

## 1976 Eastern Bering Sea King Crab Survey

The eastern Bering Sea king crab survey is conducted to provide technical information on the condition of the stocks needed by agencies which allocate the catch among fishing interests. This technical information is used to determine yearly changes in stock abundance and composition due to foreign and domestic fishing, and environmental changes. An additional use for the survey data is as an aid to fishermen and processors in determining productive areas and general availability of crabs from year to year. This report is directed toward this use and is intended to provide useful information on abundance and distribution of king crabs, as determined by the 1976 survey conducted in the eastern Bering Sea by the NOAA RV Oregon.

### Survey Area and Methods

The area covered by the 1976 survey includes the region from inner Bristol Bay west to the Pribilofs and, in the north-south direction, from Unimak Island to Cape Newenham. This area is shown in the accompanying charts in which survey station locations are indicated by numbers or symbols. At these station locations, which are approximately 20 miles apart, a half-hour trawl haul was made with a 400-mesh Eastern otter trawl. The net is constructed of 3 1/2-inch web throughout and has a 1 1/2-inch codend liner. There are 15 8-inch floats on the headrope, a weighted chain footrope, 15 fathom dandyines and 10 fathom bridles. The doors used were Astoria "V" type, measuring 6 X 9 feet. During each tow bottom profiles and traces in the water were recorded with an echosounder. At the end of each haul a surface-to-bottom water temperature profile was obtained with an XBT probe. The catch of crabs was then separated from groundfish and data such as numbers caught, size, sex, shell condition, and egg condition were recorded.

After the cruise was completed, the data were processed to provide stock size estimates and distribution over the survey area. Crab stock estimates were obtained for each station by calculating the numbers caught per square nautical mile trawled, and expanding this figure to the 20 X 20 mile area where the station is located. The estimate for the total stock in the area is made by adding the estimates for all stations. Distribution of crabs is denoted in the following charts in two ways: (1) by numbers caught per half-hour haul, and (2) by symbols indicating numbers caught per square nautical mile trawled. A questionnaire is provided at the end of this report so that you may express your preference on these two types of charts, as well as on other aspects of the report.



## Survey Results

In 1976 186 trawl hauls were made by the NOAA RV Oregon from 29 May to 9 August. King crabs were encountered in 136 of the hauls. This is a higher percentage than in past years and is due to the fact that two and sometimes more hauls were made in many of the station blocks on the king crab grounds.

The stock size estimates obtained from these hauls are shown in Table 1 for legal and pre-recruit red (P. camtschatica) and blue (P. platypus) king crabs. For all red king crabs, abundance appears to be up substantially from 1975 and the reason for this is unclear. It is possible that the increase represents an influx of crabs from outside the survey area. We know from data obtained during the 1975 Outer Continental Shelf Environmental Assessment Project (OCSEAP) survey that red king crabs occur outside our traditional survey area (Figure 1). Further analysis of these data will determine if abundance outside the survey area is sufficient to cause the increase noted.

Any theories advanced to account for the current increase depend on the reliability of the survey, which up to now appears to be adequate for legal red king crabs. Figure 2 shows the relationship between catch-per-pot lift from the fishery and Oregon abundance estimates from previous years. This indicates that through 1975 there has been good agreement between survey and fishing fleet data regarding current trends in abundance of legals. We hope to obtain further information on the validity of the survey estimates for legal red king crabs from the tagging experiment carried out in June and July of 1976 aboard the charter vessel Foremost. Tags returned during the 1976 season will allow an independent estimate of the abundance of legal crabs. We would like to stress that the more tags are turned in, the more accurate will be the estimate of the population.

The abundance of pre-recruit and legal blue king crabs is down substantially from 1975. However, not enough data is available on this species to make valid statements regarding trends in abundance. Figure 1 indicates that our survey has only recently covered the Pribilof Island stock and that additional areas of blue king crabs exist further north. However, preliminary results from the OCSEAP survey indicate that the Pribilof area accounts for about 80% of all blue king crabs surveyed from 55° to 62°N.

The 1976 summer distribution of red king crabs is shown in Charts 1-4. As in 1975, the highest catches of legal crabs were made north of Unimak Island (Chart 1). Pre-recruits were most abundant just north of the outer Alaska Peninsula (Chart 2). Legal crabs made up a higher proportion of the catches at the more northwesterly stations in the red king crab area (Chart 3) and skipmolt males were most abundant at inshore stations (Chart 4).

The distribution of blue king crabs, limited to the Pribilof Island area, is shown in Charts 5-8. Legal crabs were more numerous between Saint Paul and Saint George

Islands (Chart 5), while pre-recruits were infