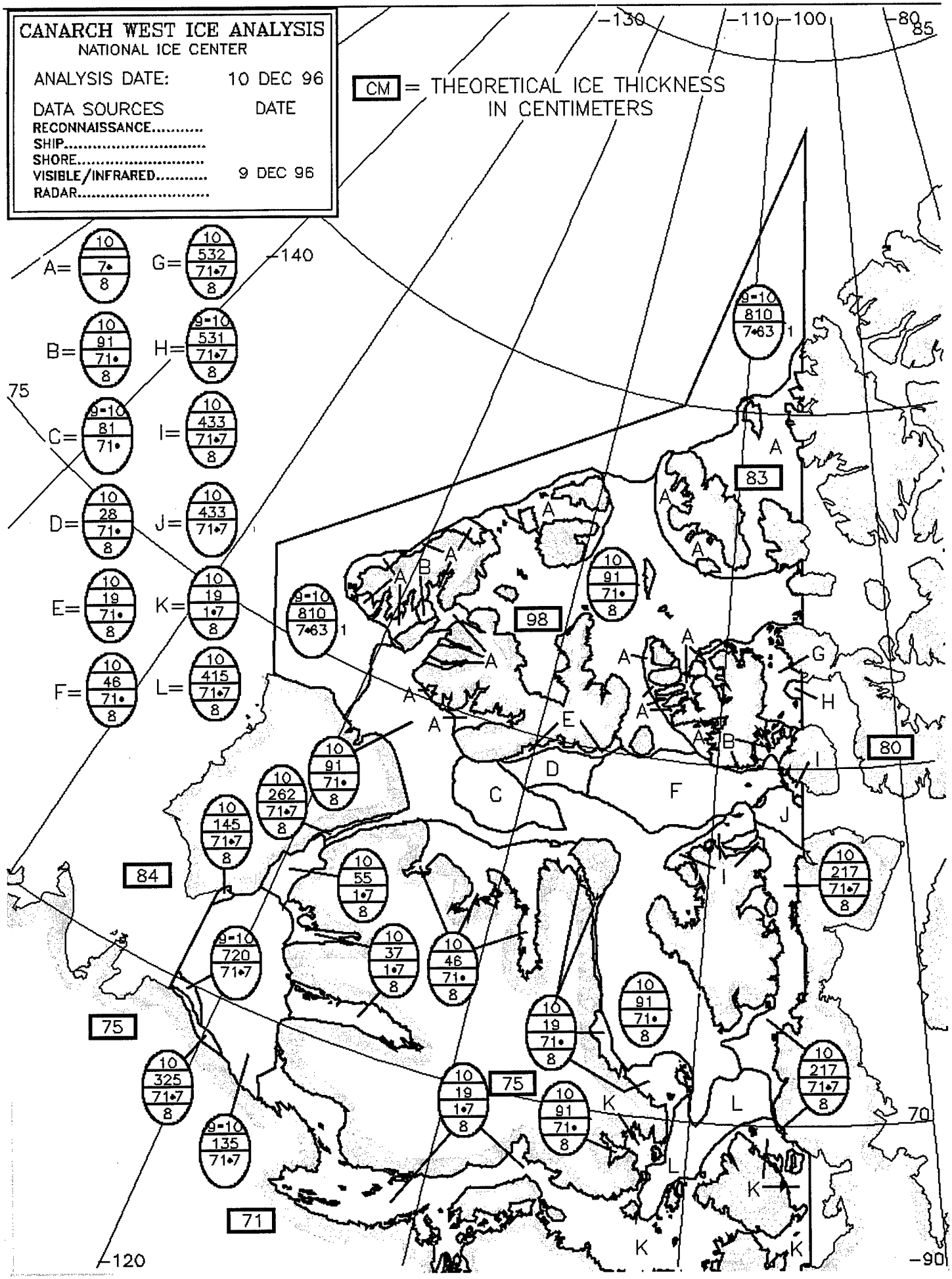

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 04 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 / 7• / 8
B= 10 / 91 / 7•7
C= 9-10 / 90 / 7•7
D= 10 / 55 / 7•7 / 8
E= 9-10 / 54 / 7•7
F= 10 / 82 / 7•7 / 8
G= 10 / 91 / 7•7 / 8
H= 9-10 / 441 / 7•73
I= 10 / 118 / 71•7 / 8
J= 10 / 91 / 71• / 8
K= 9-10 / 216 / 71•7
L= 10 / 46 / 7•7
M= 10 / 46 / 7•7 / 8
N= 10 / 91 / 7•3 / 8
O= 10 / 28 / 7•7 / 8
P= 9-10 / 243 / 7•73
Q= 9-10 / 450 / 7•73
R= 10 / 37 / 73 / 8
S= 9-10 / 63 / 31
T= 9-10 / 162 / 731
U= 10 / 3 / 8
V= 9-10 / 27 / 73
W= 9-10 / 261 / 731
X= 9-10 / 36 / 31
Y= 10 / 19 / 73 / 8
Z= 10 / 631 / 731
A2= 9-10 / 630 / 7•73
9-10 / 810 / 7•63 1
10 / 91 / 71•
10 / 91 / 7•7 / 8
10 / 82 / 73 / 8
9-10 / 144 / 7•73 1
10 / 28 / 7•7 / 8
10 / 64 / 73 / 8
10 / 46 / 7•7 / 8
10 / 19 / 7•7 / 8
10 / 28 / 7•3 / 8
10 / 352 / 7•73 / 8
10 / 19 / 73 / 8
56
68
45
53
43
38
33
75
70
-130
-110
-100
-80
85
-120
-90

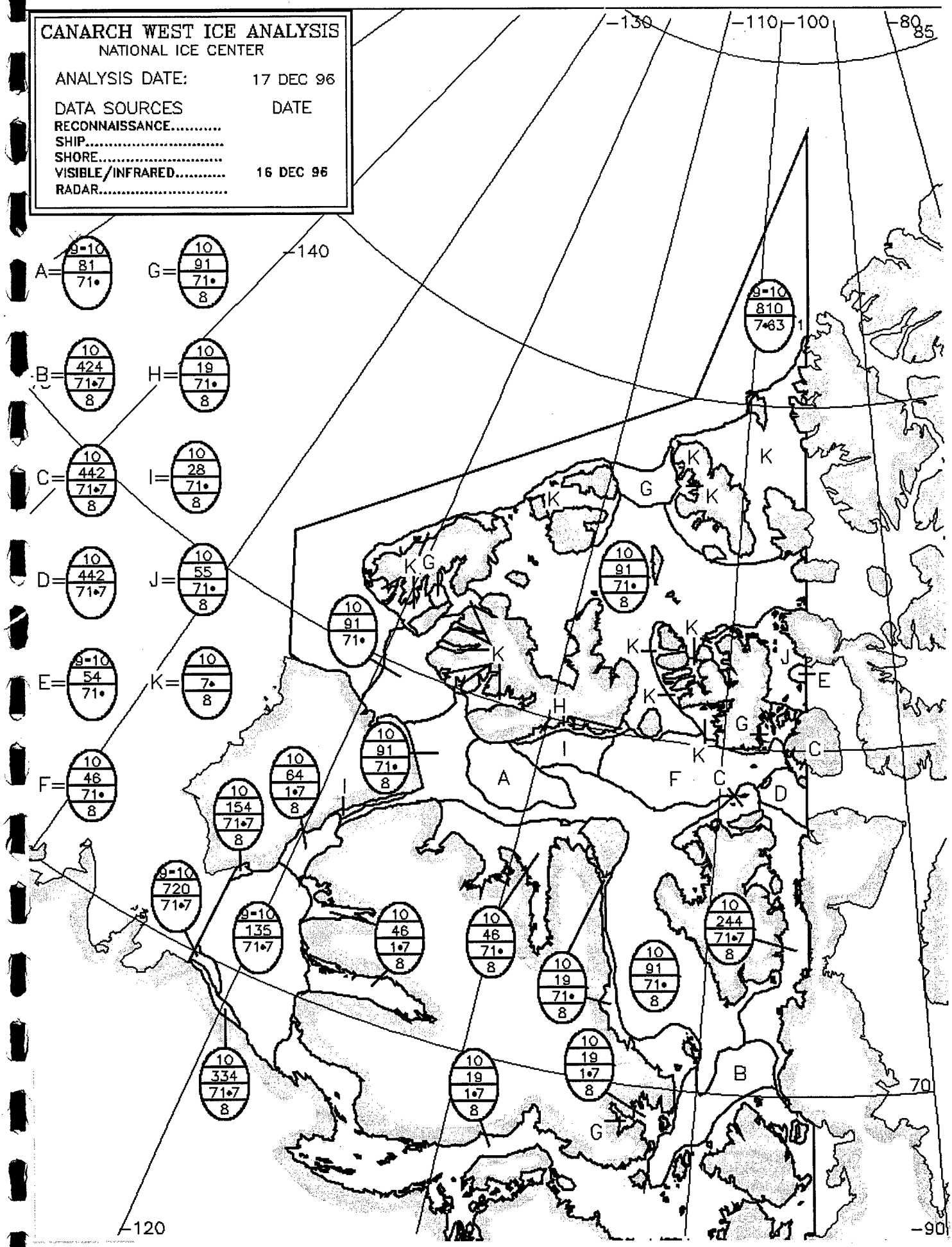

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 11 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
-130
-110
-100
-80
85
75
70
-120
-90
63
75
62
55
43
47

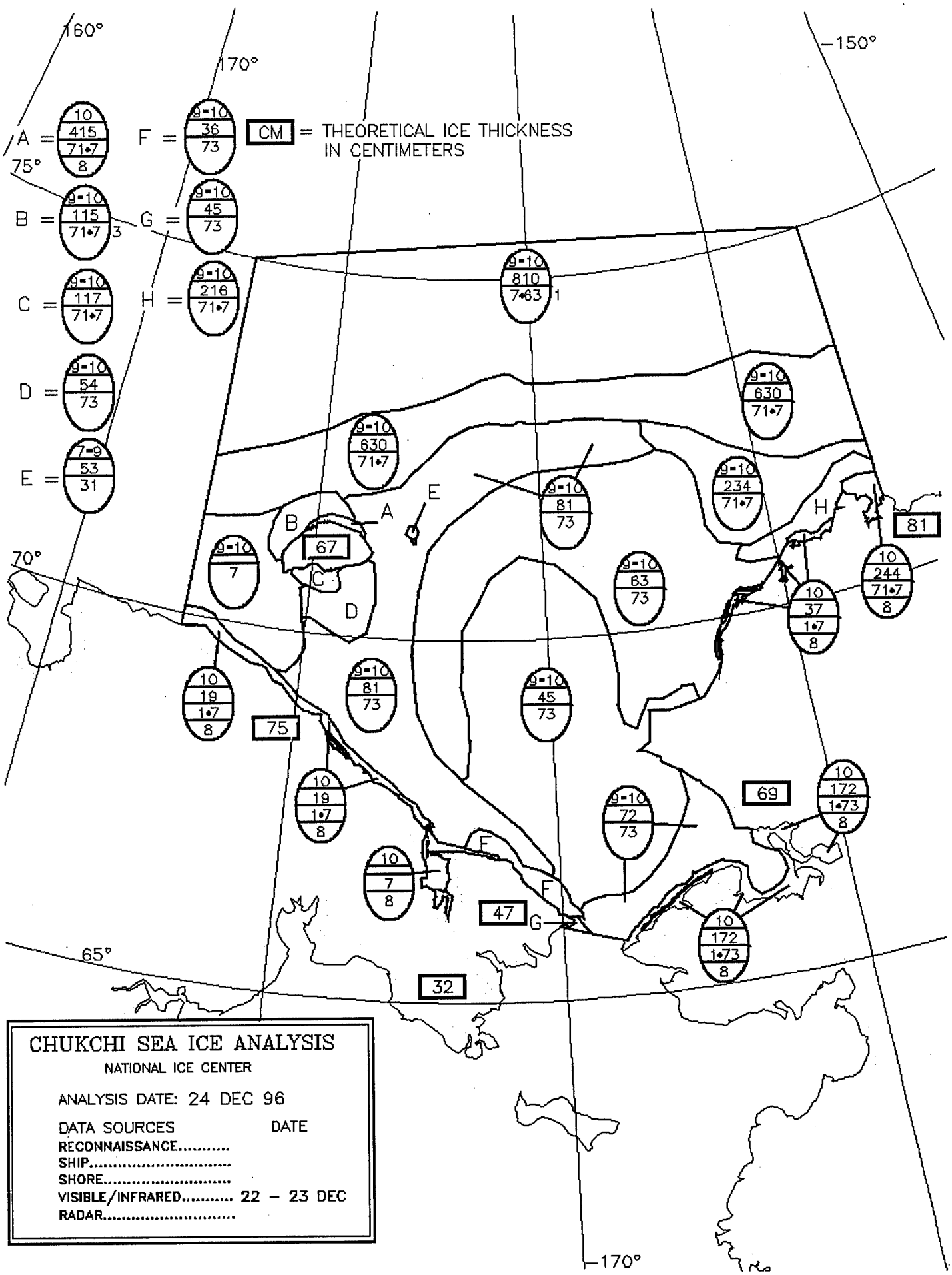

CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 18 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
-130
-110
-100
-80
35
75
70
68
60
80
67
52
48
-120
-90


CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 25 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 / 7• / 8
B= 10 / 91 / 71• / 8
C= 10 / 91 / 71•
D= 10 / 514 / 71•7 / 8
E= 10 / 82 / 73 / 8
F= 10 / 46 / 7•7 / 8
G= 10 / 433 / 71•7 / 8
H= 10 / 154 / 71•7 / 8
I= 10 / 235 / 71•7
J= 9-10 / 801 / 71•7
K= 10 / 46 / 7•7
L= 10 / 91 / 7•7 / 8
M= 10 / 28 / 7•7
N= 10 / 73 / 73 / 8
O= 10 / 55 / 73 / 8
P= 10 / 7 / 8
9-10 / 810 / 7•63 1
10 / 244 / 71•7
10 / 19 / 1•7 / 8
9-10 / 117 / 71•7
9-10 / 63 / 7•7
10 / 37 / 7•7 / 8
10 / 19 / 1•7 / 8
10 / 415 / 71•7 / 8
10 / 91 / 73 / 8
10 / 19 / 7•7 / 8
10 / 91 / 71•
10 / 28 / 7•7 / 8
-130
-110
-100
-80
85
75
70
-120
-90
47
84
66
71
62
60
56


CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 2 DEC 96
RADAR.....
A= 10 / 7 / 8
B= 10 / 82 / 73 / 8
C= 10 / 91 / 71• / 8
D= 10 / 46 / 7•7 / 8
E= 10 / 46 / 7•7
F= 10 / 28 / 7•7
G= 10 / 415 / 71•7 / 8
H= 10 / 415 / 71•7
I= 10 / 451 / 71•7 / 8
J= 9-10 / 82 / 71•
K= 9-10 / 531 / 71•3
L= 10 / 7• / 8
M= 10 / 514 / 71•7 / 8
N= 10 / 253 / 71•7
O= 10 / 172 / 71•7 / 8
9-10 / 810 / 7•63 1
10 / 64 / 73
10 / 91 / 71• / 8
10 / 244 / 71•7 / 8
10 / 127 / 71•7 / 8
10 / 613 / 71•7
10 / 28 / 1•7 / 8
10 / 19 / 1•7 / 8
10 / 424 / 71•7 / 8
10 / 118 / 71•7 / 8
10 / 91 / 71•
10 / 316 / 71•7
10 / 91 / 73 / 8
10 / 28 / 7•7 / 8
130
-110
-100
-80
85
-140
75
79
89
78
71
69
65
70
52
61
-120
-90


CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 9 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 10 / 7• / 8
B= 10 / 91 / 71• / 8
C= 9-10 / 81 / 71•
D= 10 / 28 / 71• / 8
E= 10 / 19 / 71• / 8
F= 10 / 46 / 71• / 8
G= 10 / 532 / 71•7 / 8
H= 9-10 / 531 / 71•7 / 8
I= 10 / 433 / 71•7 / 8
J= 10 / 433 / 71•7
K= 10 / 19 / 1•7 / 8
L= 10 / 415 / 71•7 / 8
-130
-110
-100
-80
85
-140
75
83
98
80
84
75
75
71
70
-120
-90


CANARCH WEST ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 16 DEC 96
RADAR.....
A= 9-10 81 71•
G= 10 91 71• 8
B= 10 424 71•7 8
H= 10 19 71• 8
C= 10 442 71•7 8
I= 10 28 71• 8
D= 10 442 71•7
J= 10 55 71• 8
E= 9-10 54 71•
K= 10 7• 8
F= 10 46 71• 8
-140
-130
-120
-110
-100
-90
-80
85
70
9-10 810 7•63
10 91 71• 8
10 91 71•
10 91 71• 8
10 64 1•7 8
10 154 71•7 8
9-10 720 71•7
9-10 135 71•7
10 46 1•7 8
10 46 71• 8
10 19 71• 8
10 91 71• 8
10 244 71•7 8
10 334 71•7 8
10 19 1•7 8
10 19 1•7 8

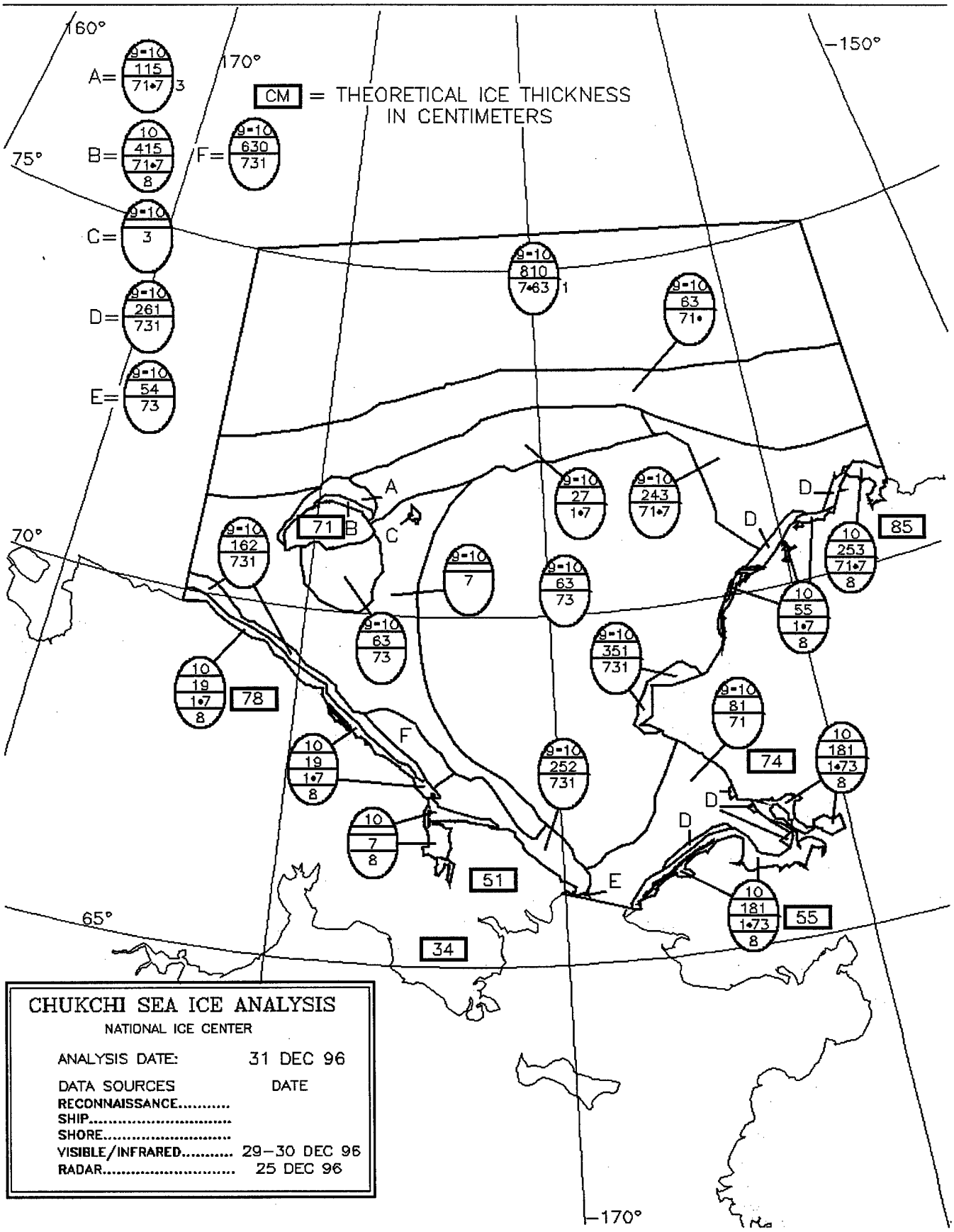


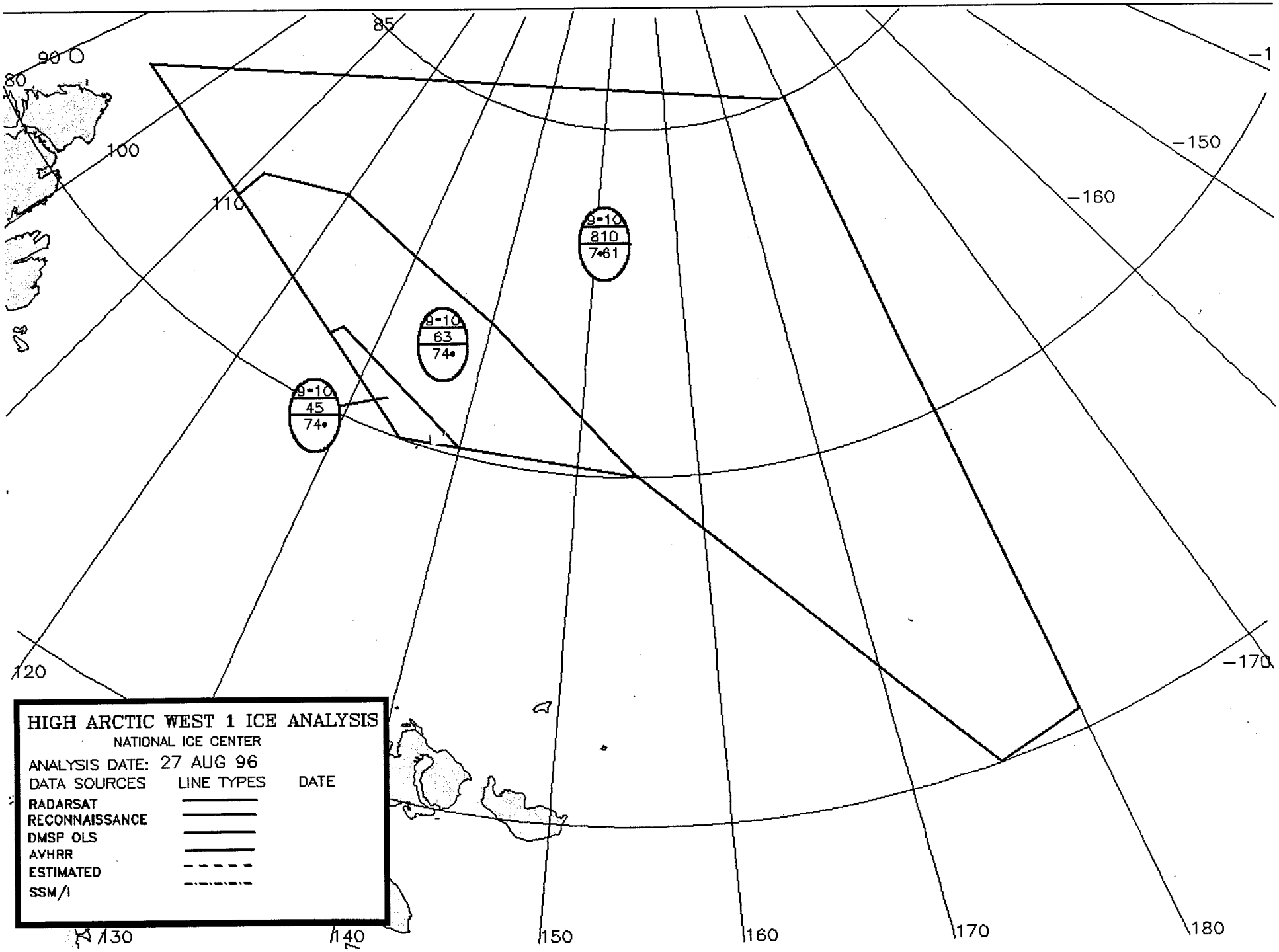
CHUKCHI SEA ICE ANALYSIS

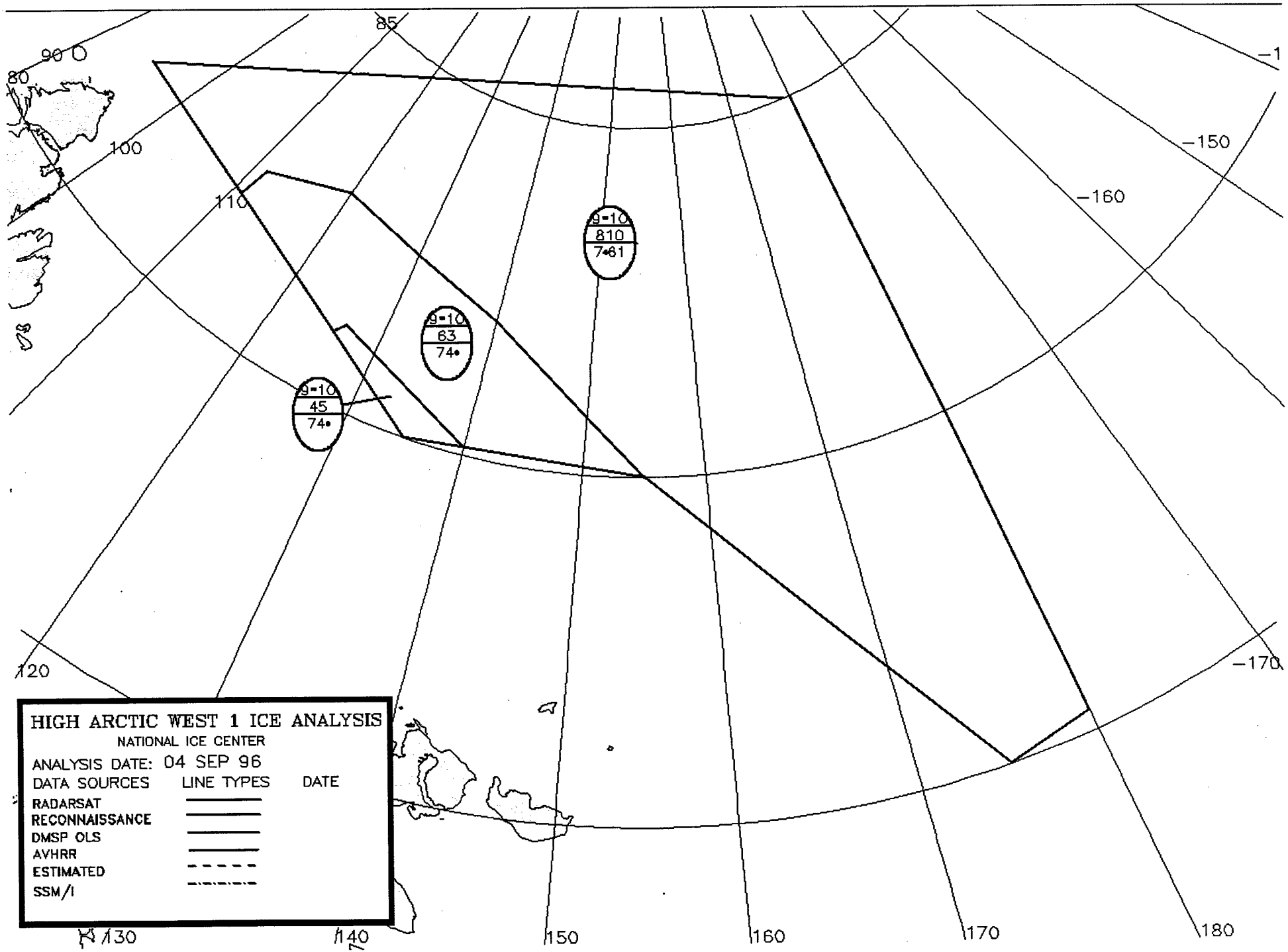
NATIONAL ICE CENTER

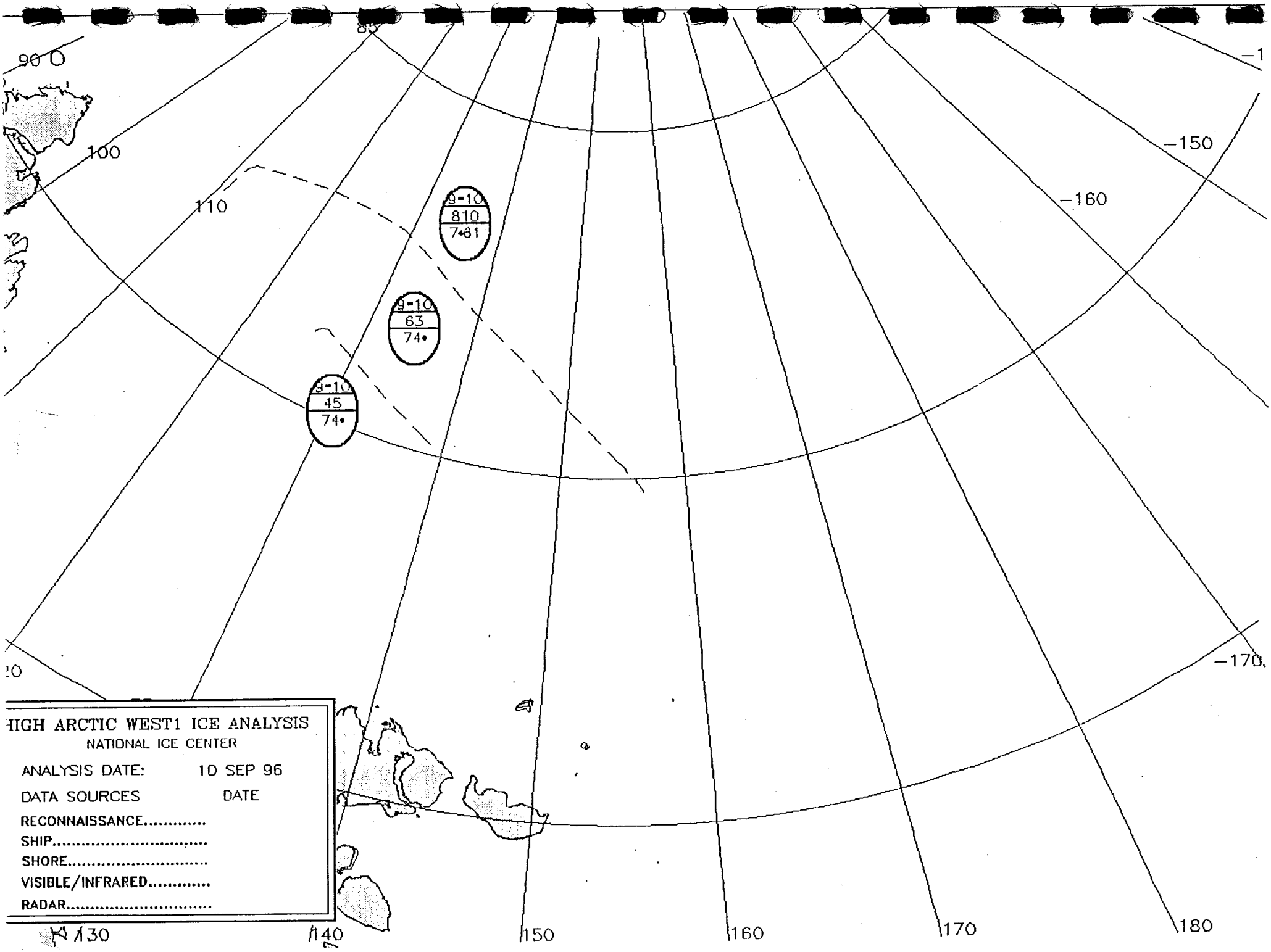
ANALYSIS DATE: 24 DEC 96

DATA SOURCES	DATE
RECONNAISSANCE.....	
SHIP.....	
SHORE.....	
VISIBLE/INFRARED.....	22 – 23 DEC
RADAR.....	


160°
170°
-150°
75°
70°
65°
-170°
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 / 115 / 71•7 3
B= 10 / 415 / 71•7 / 8
C= 9-10 / 3
D= 9-10 / 261 / 731
E= 9-10 / 54 / 73
F= 9-10 / 630 / 731
9-10 / 810 / 7•63 1
9-10 / 63 / 71•
9-10 / 27 / 1•7
9-10 / 243 / 71•7
9-10 / 162 / 731
71
9-10 / 7
9-10 / 63 / 73
10 / 253 / 71•7 / 8
85
10 / 55 / 1•7 / 8
9-10 / 63 / 73
9-10 / 351 / 731
10 / 19 / 1•7 / 8
78
9-10 / 81 / 71
74
10 / 181 / 1•73 / 8
10 / 19 / 1•7 / 8
9-10 / 252 / 731
10 / 7 / 8
51
10 / 181 / 1•73 / 8
55
34
A
B
C
D
E
F
CHUKCHI SEA ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 29-30 DEC 96
RADAR..... 25 DEC 96


HIGH ARCTIC WEST 1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 27 AUG 96
DATA SOURCES
LINE TYPES
DATE
RADARSAT
RECONNAISSANCE
DMSP OLS
AVHRR
ESTIMATED
SSM/I
9-10
810
7•61
9-10
63
74•
9-10
45
74•
90
85
80
100
110
120
130
140
150
160
170
180
-150
-160
-170


HIGH ARCTIC WEST 1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 04 SEP 96
DATA SOURCES
LINE TYPES
DATE
RADARSAT
RECONNAISSANCE
DMSP OLS
AVHRR
ESTIMATED
SSM/I
9-10
810
7-61
9-10
63
74-
9-10
45
74-
90
80
85
100
110
120
130
140
150
160
170
180
-150
-160
-170

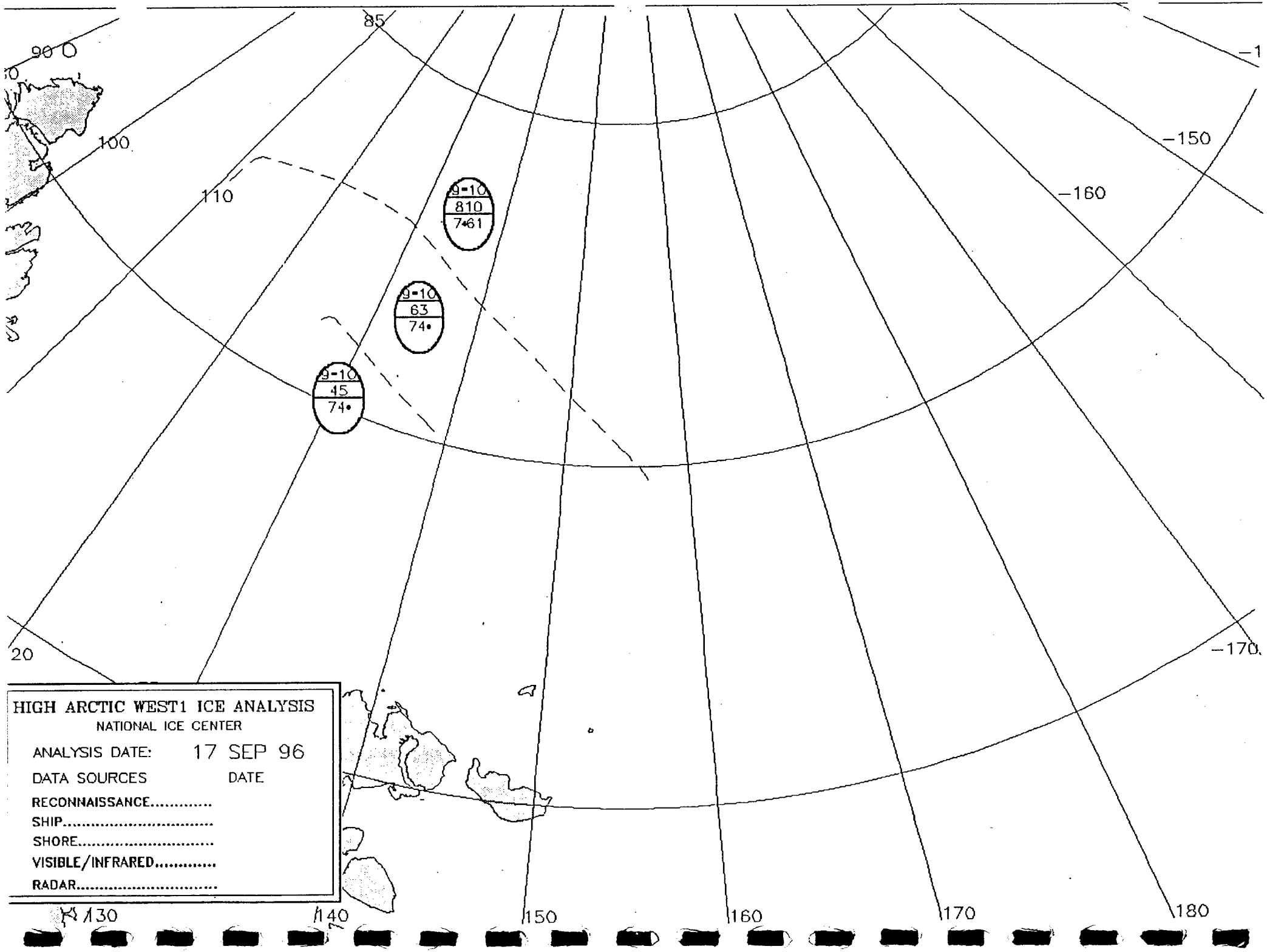


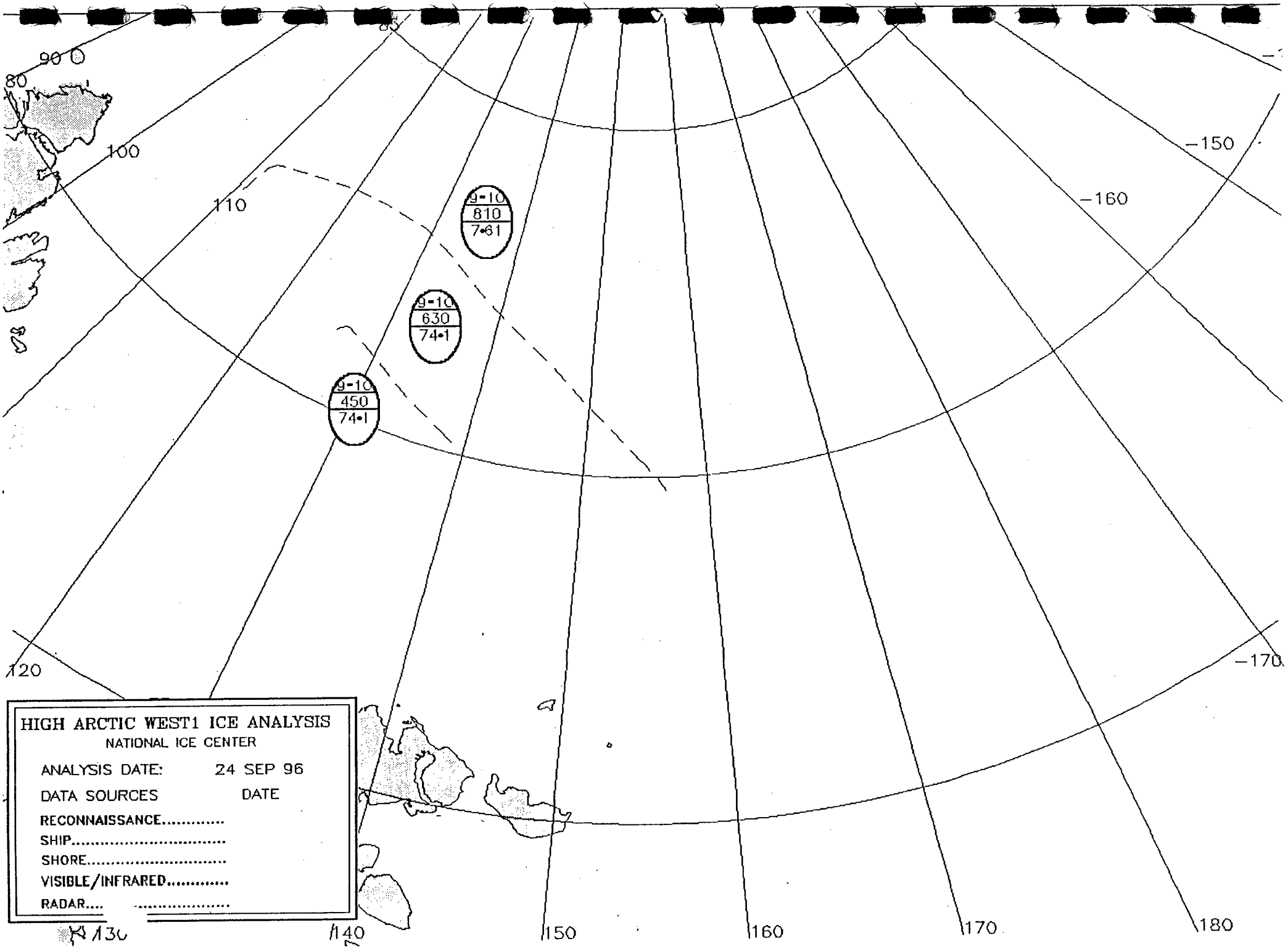
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER

ANALYSIS DATE: 10 SEP 96

DATA SOURCES DATE

RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


85
90 0
100
110
-150
-160
-170
20
130
140
150
160
170
180
9-10
810
7•61
9-10
63
74•
9-10
45
74•
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 SEP 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.... .....
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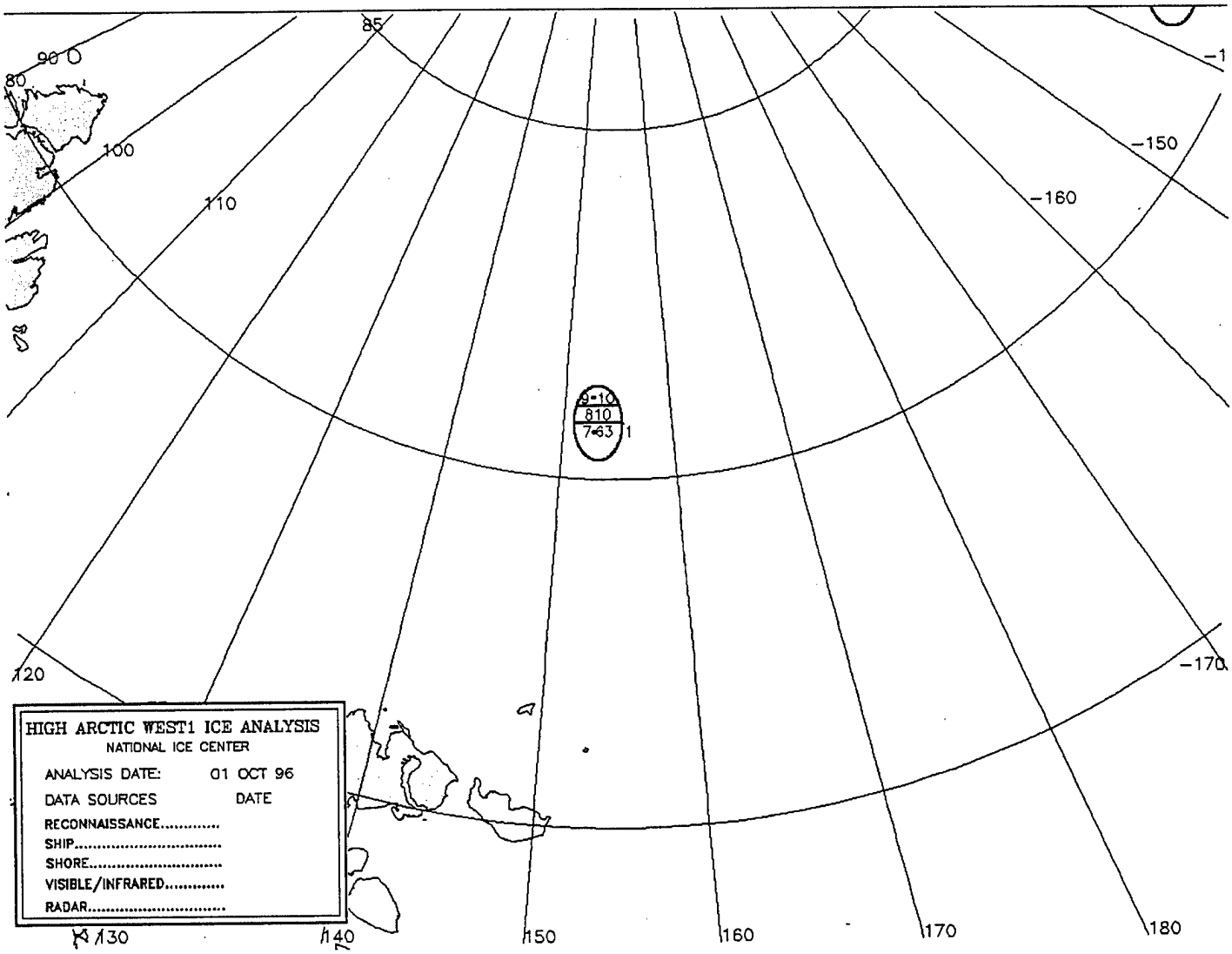
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
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SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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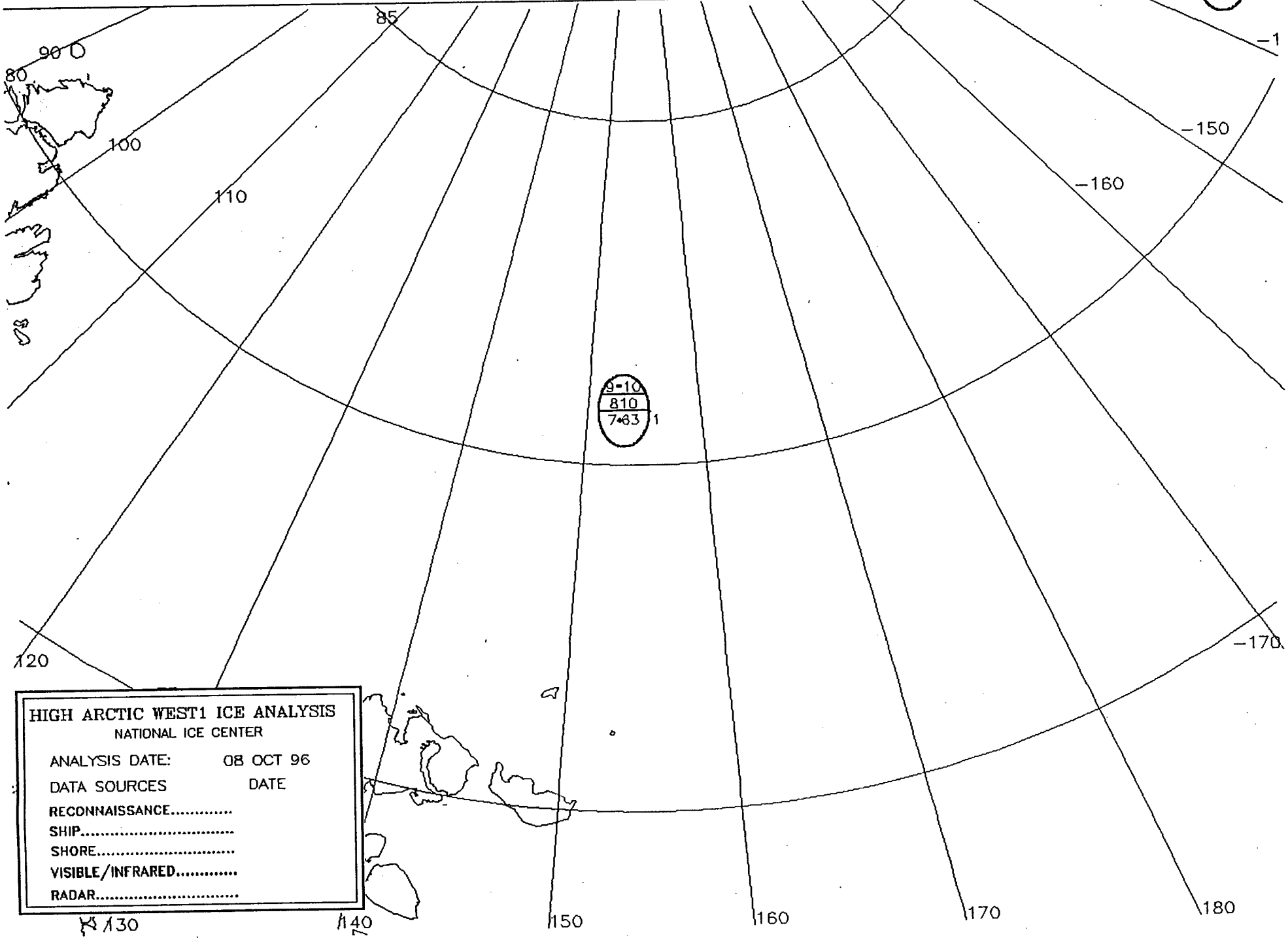


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER

ANALYSIS DATE: 08 OCT 96

DATA SOURCES DATE

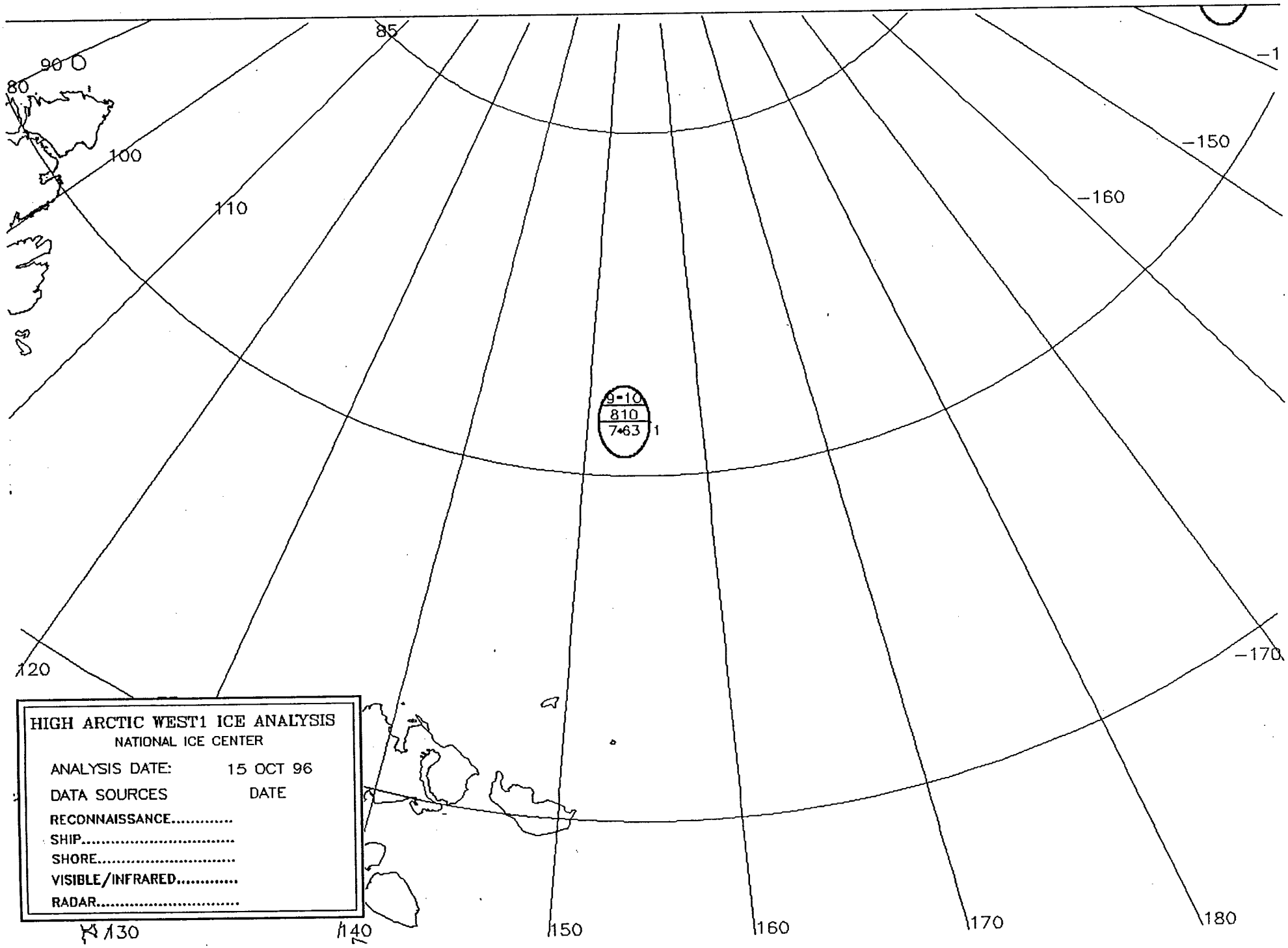
RECONNAISSANCE.....

SHIP.....

SHORE.....

VISIBLE/INFRARED.....

RADAR.....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NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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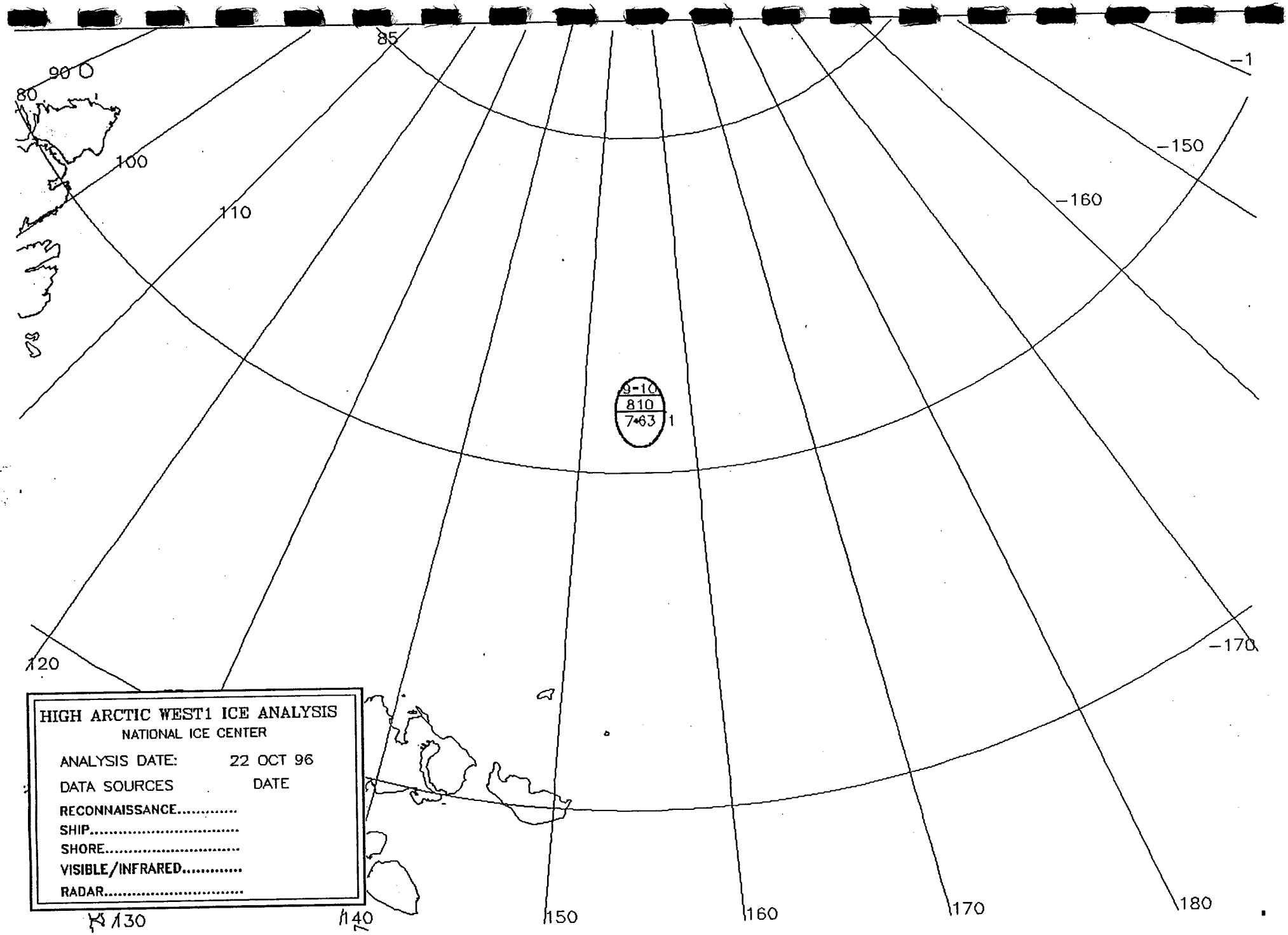


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER

ANALYSIS DATE: 22 OCT 96

DATA SOURCES DATE

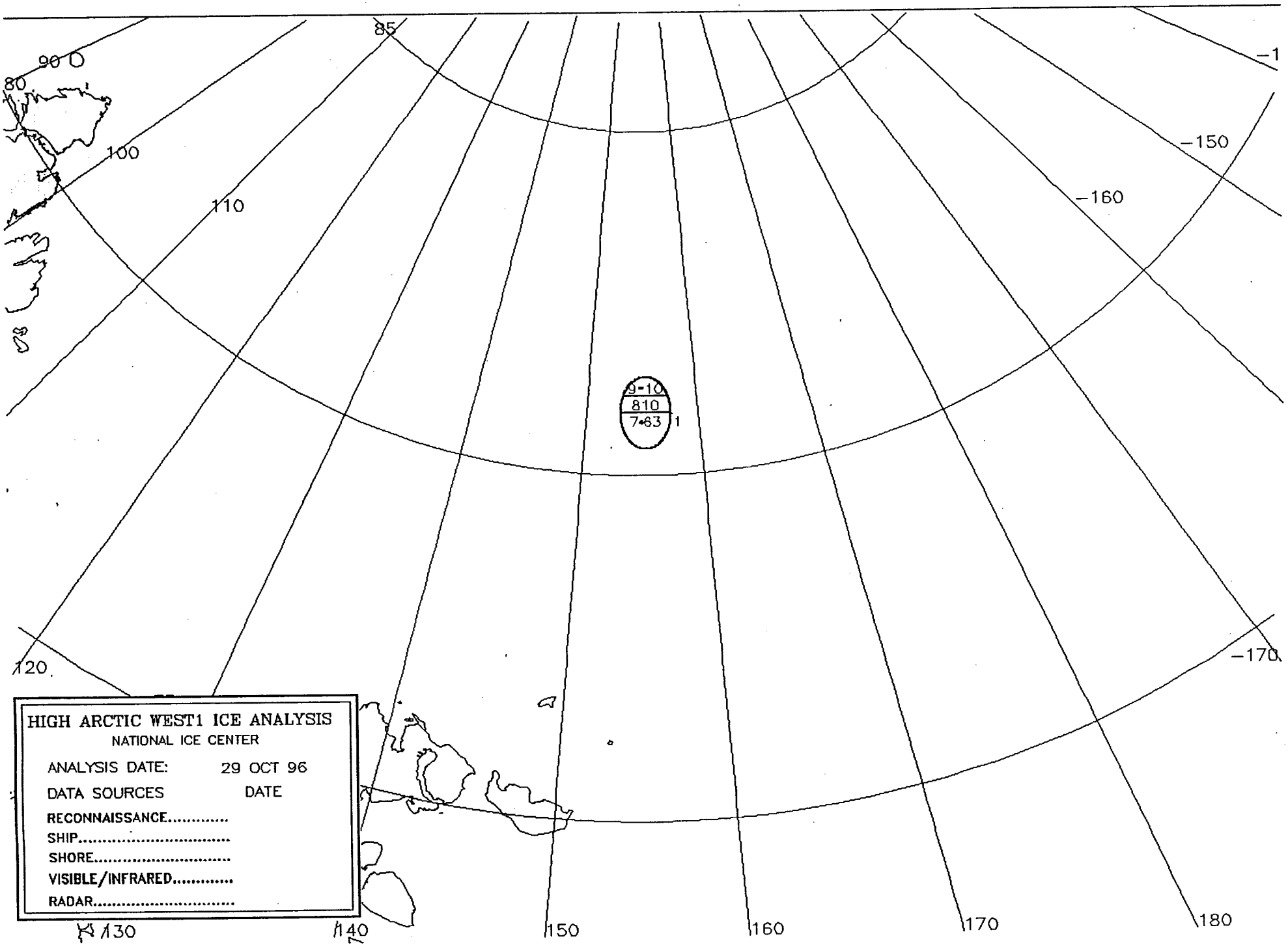
RECONNAISSANCE.....

SHIP.....

SHORE.....

VISIBLE/INFRARED.....

RADAR.....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HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
DATA SOURCES DATE
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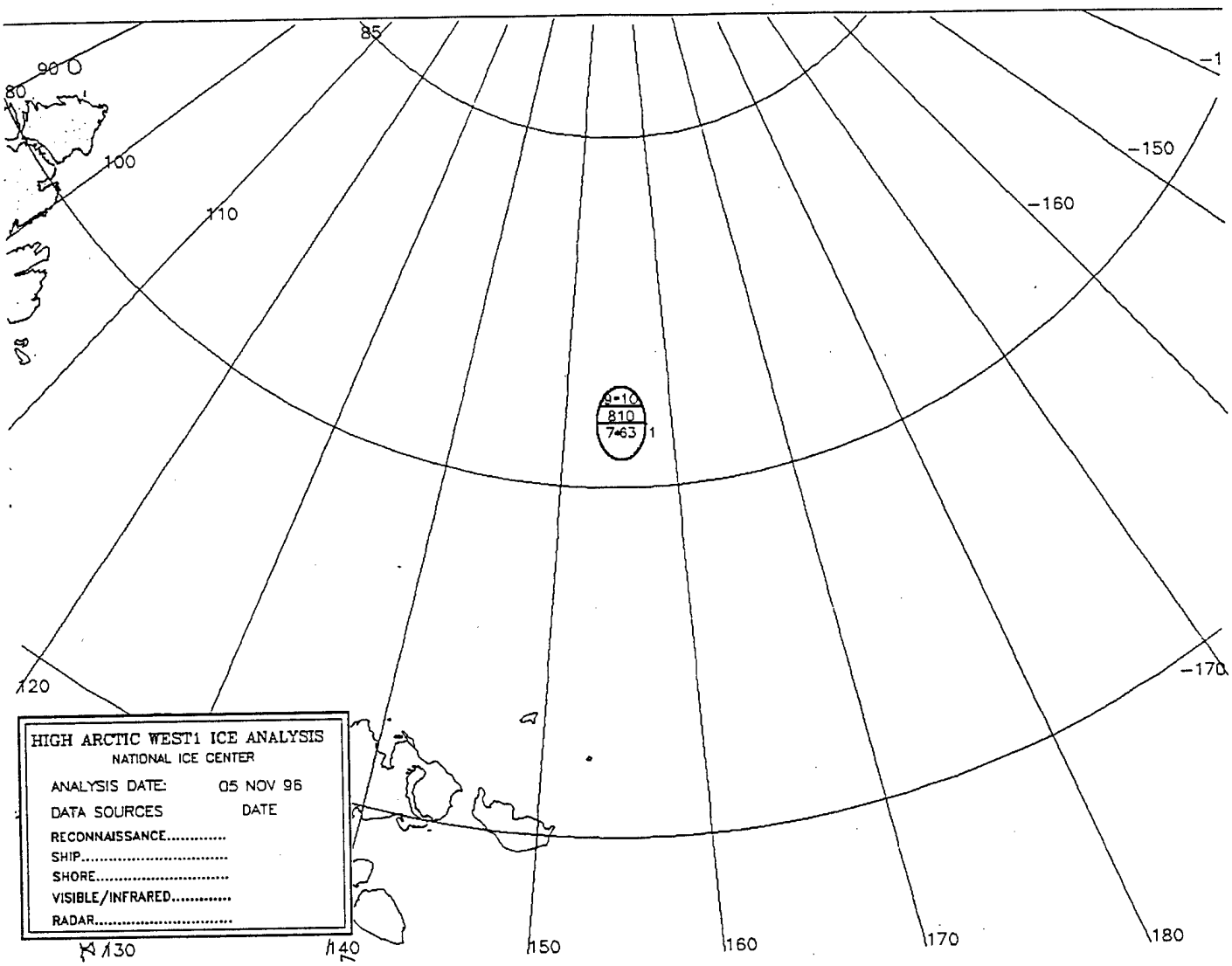
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
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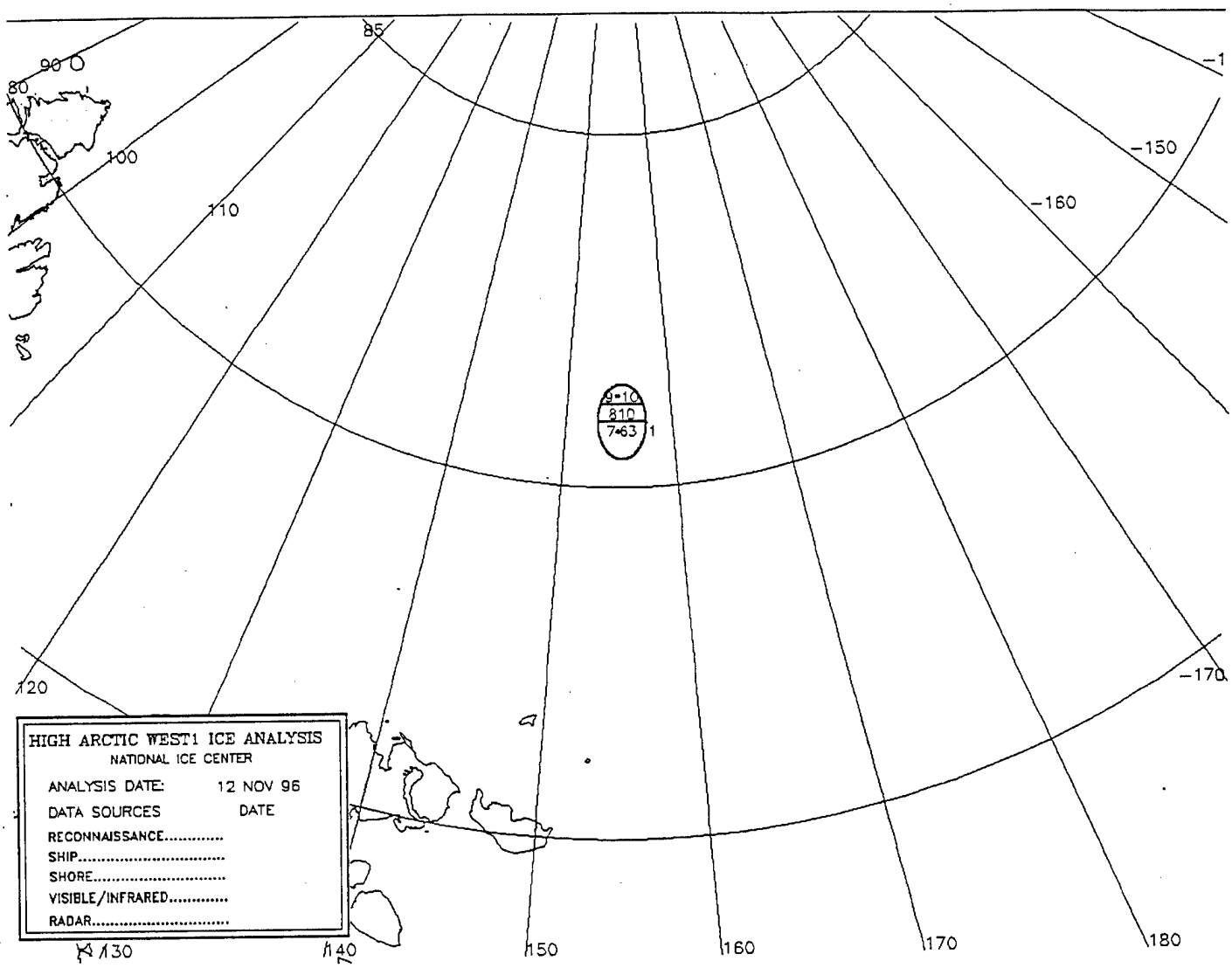
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
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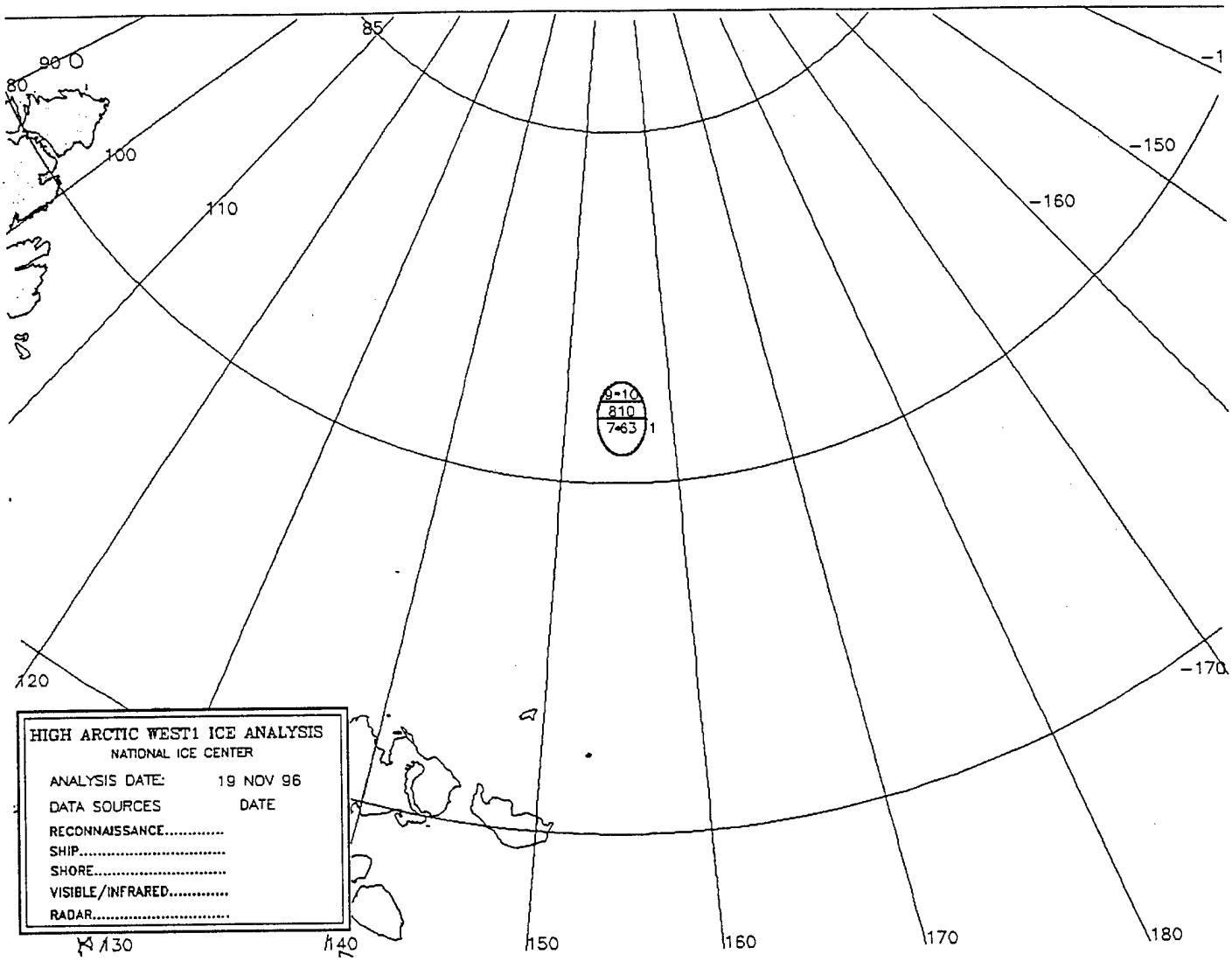
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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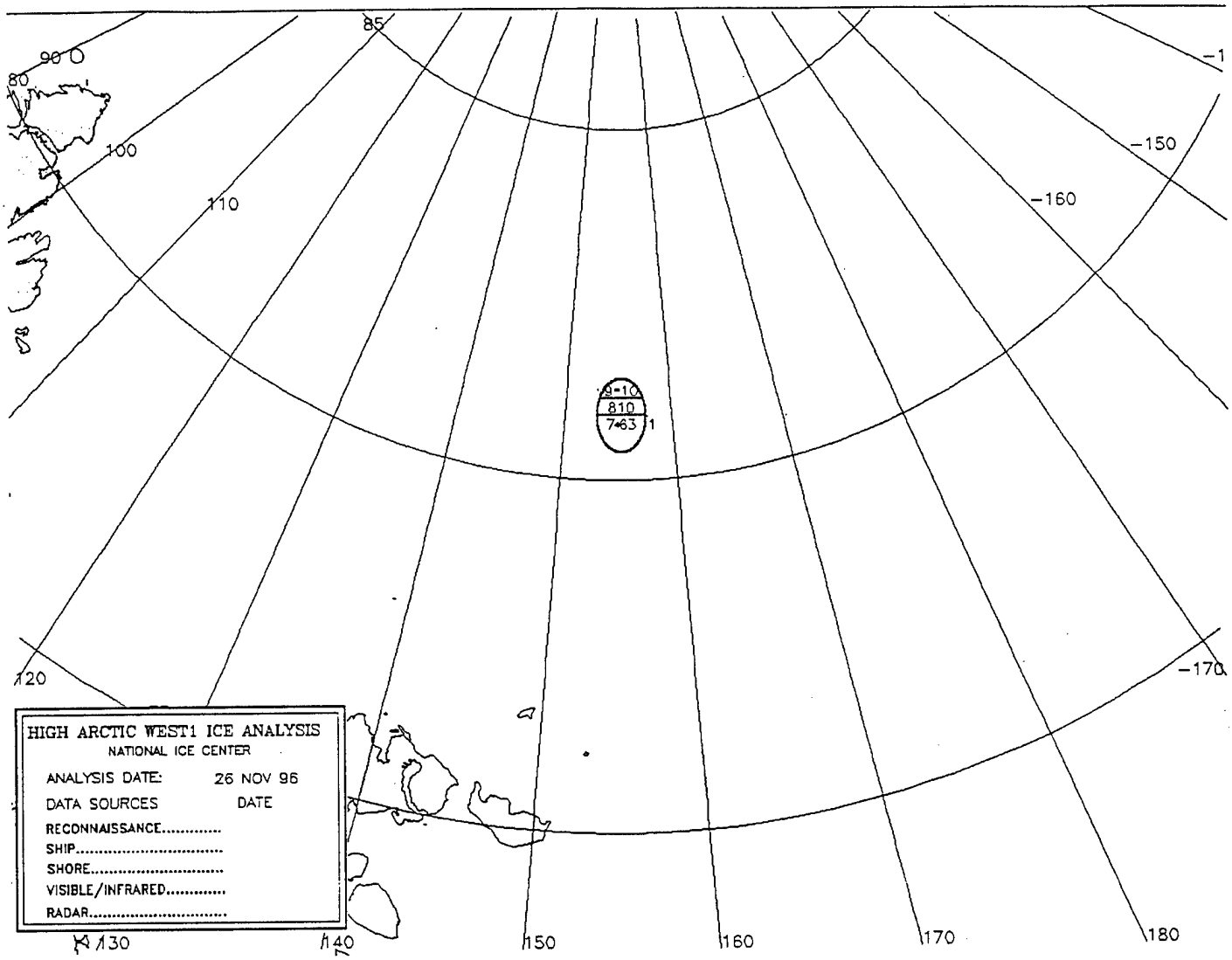
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
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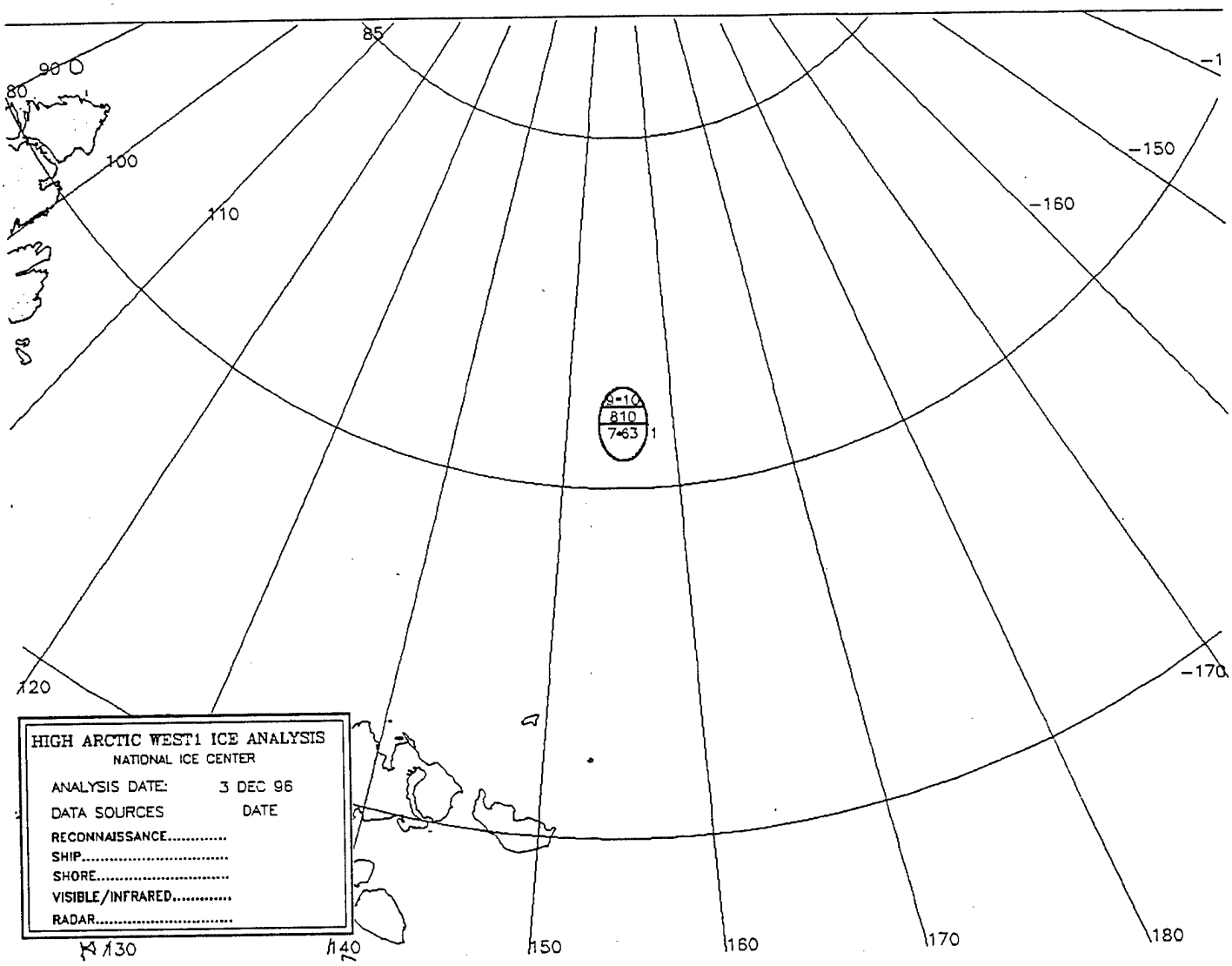


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER

ANALYSIS DATE: 3 DEC 96

DATA SOURCES DATE

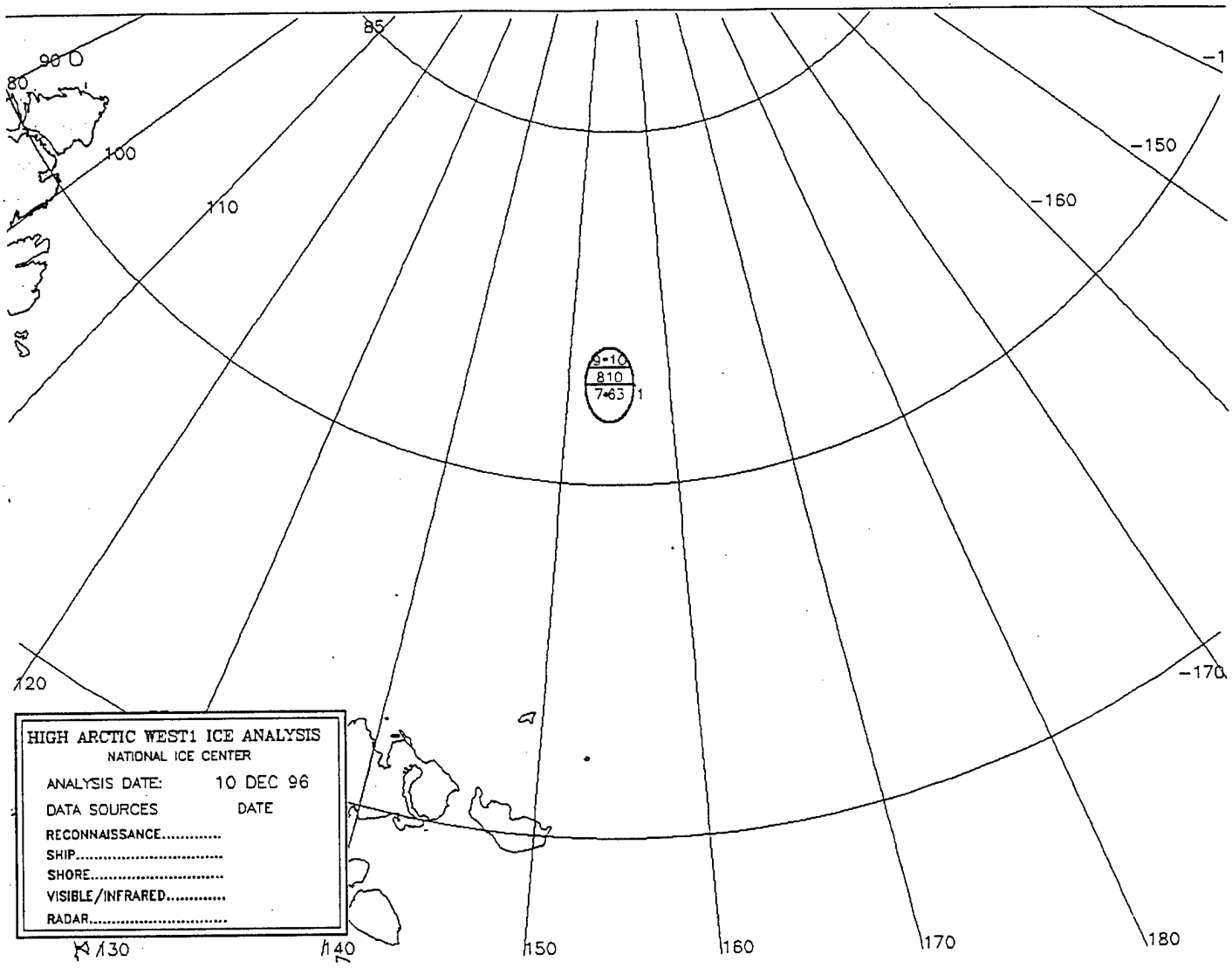
RECONNAISSANCE.....

SHIP.....

SHORE.....

VISIBLE/INFRARED.....

RADAR.....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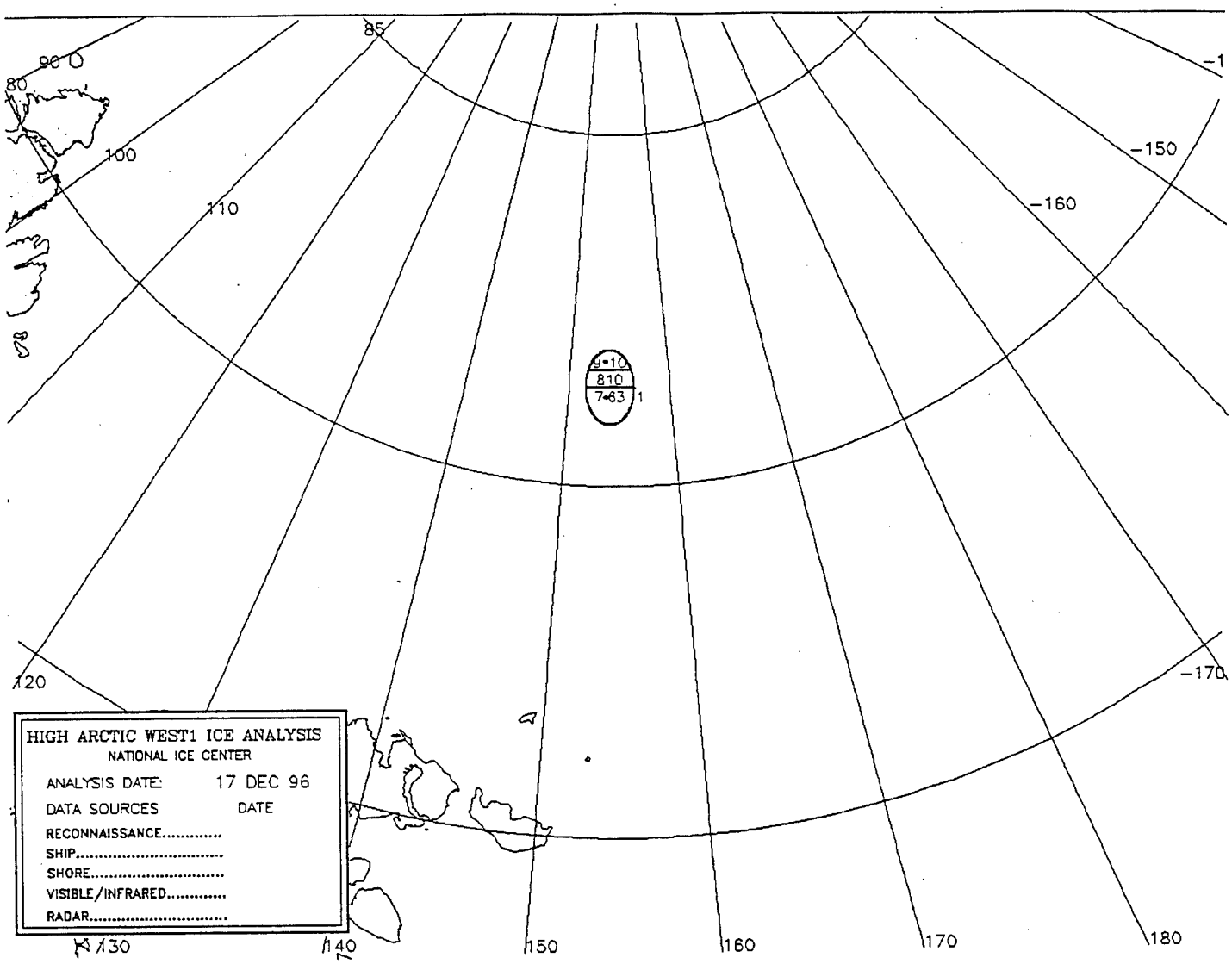
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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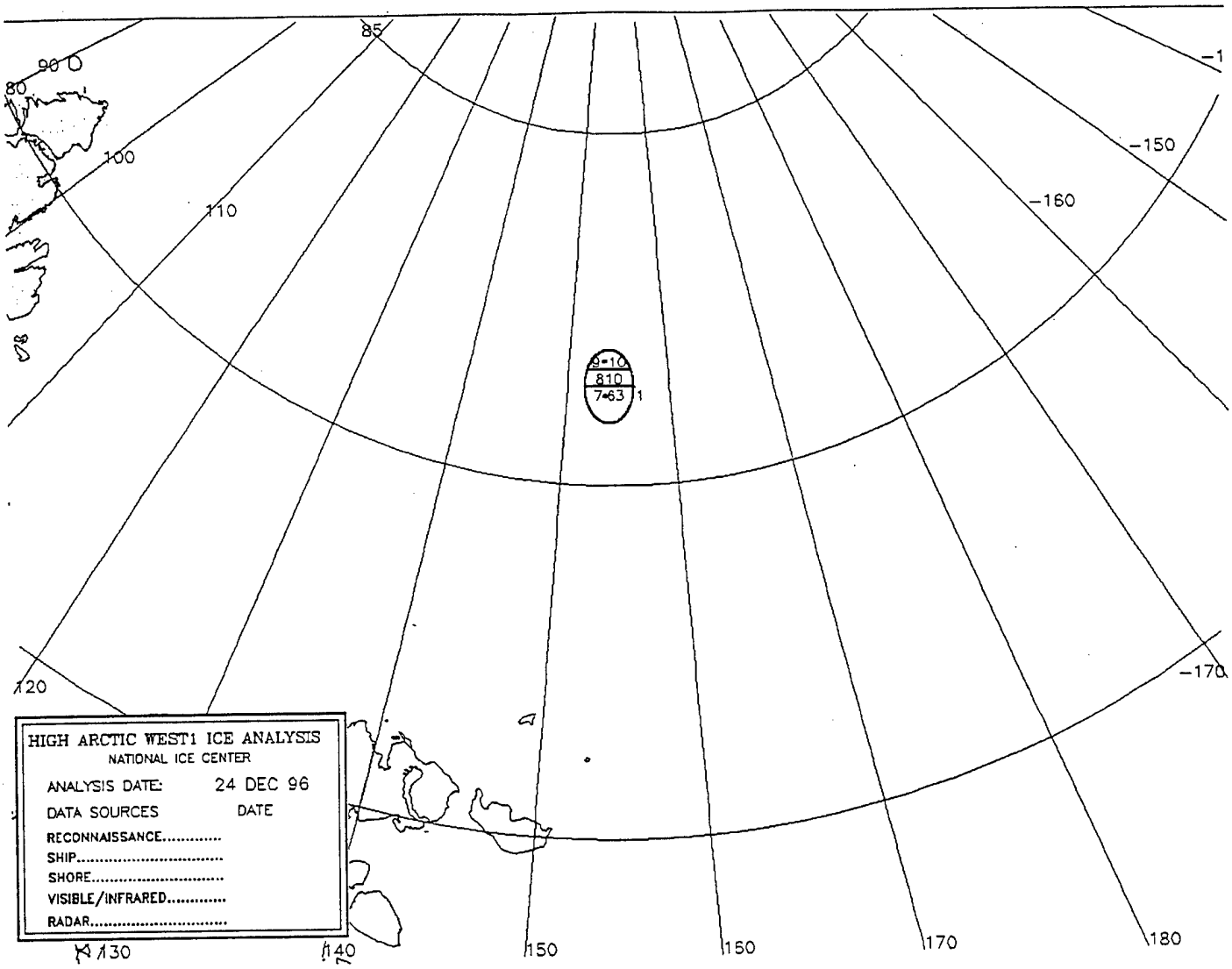
HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
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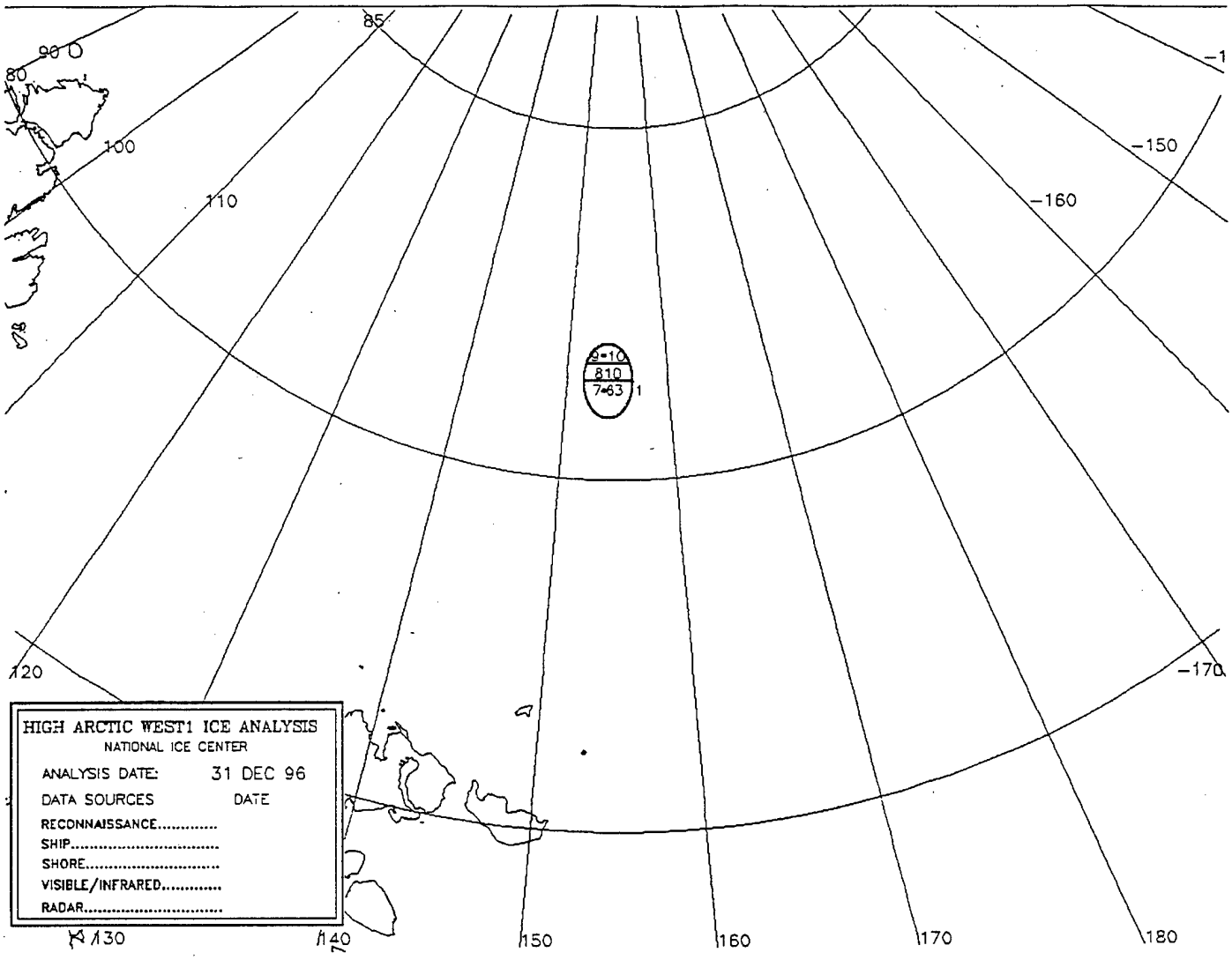

HIGH ARCTIC WEST1 ICE ANALYSIS
NATIONAL ICE CENTER

ANALYSIS DATE: 31 DEC 96

DATA SOURCES DATE

RECONNAISSANCE.....
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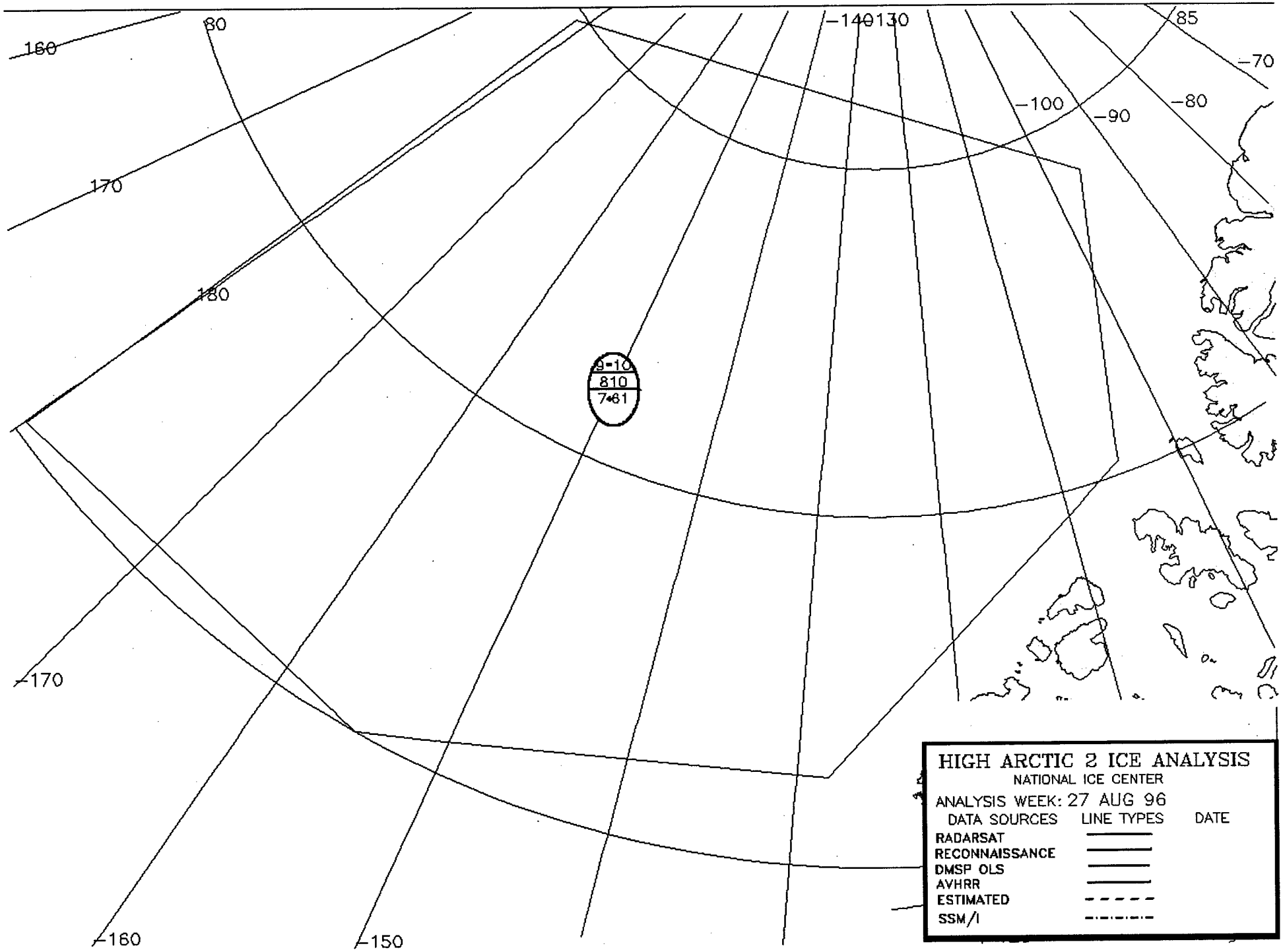
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC 2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS WEEK: 27 AUG 96
DATA SOURCES
LINE TYPES
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RADARSAT
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ESTIMATED
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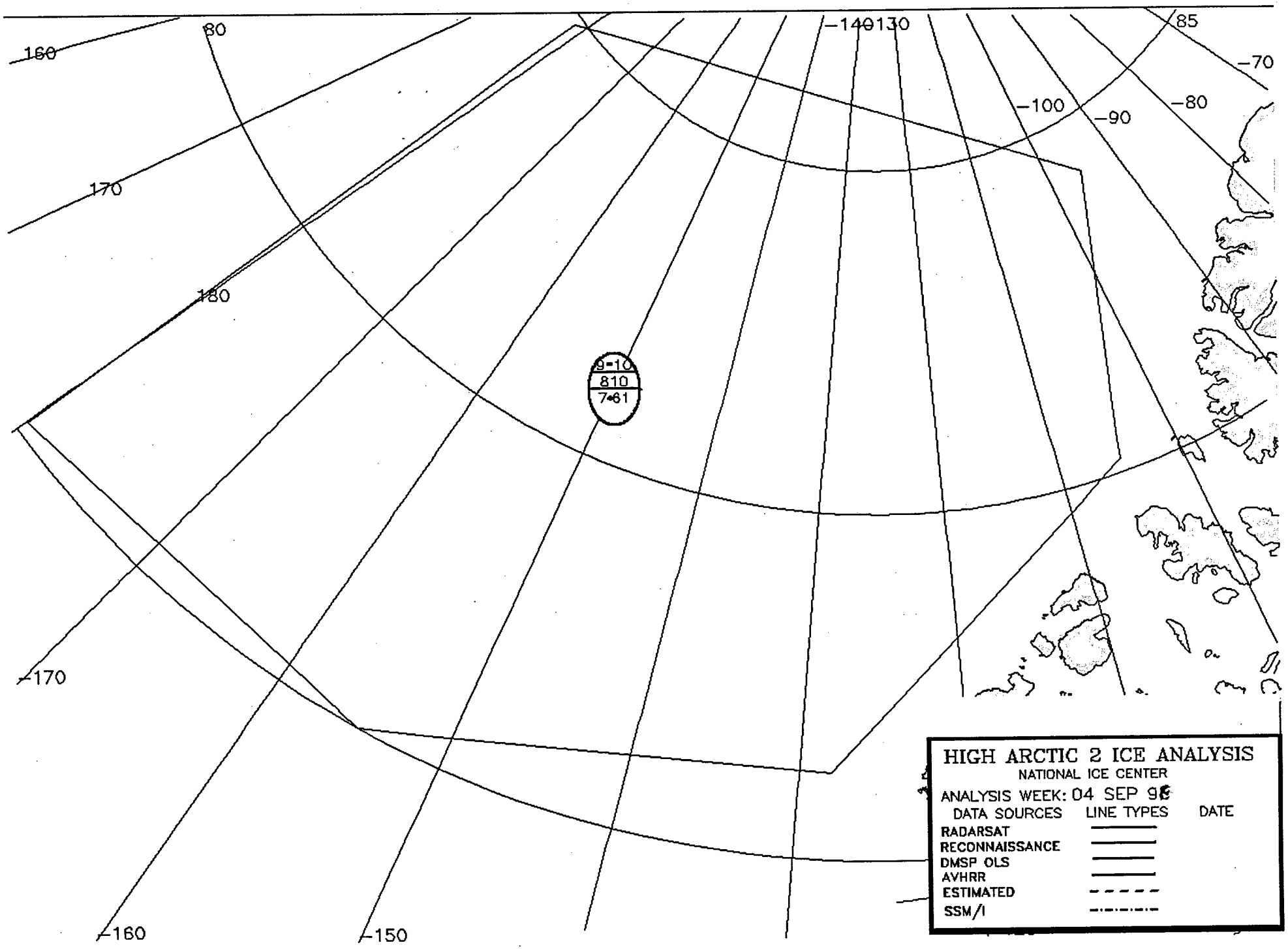
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HIGH ARCTIC 2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS WEEK: 04 SEP 96
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LINE TYPES
DATE
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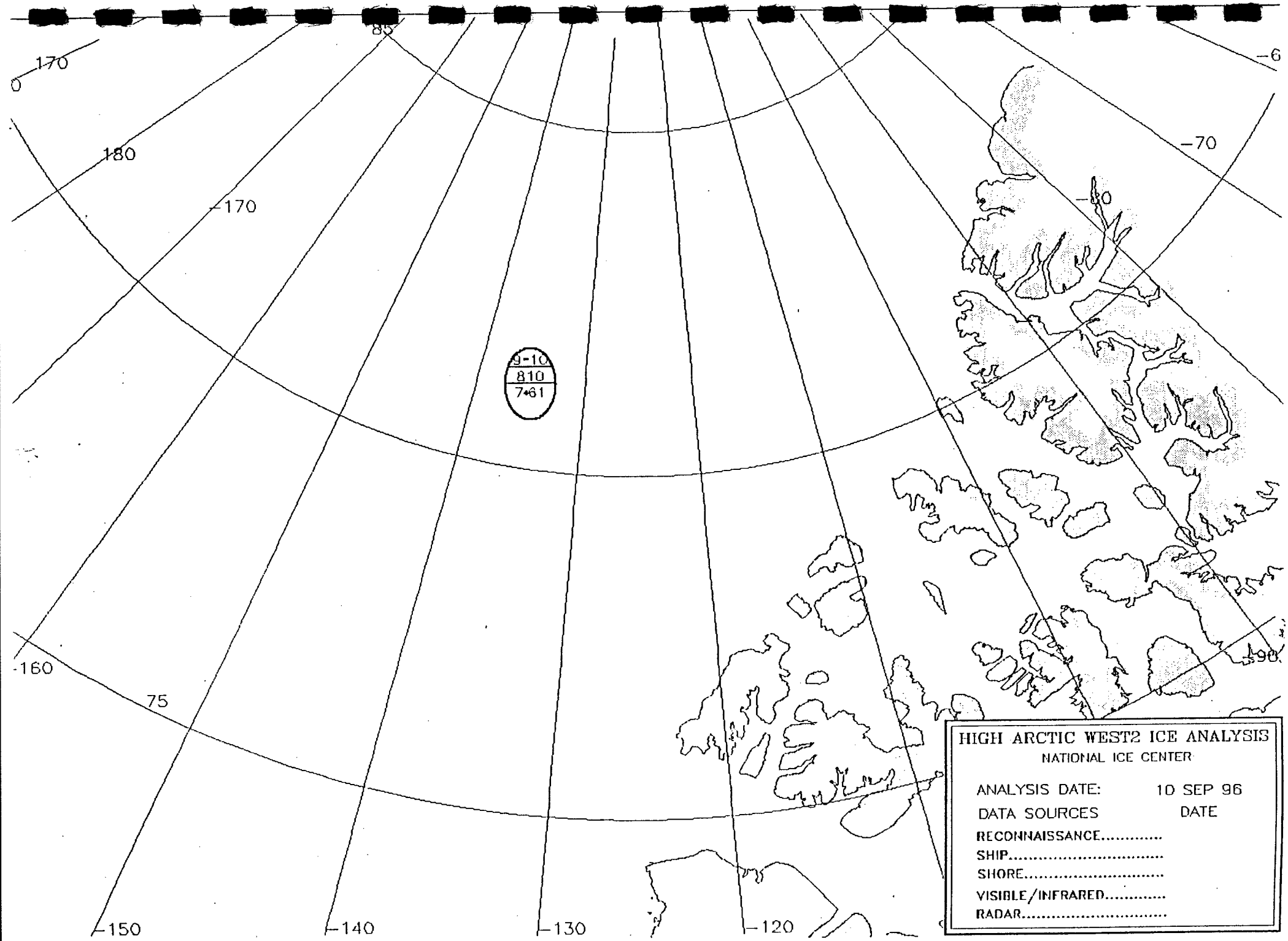
DMSP OLS
AVHRR
ESTIMATED
SSM/I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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 SEP 96
DATA SOURCES DATE
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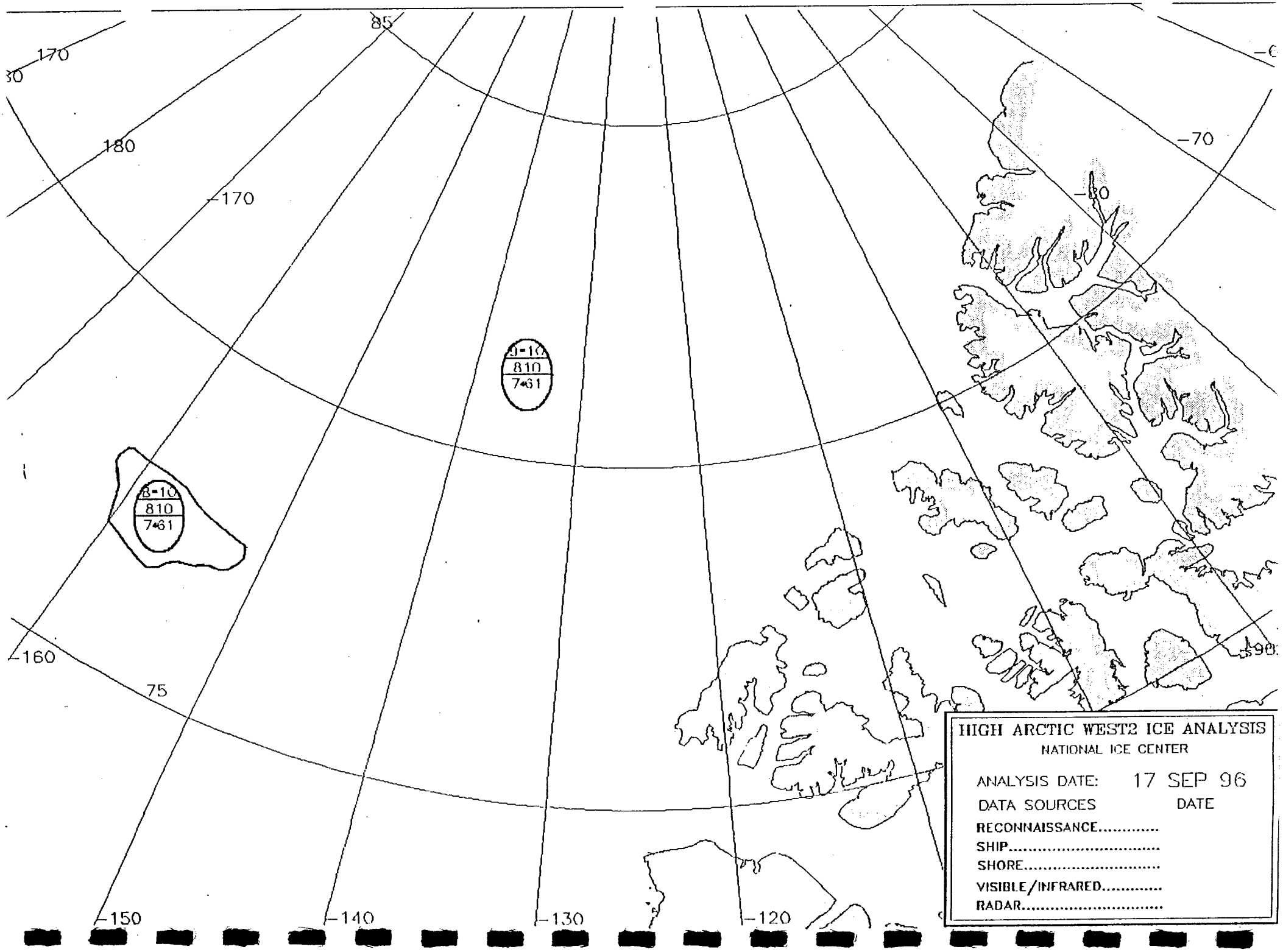
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 SEP 96
DATA SOURCES DATE
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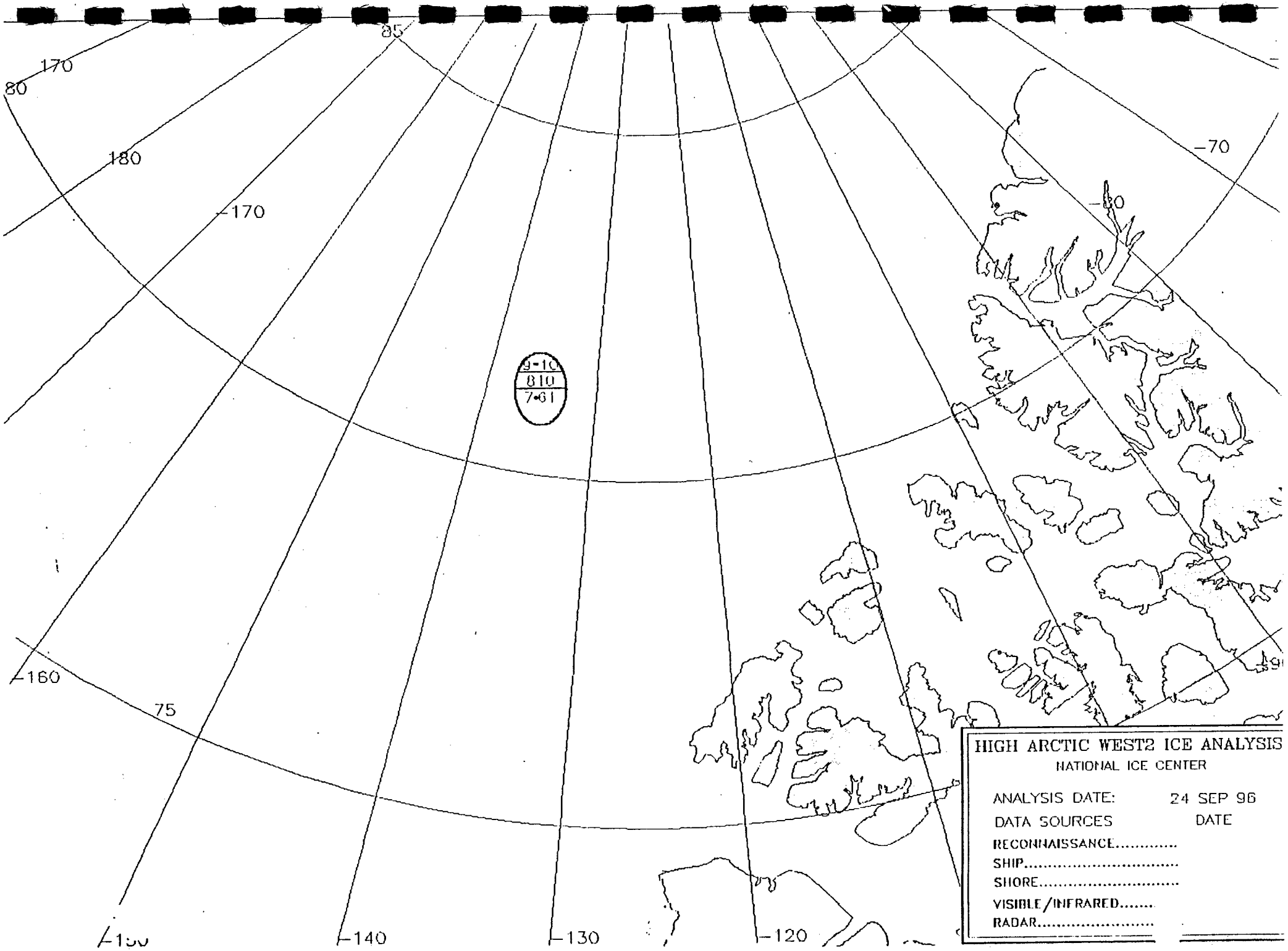
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 SEP 96
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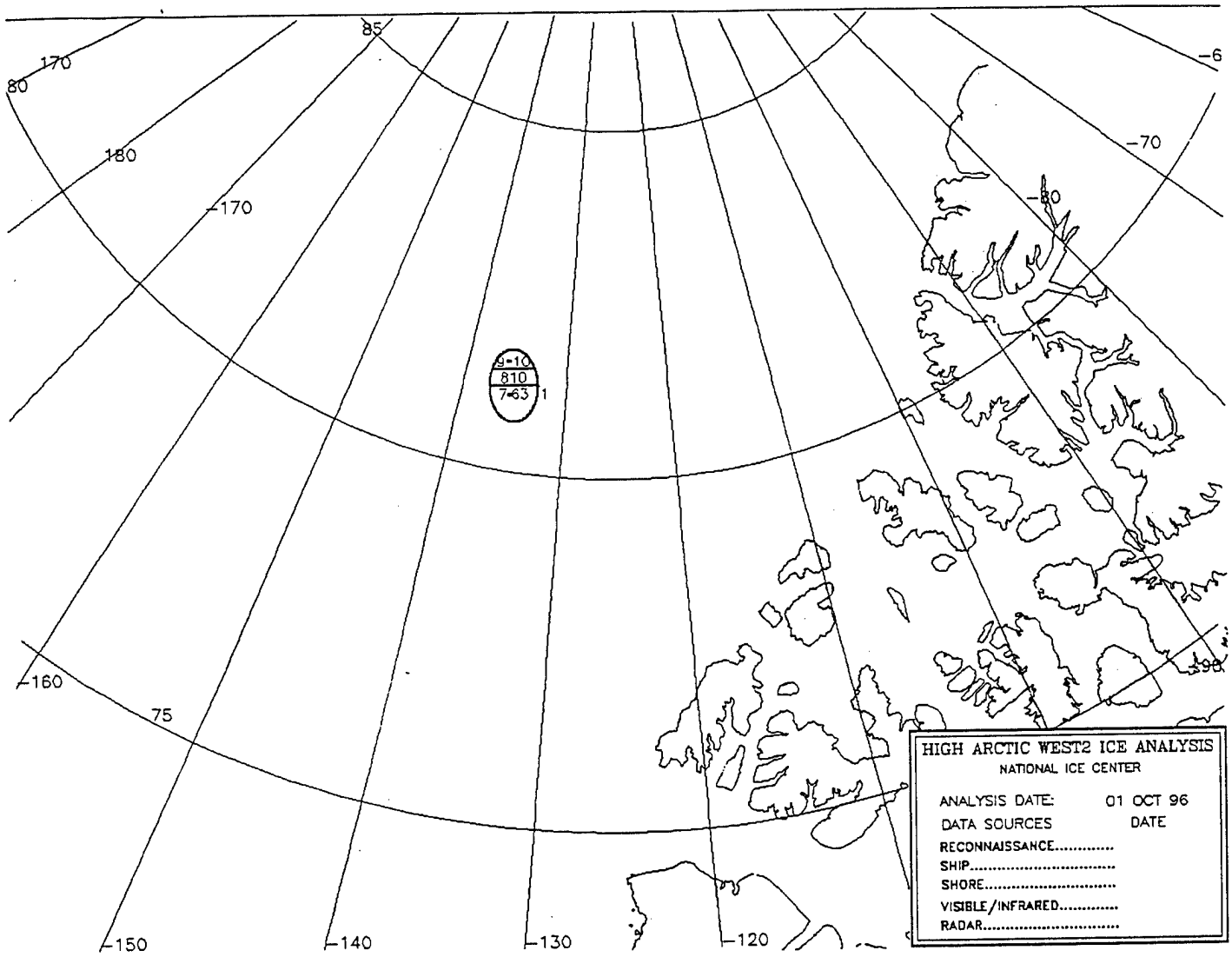
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 01 OCT 96
DATA SOURCES DATE
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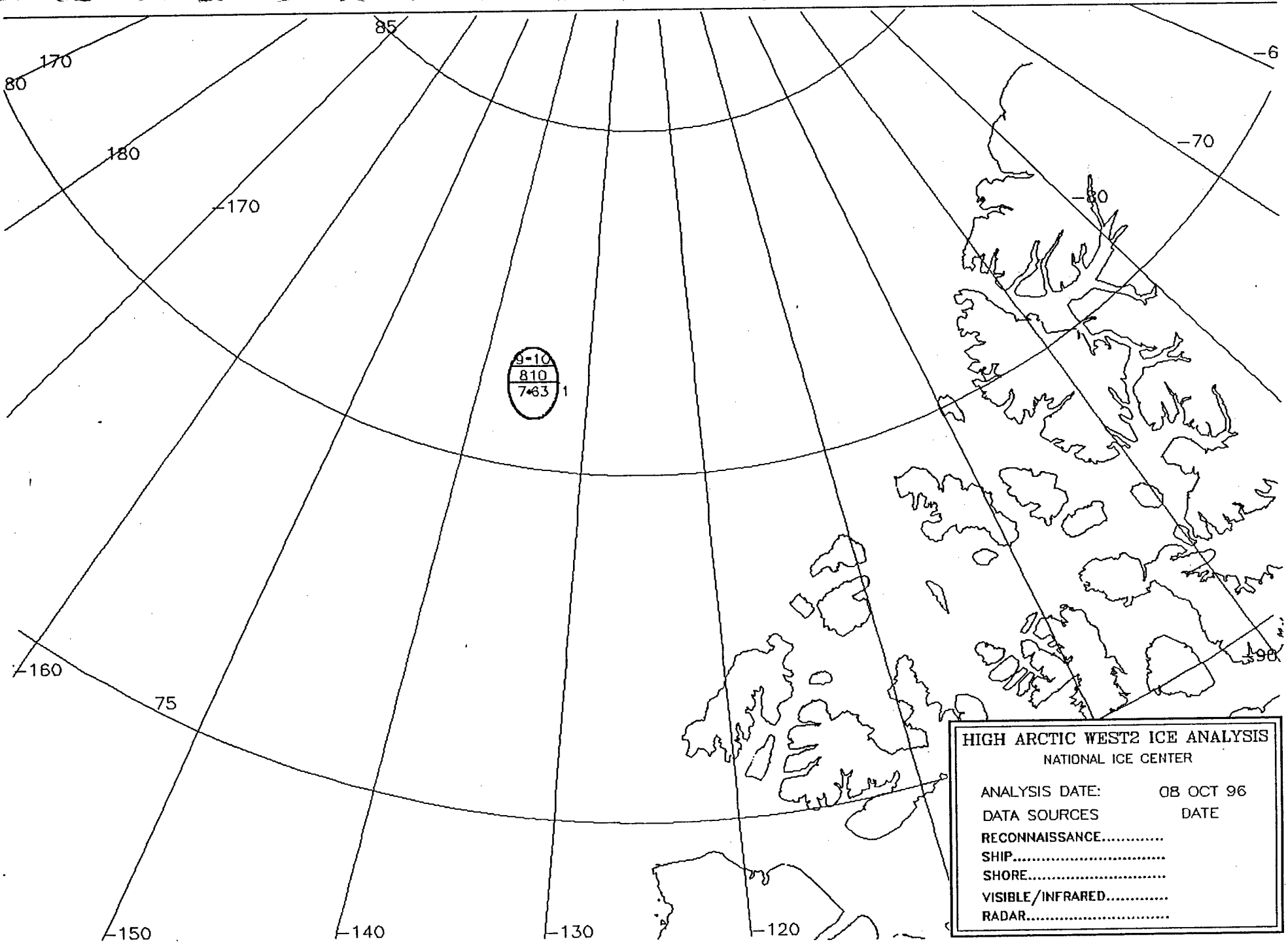
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
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ANALYSIS DATE: 08 OCT 96
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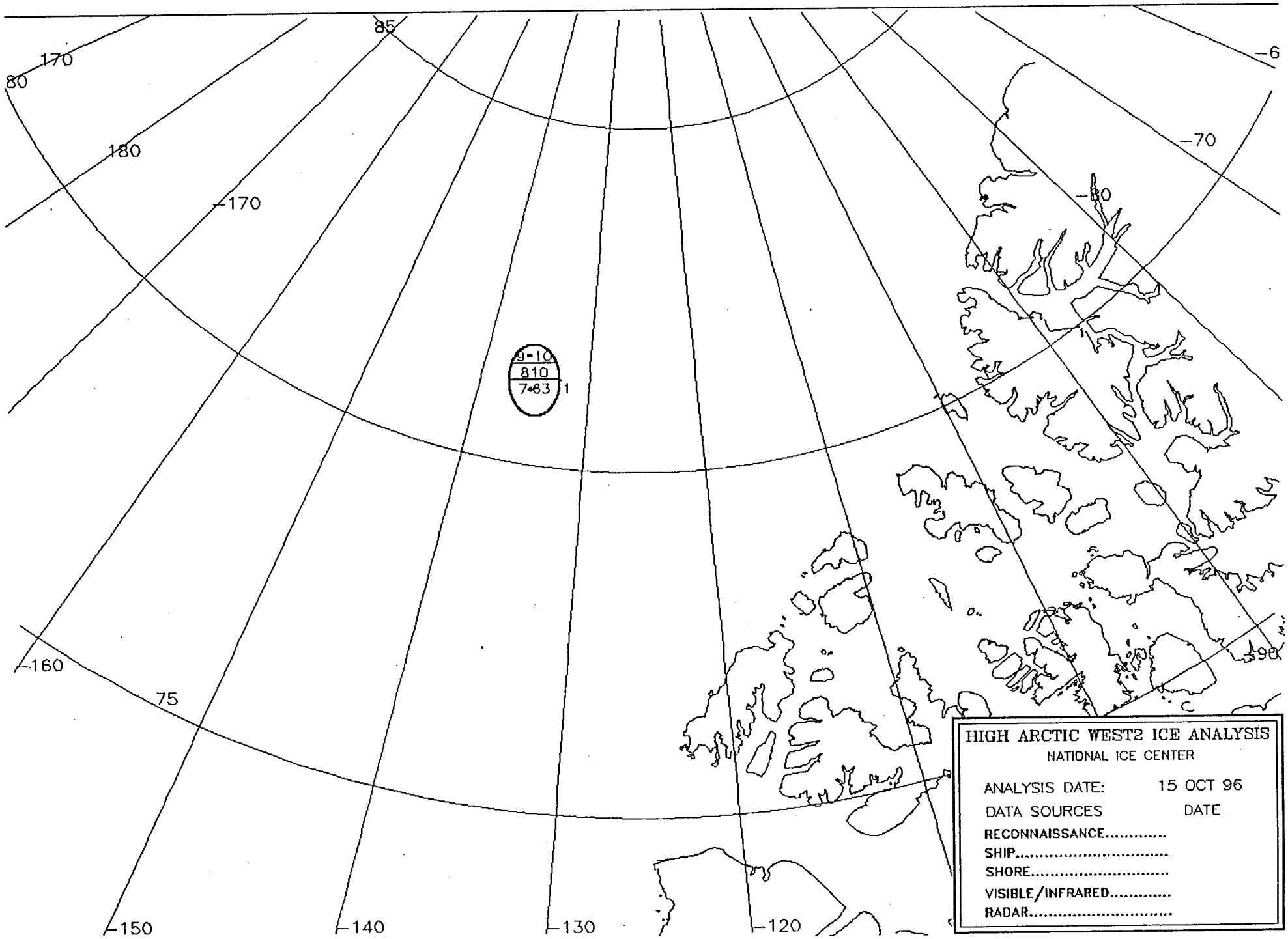
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 15 OCT 96
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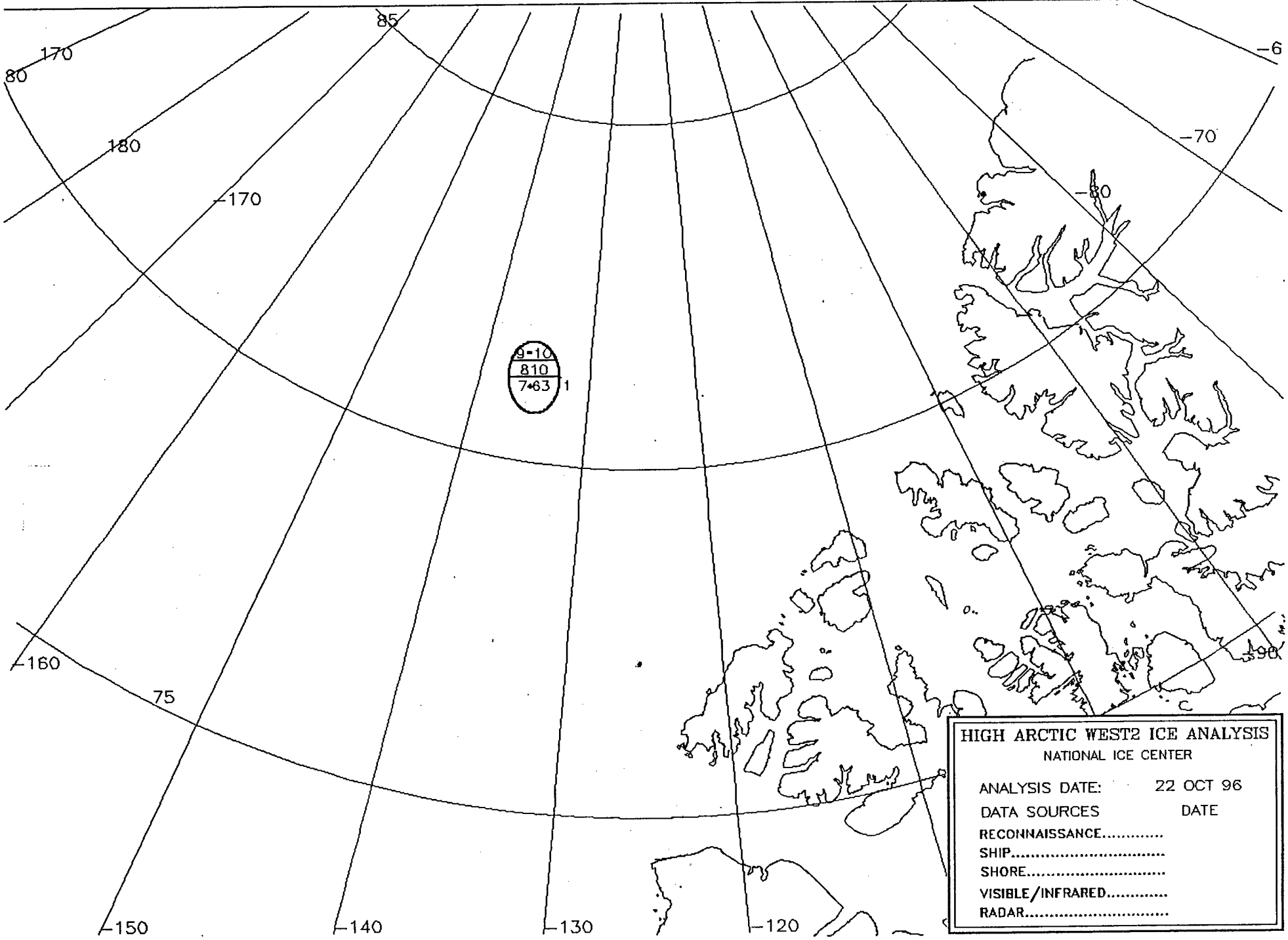
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 22 OCT 96
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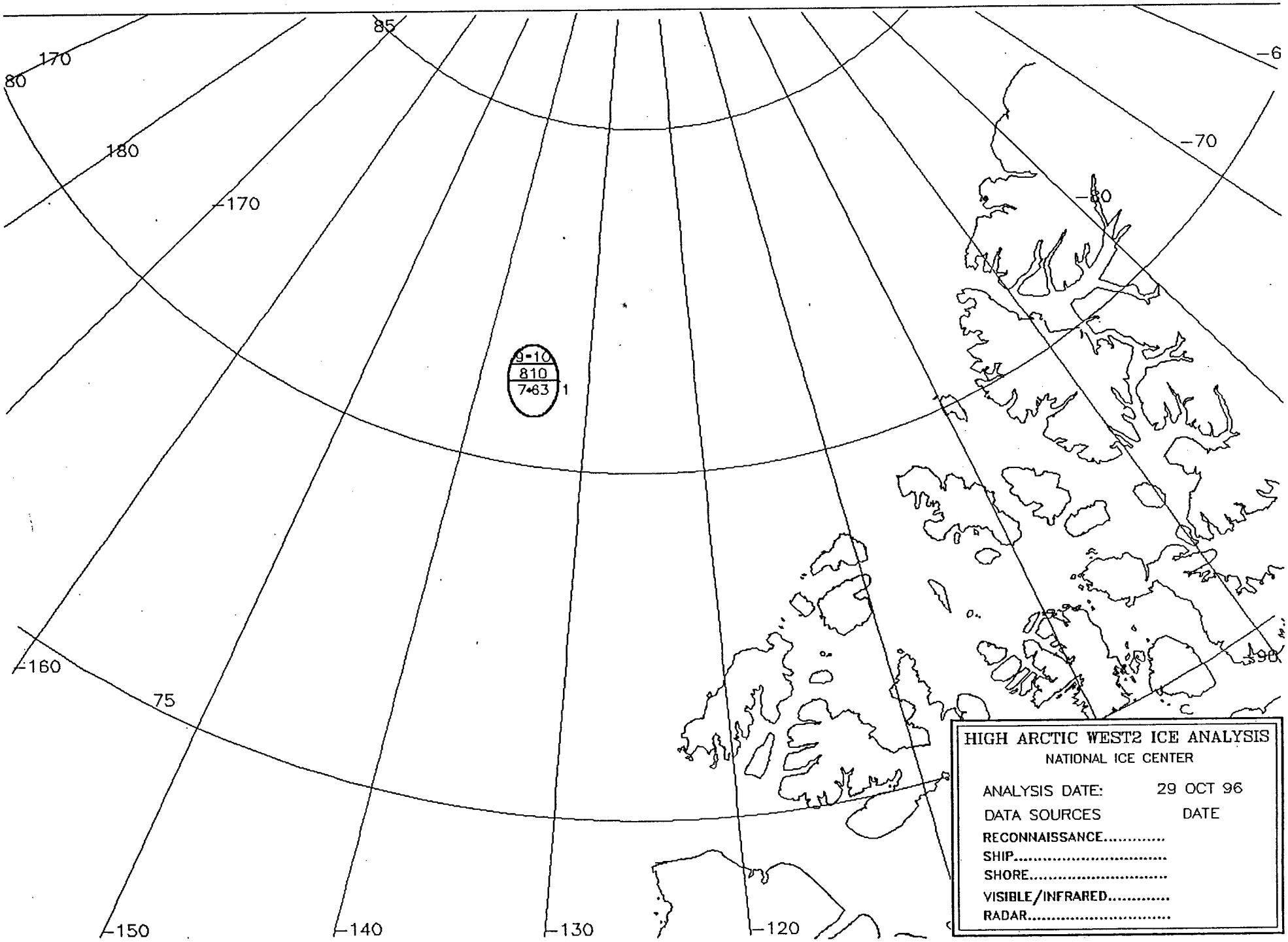
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 29 OCT 96
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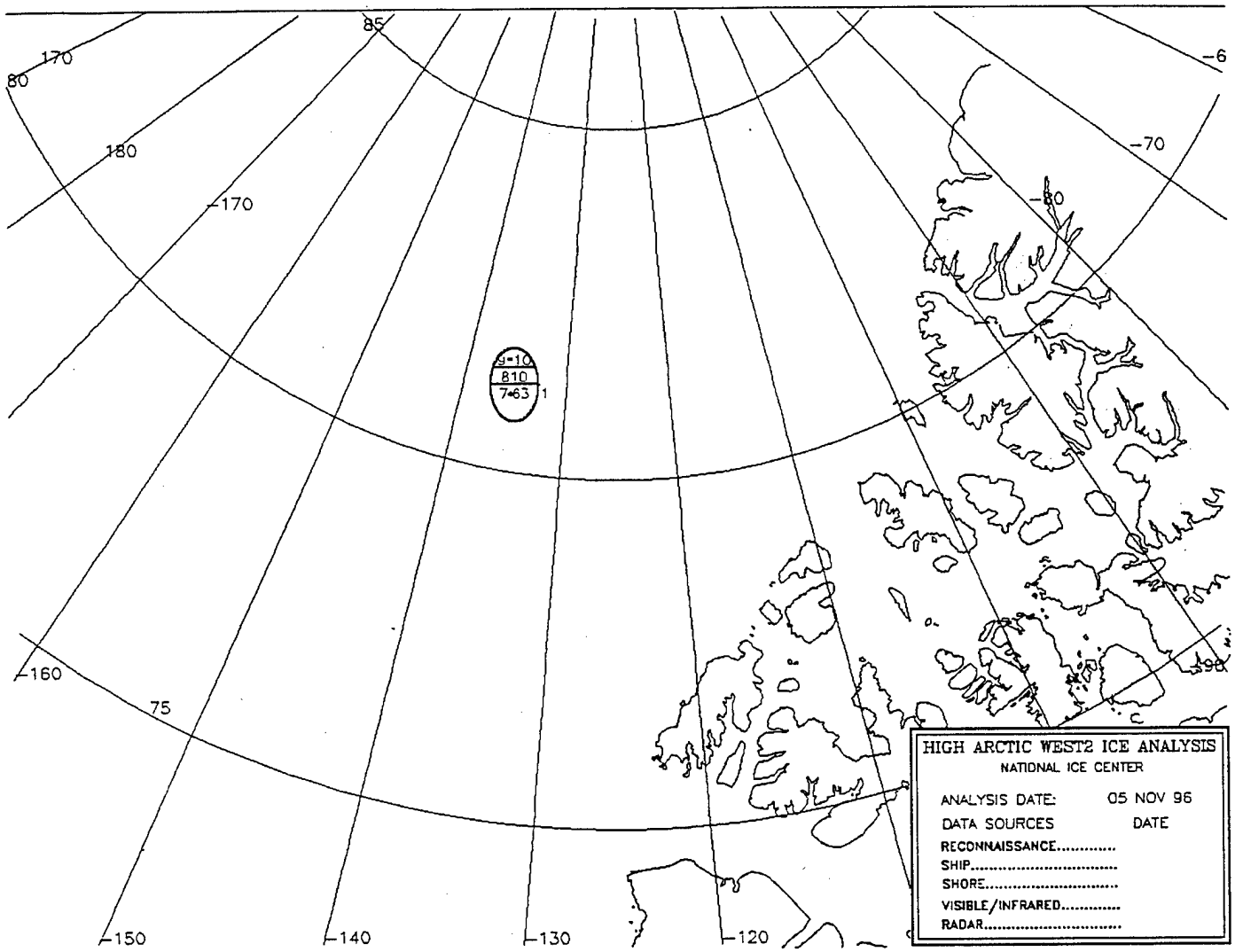
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
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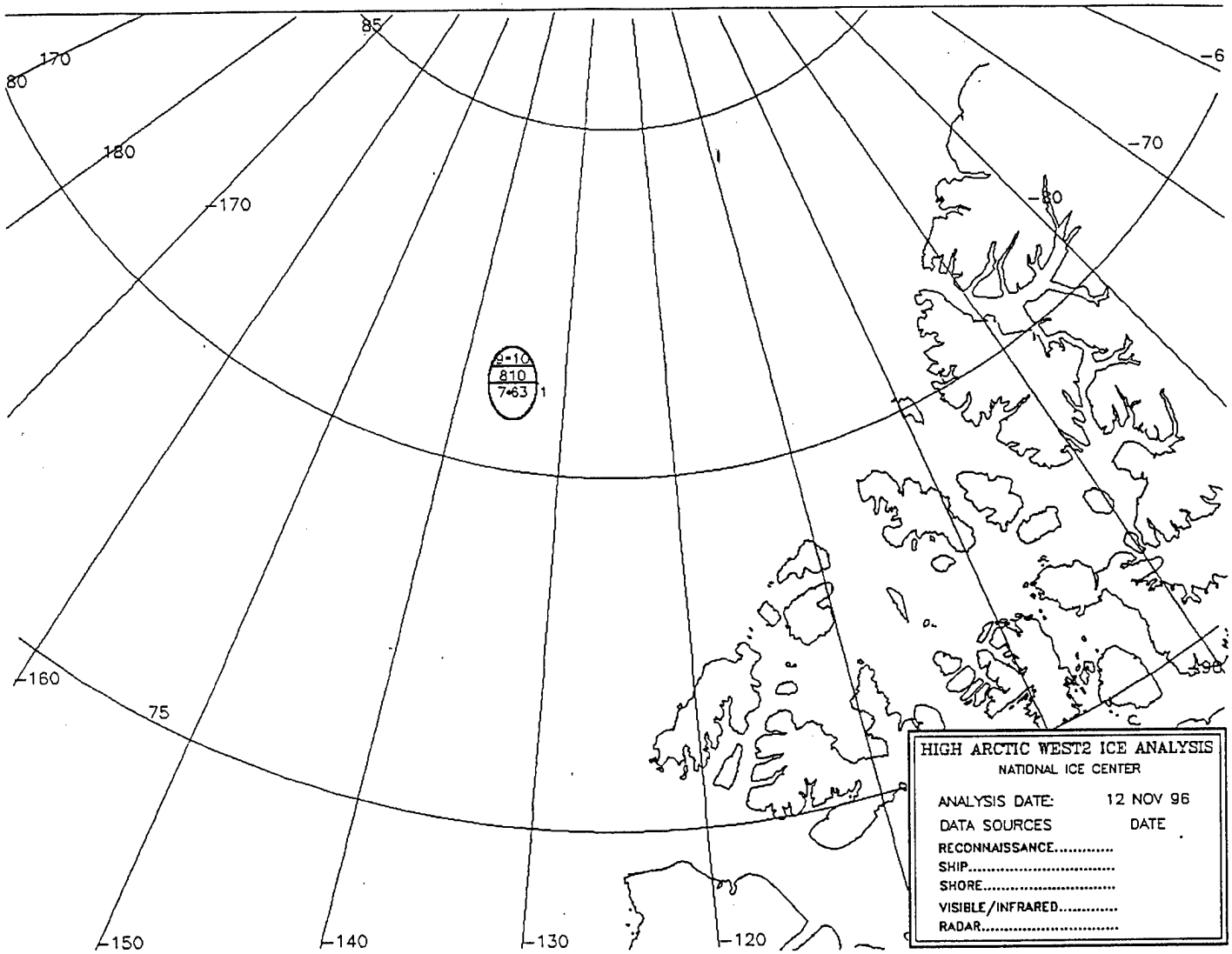
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
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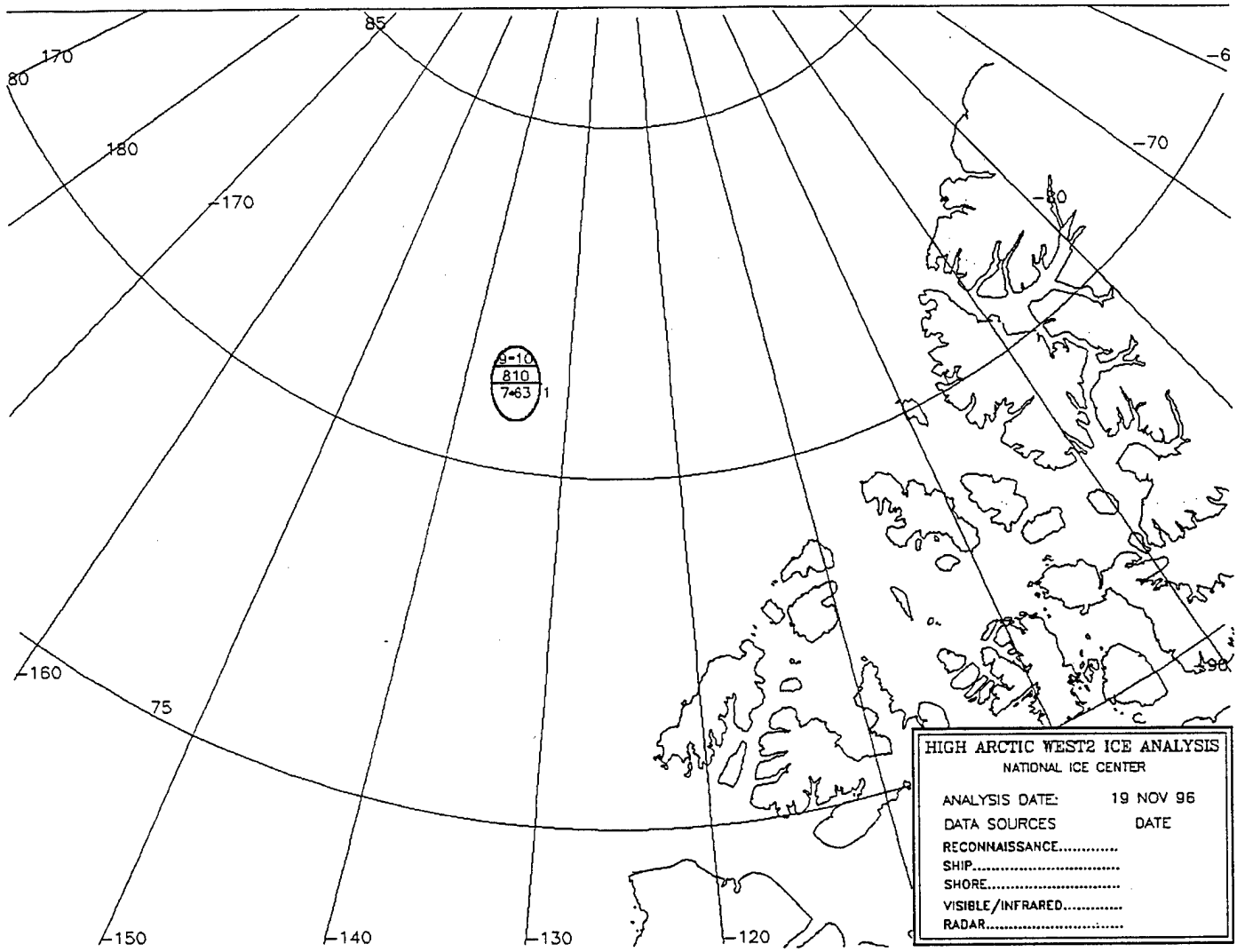
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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
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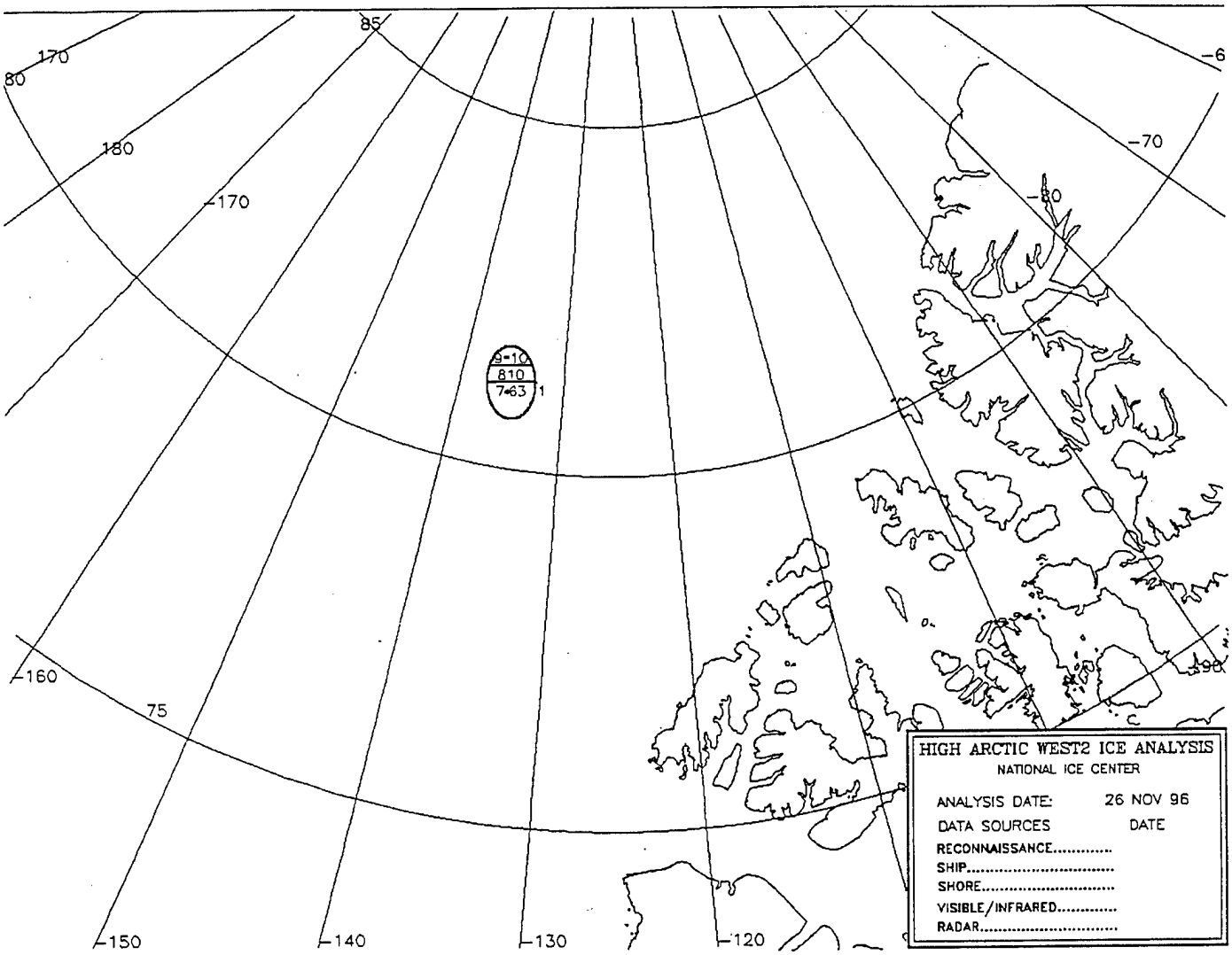
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
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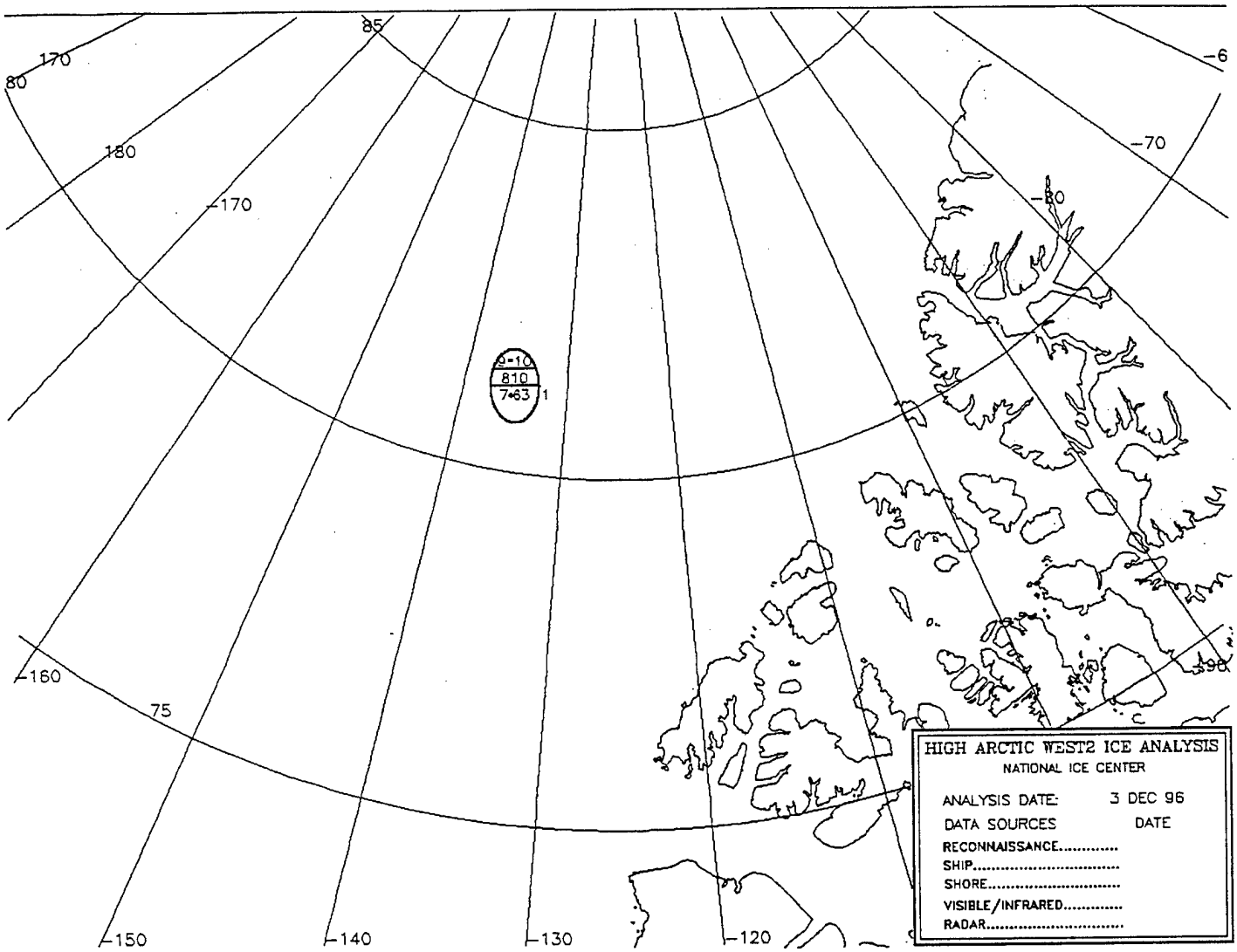
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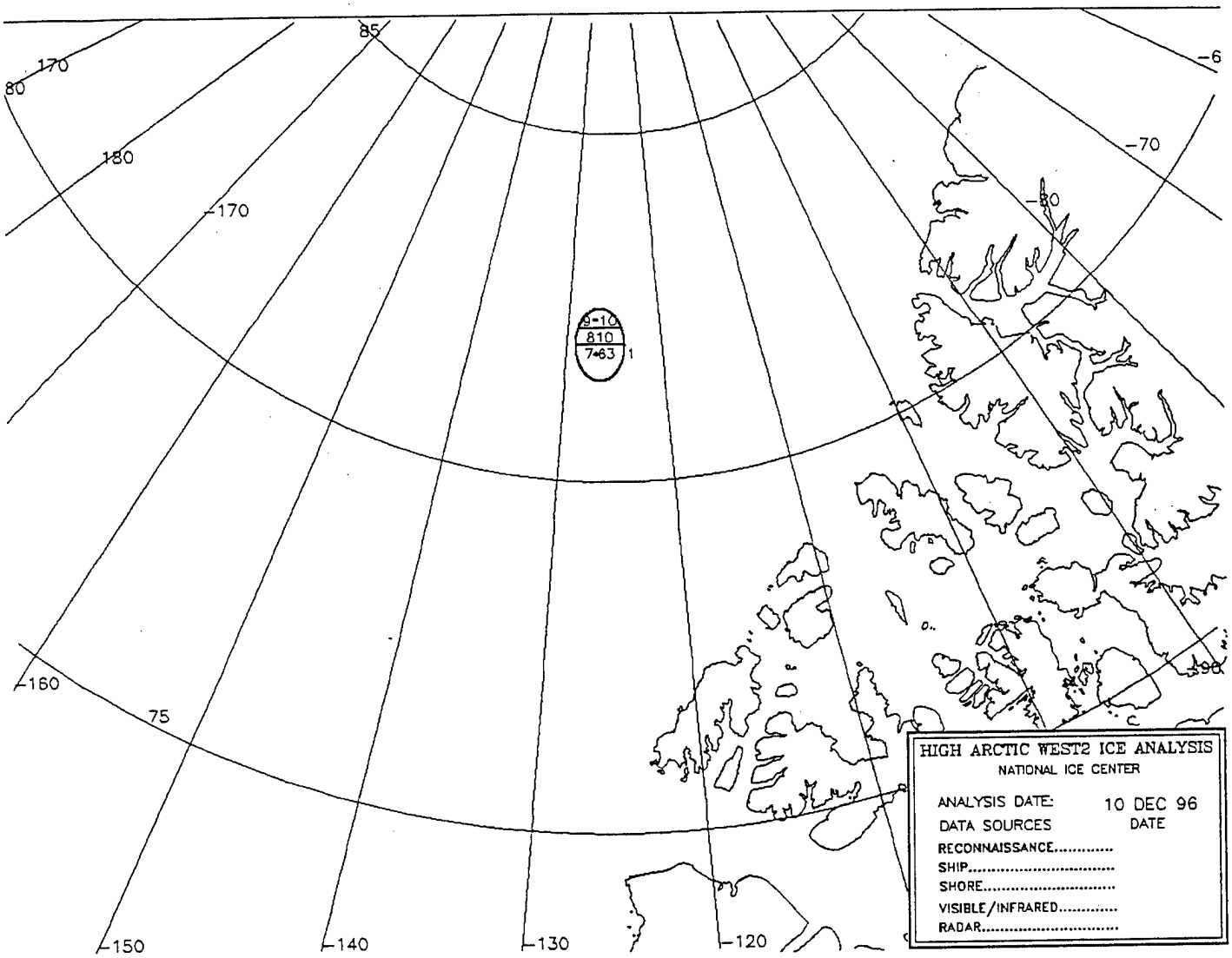
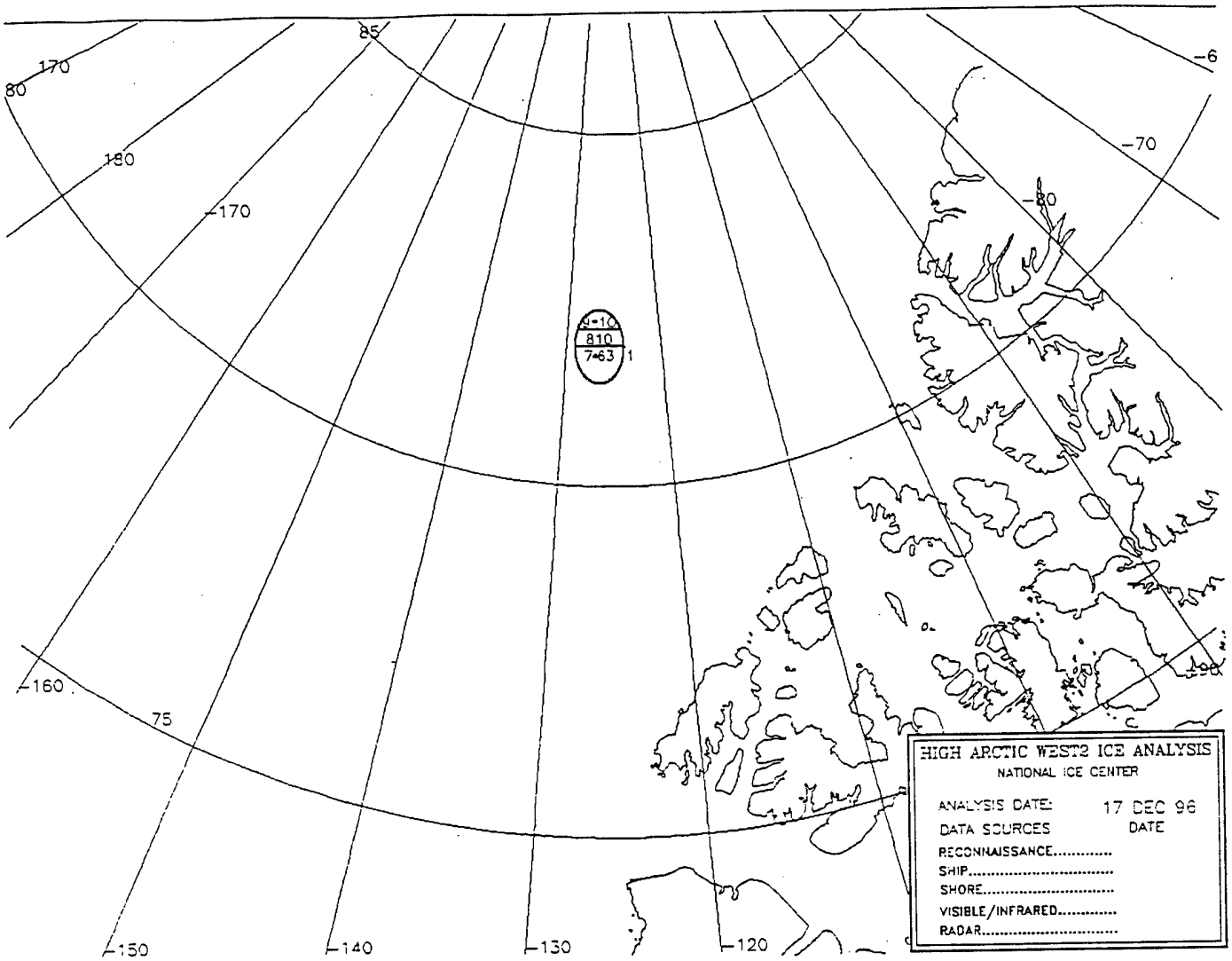
HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....


85
80
170
180
-170
-160
75
-150
-140
-130
-120
-6
-70
-80
-90
9-10
810
7-63
1
HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE:
10 DEC 96
DATE
DATA SOURCES
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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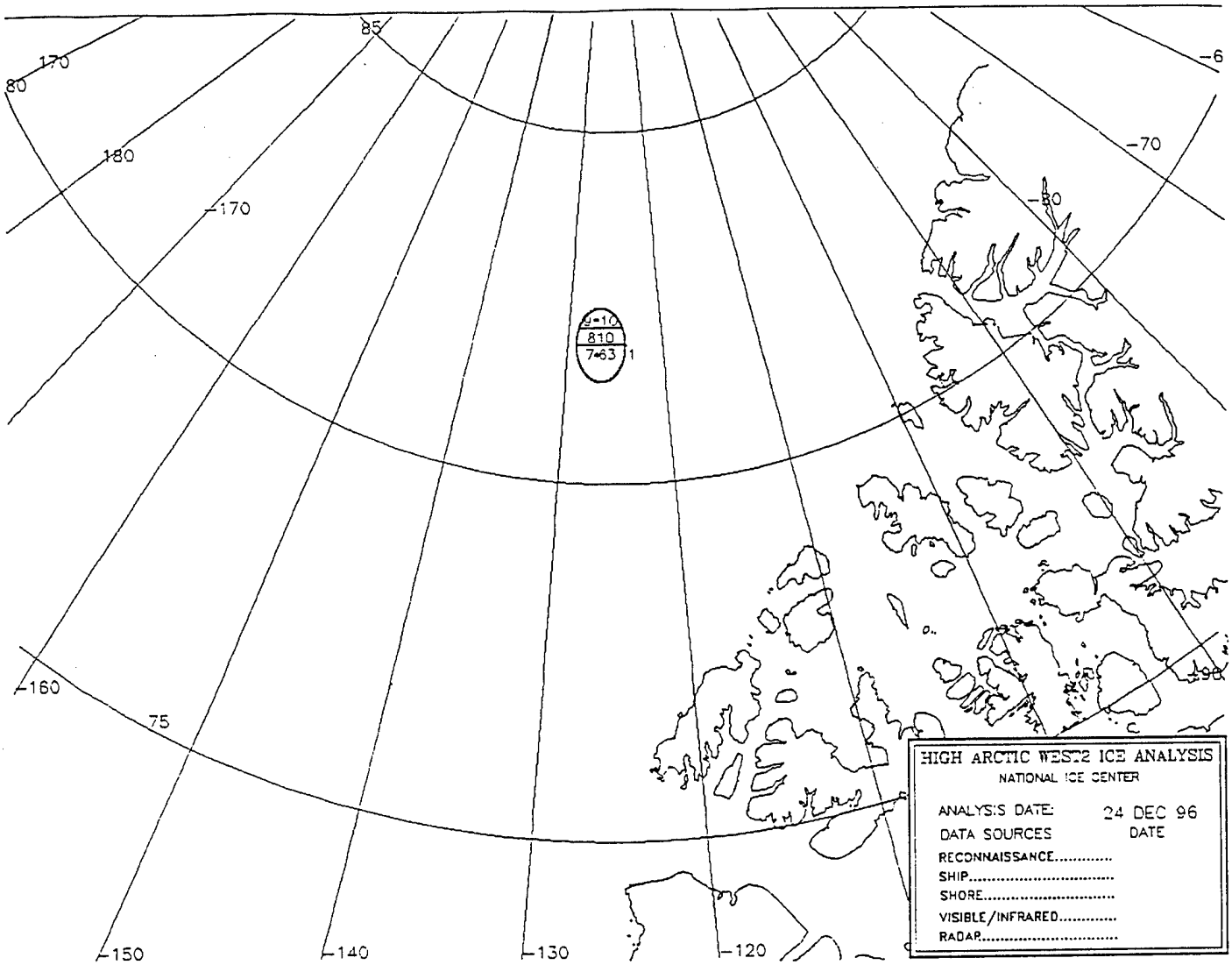
-120
-110
-100
-90
-80
-70
-60
9-10
810
7-63
1
HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....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180
-170
-160
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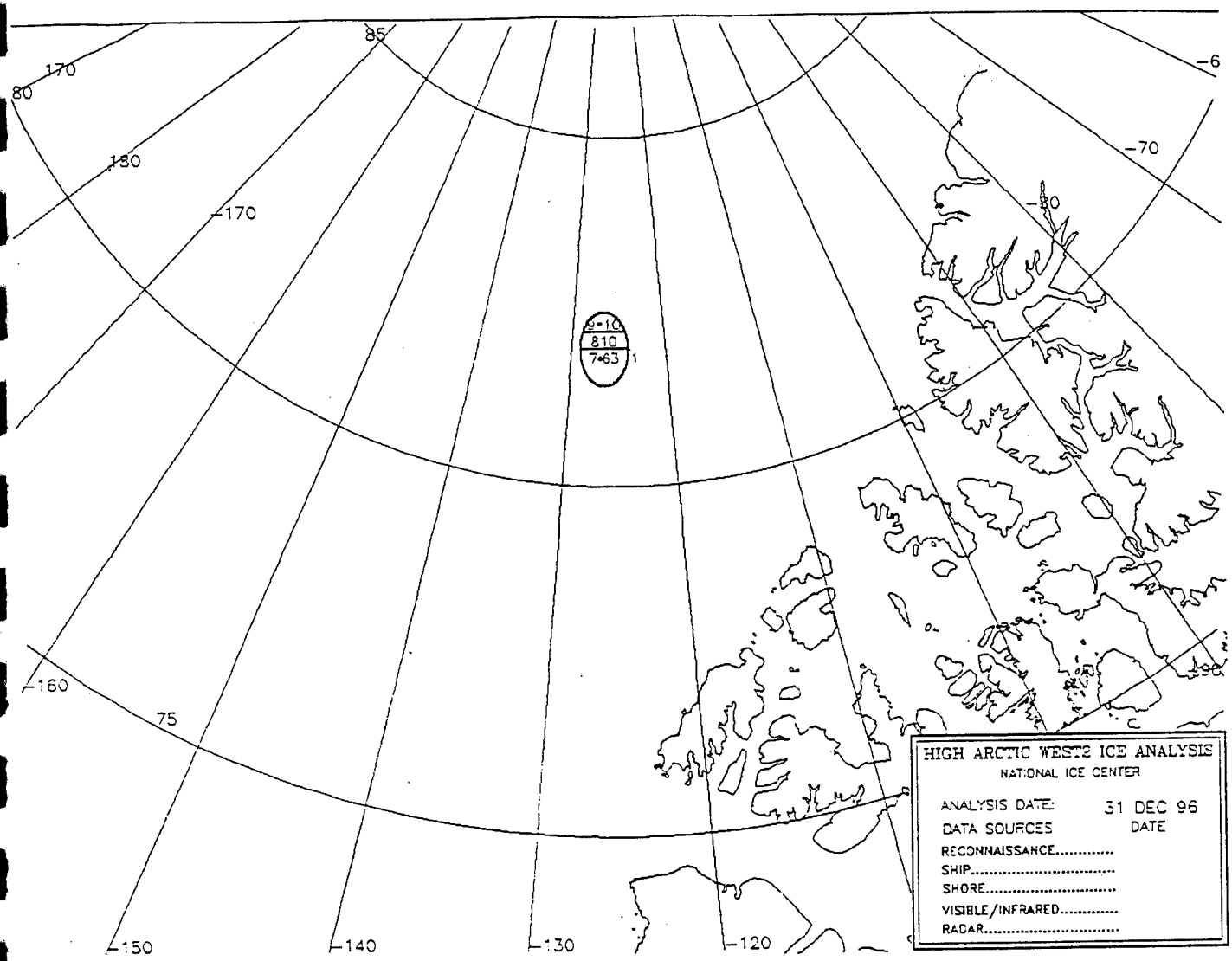
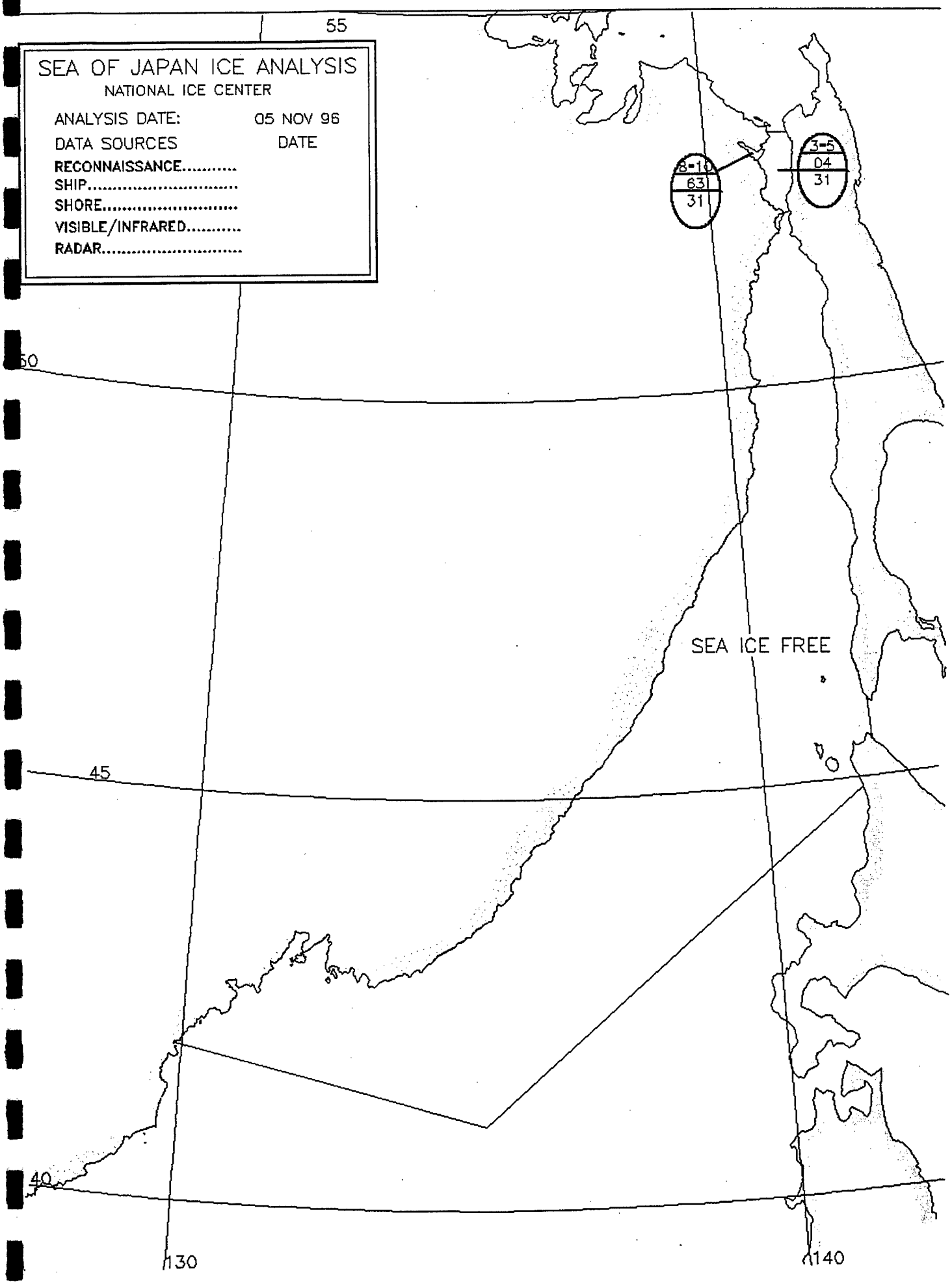
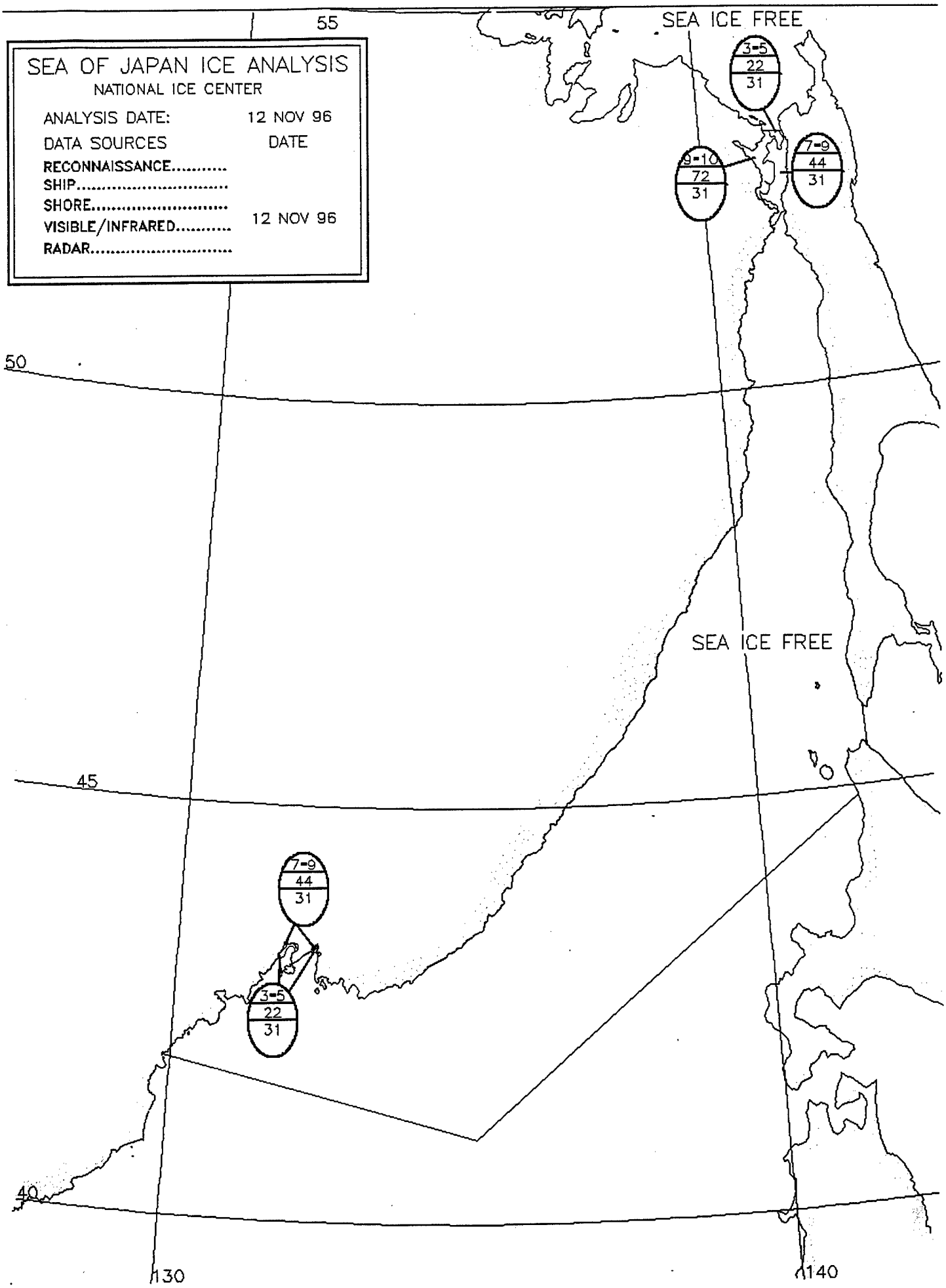
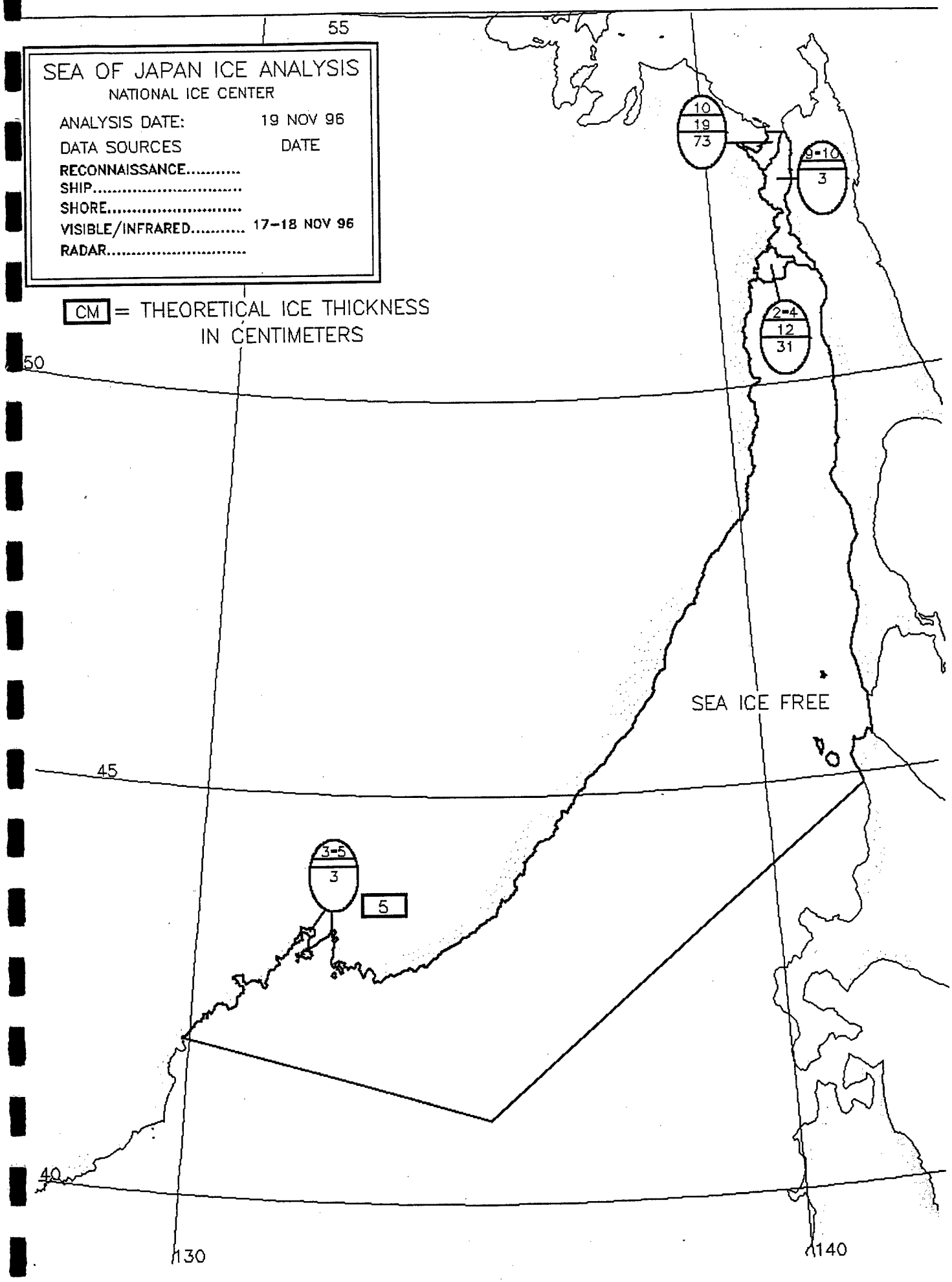
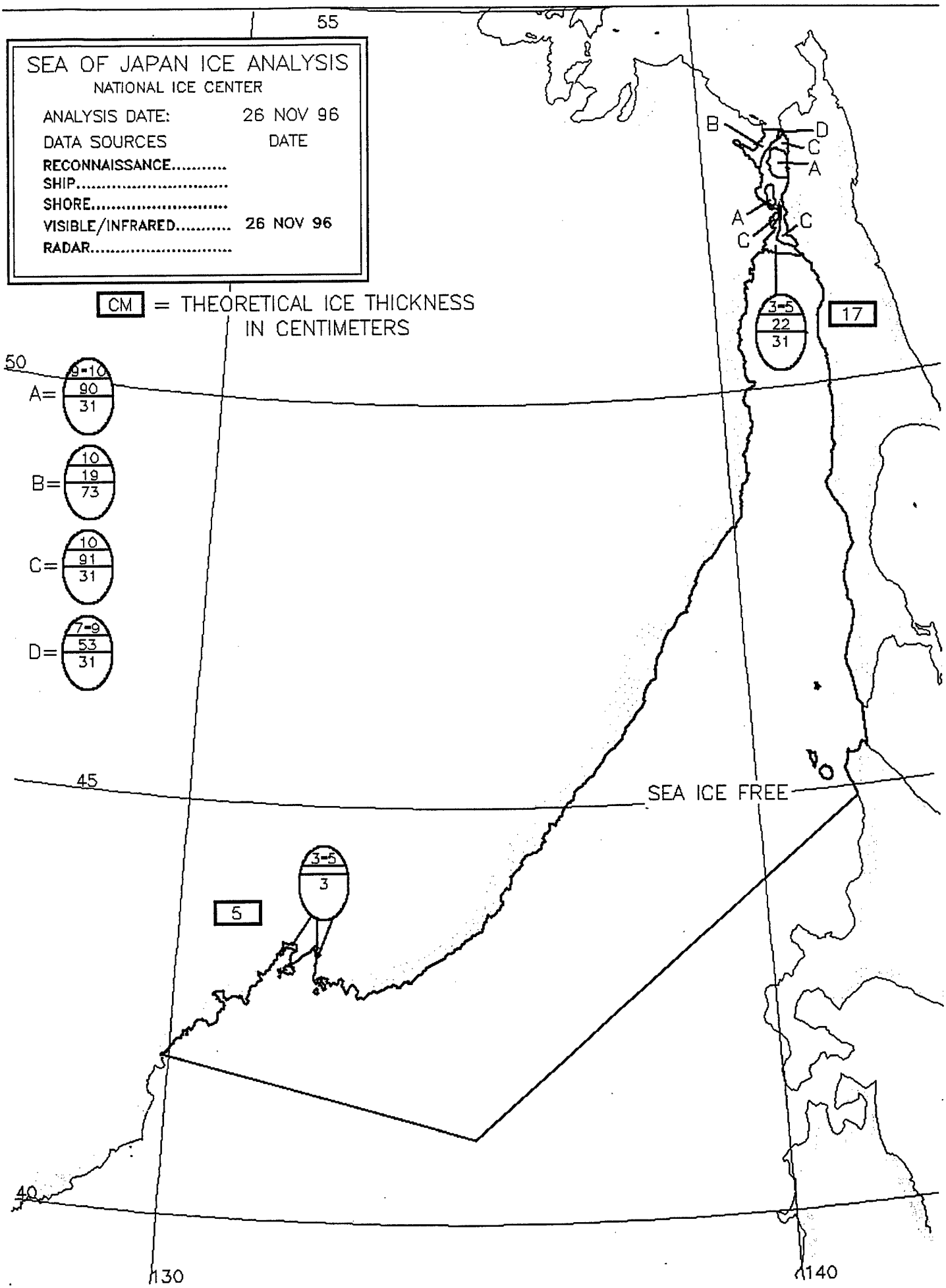
-150
-140
-130
-120
-6
-70
-80
-90
9-10
810
7-63
1
HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....

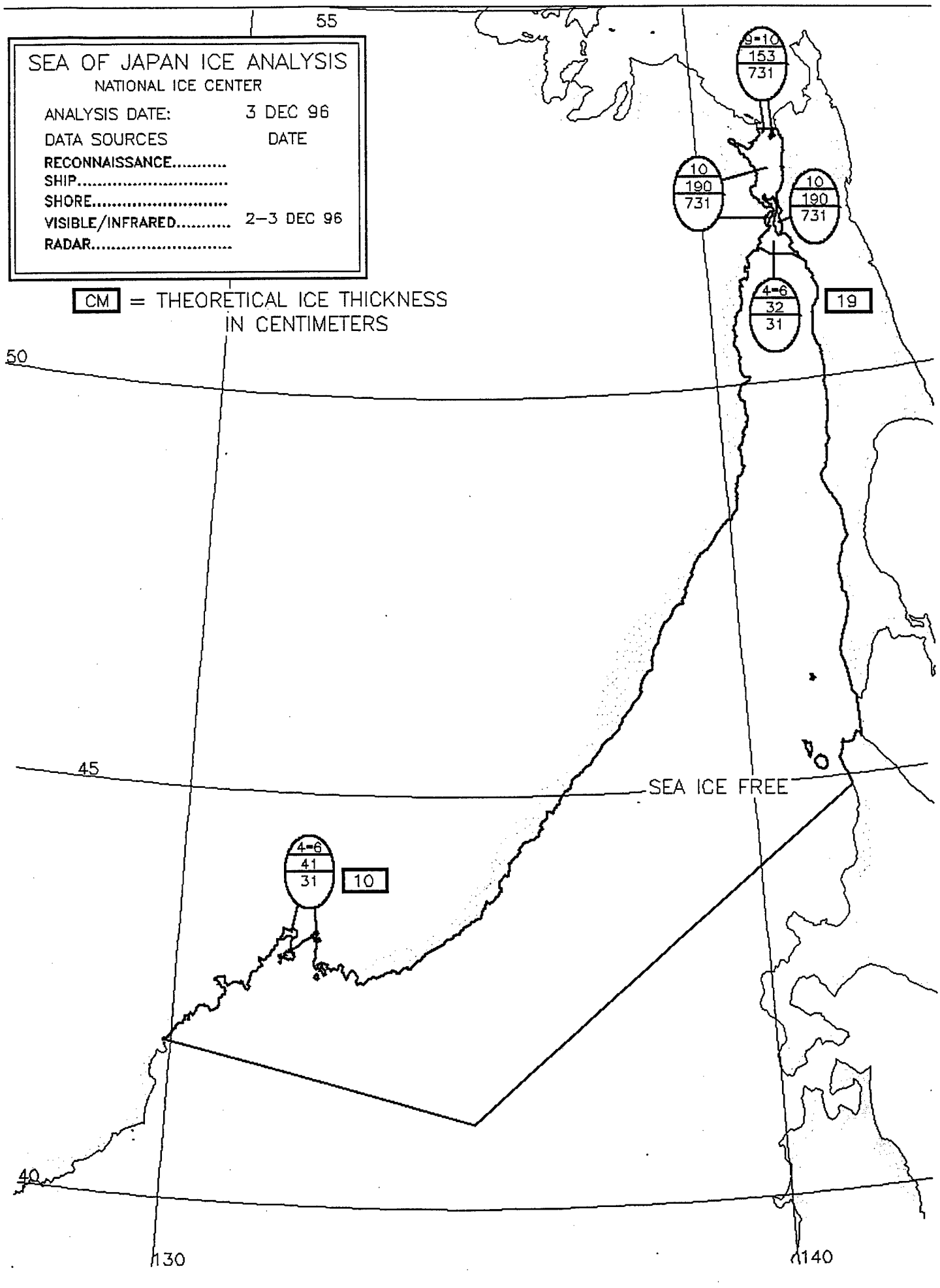

85
80
170
180
170
-160
75
-150
-140
-130
-120
-6
-70
-80
-90
9-10
810
7-63
1
HIGH ARCTIC WEST2 ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....

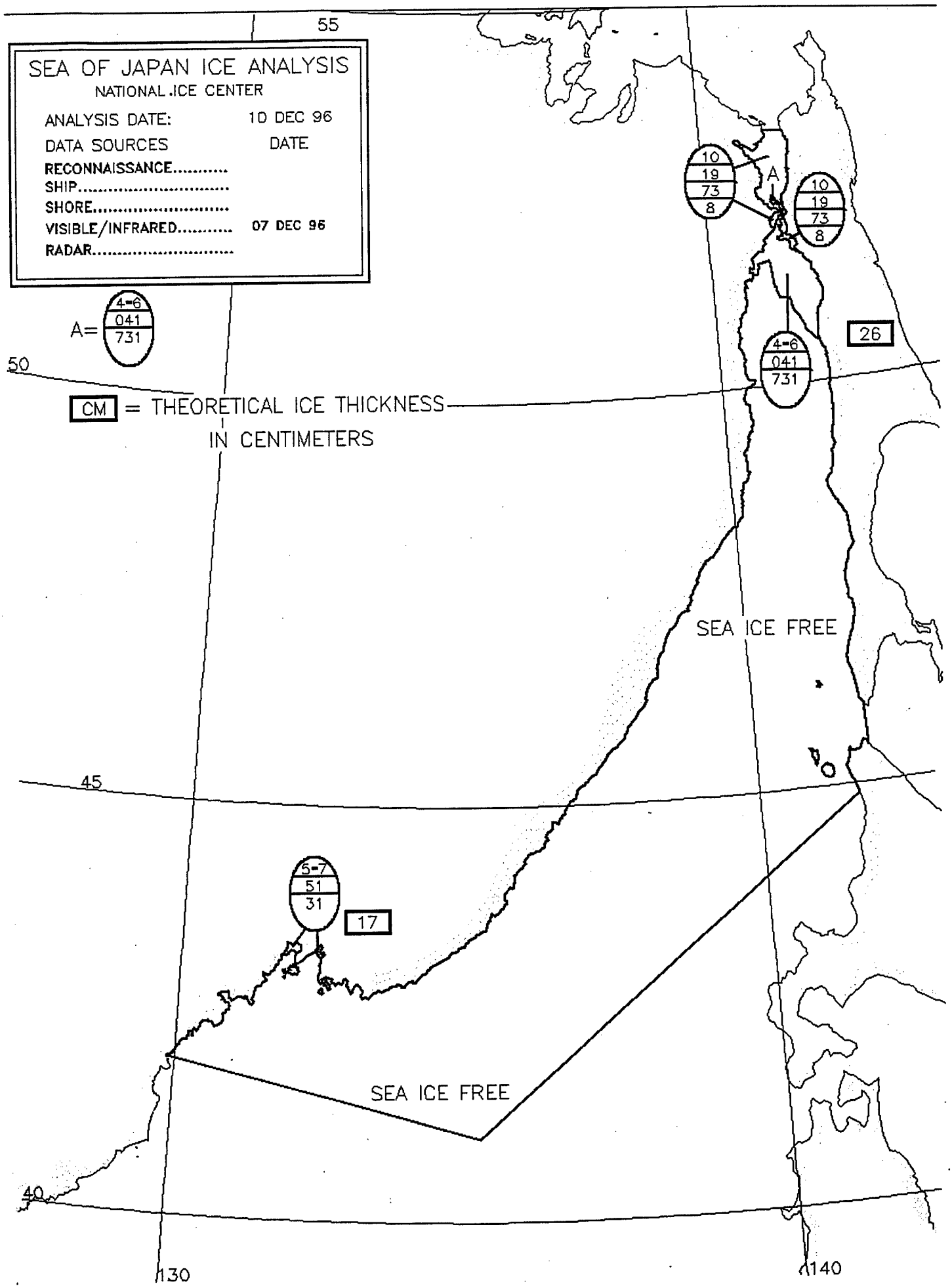

SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 05 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....
RADAR.....
55
50
45
40
130
140
8-10
63
31
3-5
04
31
SEA ICE FREE

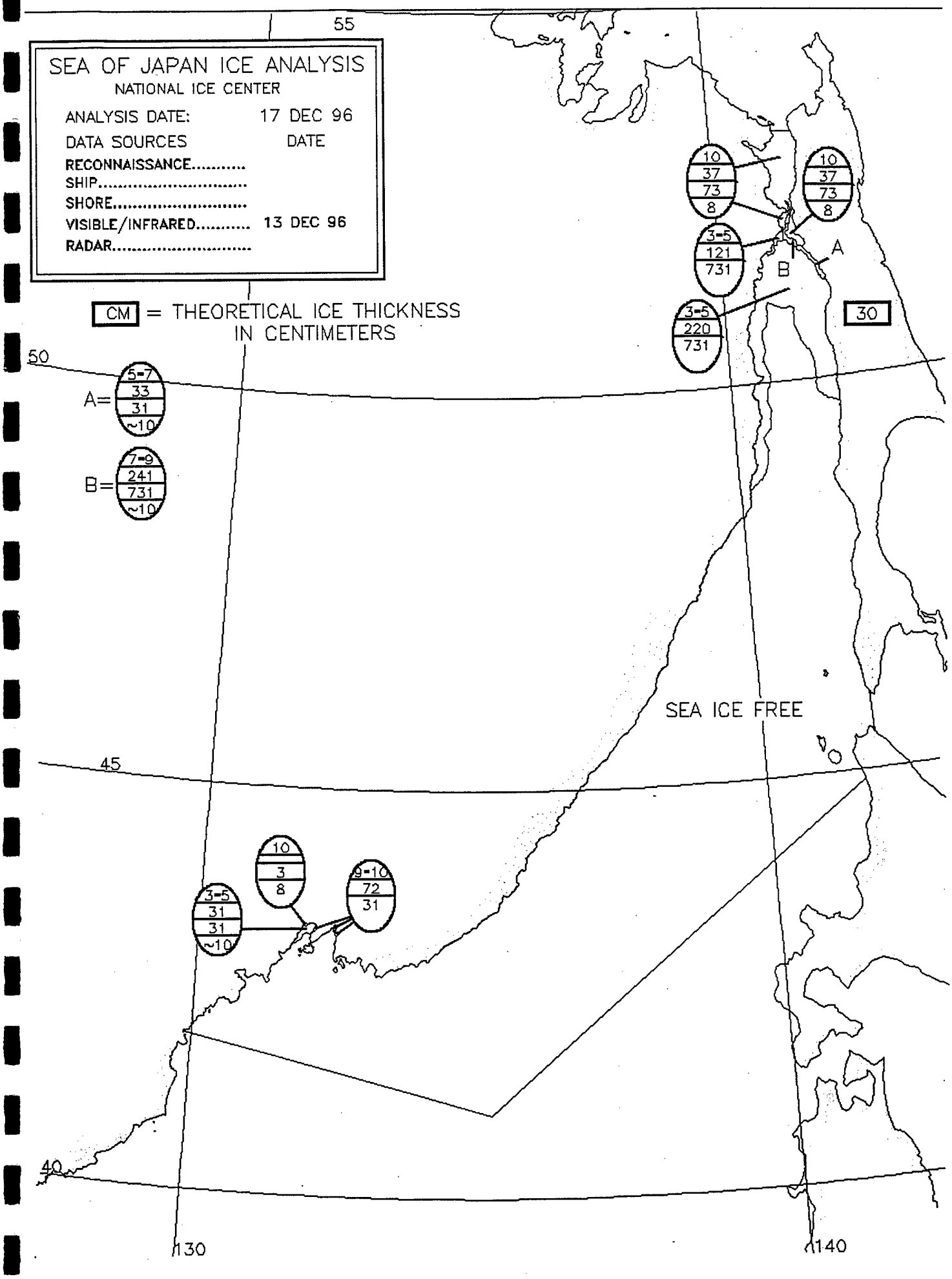

SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 12 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 12 NOV 96
RADAR.....
55
50
45
40
130
140
SEA ICE FREE
SEA ICE FREE
3-5
22
31
9-10
72
31
7-9
44
31
7-9
44
31
3-5
22
31

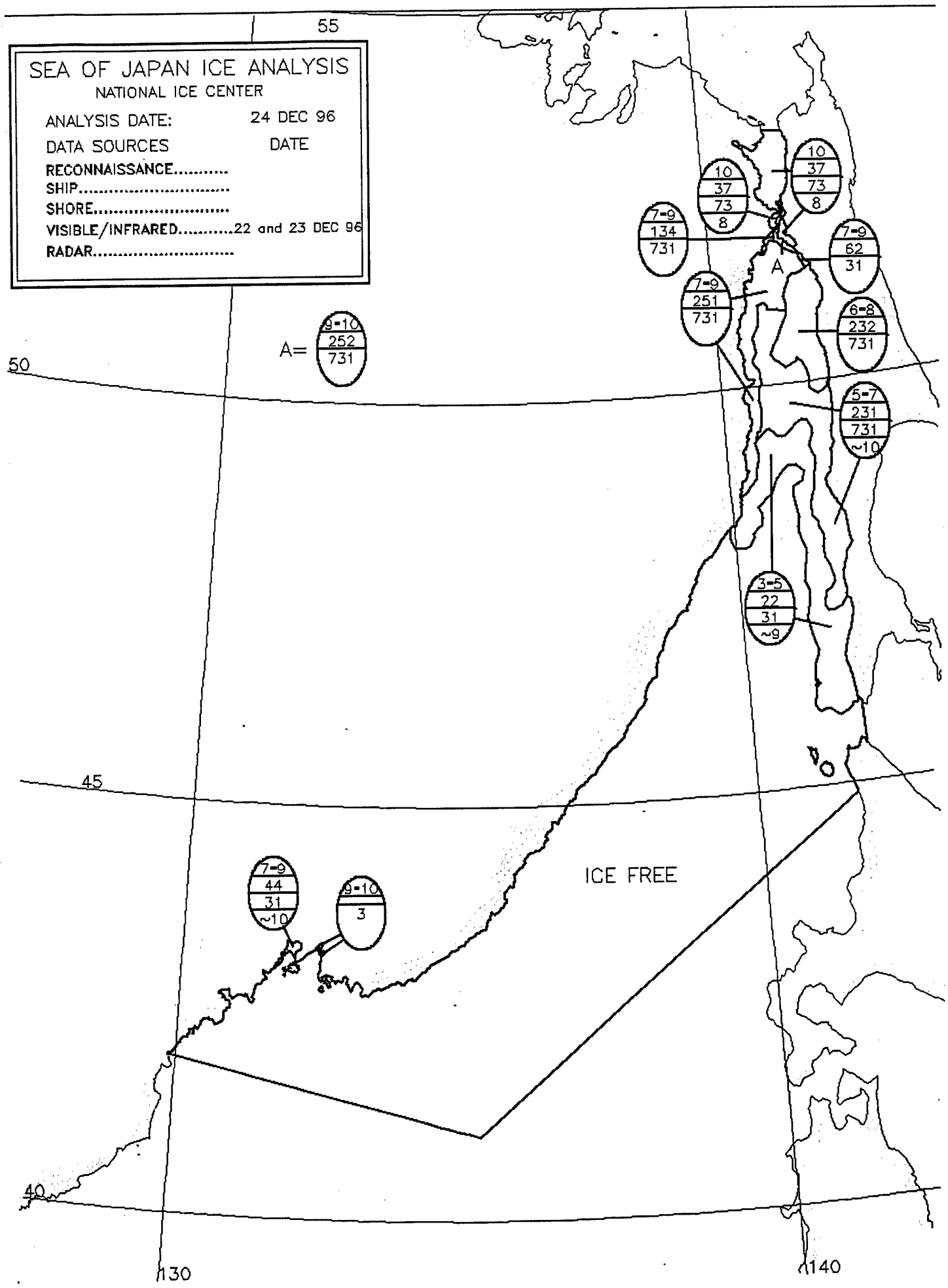

SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 19 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 17-18 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
55
50
45
40
130
140
10
19
73
9-10
3
2-4
12
31
3-5
3
5
SEA ICE FREE

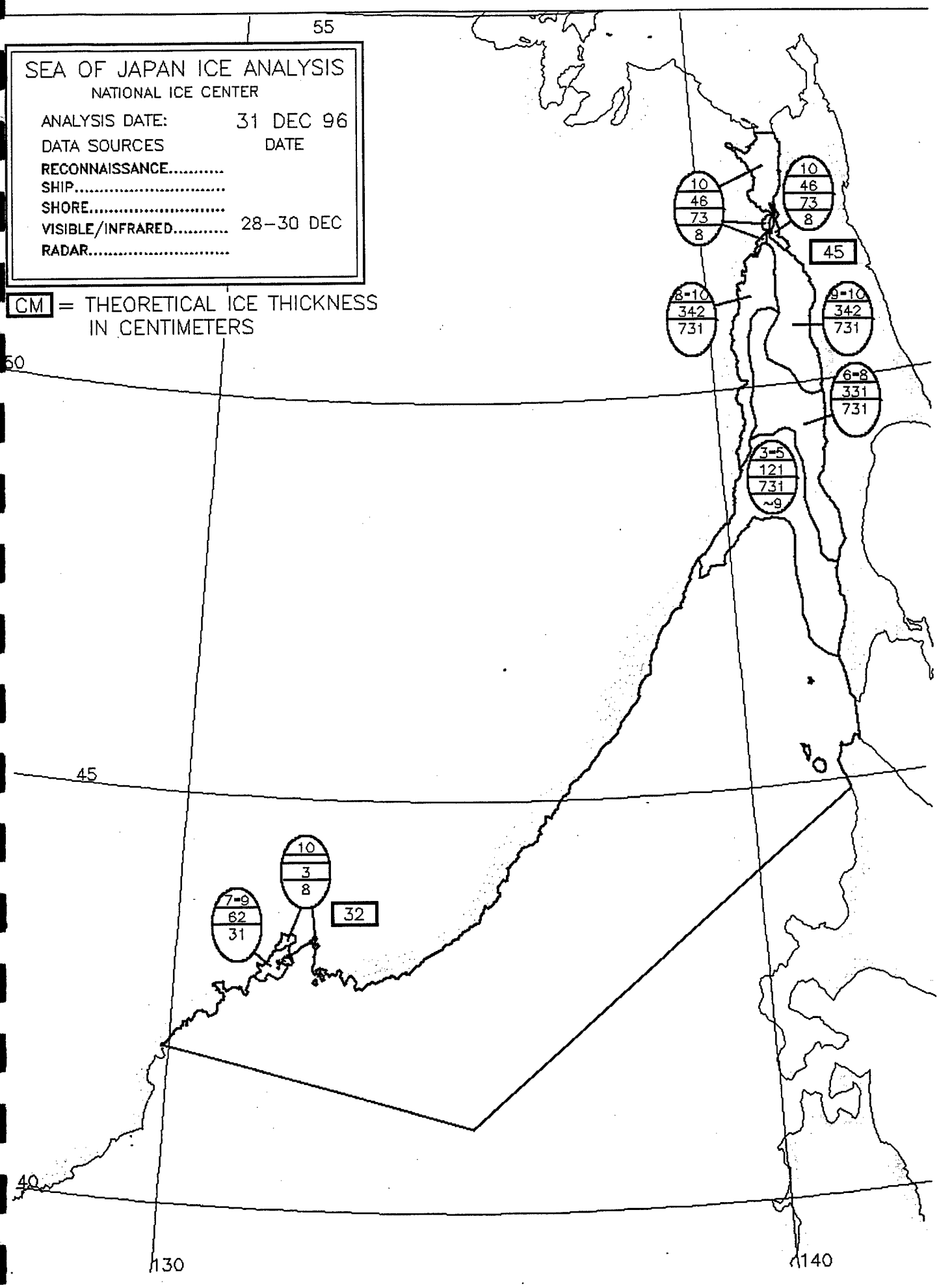

SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 26 NOV 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 26 NOV 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 9-10 / 90 / 31
B= 10 / 19 / 73
C= 10 / 91 / 31
D= 7-9 / 53 / 31
55
50
45
40
130
140
SEA ICE FREE
B
D
C
A
A
C
C
3-5 / 22 / 31
17
3-5 / 3
5


SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 3 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 2–3 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
55
50
45
40
130
140
SEA ICE FREE
9-10
153
731
10
190
731
10
190
731
4-6
32
31
19
4-6
41
31
10


SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 10 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 07 DEC 96
RADAR.....
A= 4-6 / 041 / 731
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
55
50
45
40
130
140
10 / 19 / 73 / 8
A
10 / 19 / 73 / 8
26
4-6 / 041 / 731
5-7 / 51 / 31
17
SEA ICE FREE
SEA ICE FREE


SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 17 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 13 DEC 96
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
A= 5-7 / 33 / 31 / ~10
B= 7-9 / 241 / 731 / ~10
10 / 37 / 73 / 8
10 / 37 / 73 / 8
3-5 / 121 / 731
3-5 / 220 / 731
A
B
30
SEA ICE FREE
10 / 3 / 8
9-10 / 72 / 31
3-5 / 31 / 31 / ~10
55
50
45
40
130
140


SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 24 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED.....22 and 23 DEC 96
RADAR.....
55
50
45
40
130
140
A= 9-10 / 252 / 731
10 / 37 / 73 / 8
10 / 37 / 73 / 8
7-9 / 134 / 731
7-9 / 62 / 31
A
7-9 / 251 / 731
6-8 / 232 / 731
5-7 / 231 / 731 / ~10
3-5 / 22 / 31 / ~9
7-9 / 44 / 31 / ~10
9-10 / 3
ICE FREE


SEA OF JAPAN ICE ANALYSIS
NATIONAL ICE CENTER
ANALYSIS DATE: 31 DEC 96
DATA SOURCES DATE
RECONNAISSANCE.....
SHIP.....
SHORE.....
VISIBLE/INFRARED..... 28-30 DEC
RADAR.....
CM = THEORETICAL ICE THICKNESS IN CENTIMETERS
55
50
45
40
130
140
10
46
73
8
45
8-10
342
731
9-10
342
731
6-8
331
731
3-5
121
731
~9
10
3
8
32
7-9
62
31

From	To	Sensor Platform	Sensor and Type	Spectral Region	Resolution	Coverage
01-96	12-96	DMSP F-10, 11, 12, 13	OLS Fine: VIS IR SSM/I	0.4 to 1.1 μm 10.2 to 12.8 μm 19.35 and 37GHz	0.55 km 25 km	3,012km 3,012km
01-96	12-96	NOAA 12, 14	AVHRR: HRPT/LAC VIS NrIR IR	0.58 to 0.68 μm 0.72 to 1.10 μm 3.55 to 3.93μm	1.1km at nadir; 2.5km at swath edge	4,000km
01-96	12-96	RADARSAT	AMI SAR	C- Band (5.3 Ghz)	100km	500km

TABLE 1. 1996 Arctic Satellite Data Sources

Abbreviations and Acronyms:

AMI- Active Microwave Sensor
AVHRR- Advanced Very High Resolution Radiometer
cm- centimeter
ERS- Earth Remote Sensing Satellite
GHz- GigaHertz
HRPT- High Resolution Picture transmission
IR- Infrared
km- kilometer
LAC- Local Area Coverage
NIR- Near Infrared
OLS- Operational Linescan System
RADARSAT- Radar Satellite
SAR- Synthetic Aperture Radar
SSM/I- Special Sensor Microwave Imager
μm- micrometer
VIS- Visible
RADARSAT- Radar Satellite
SAR- Synthetic Aperture Radar

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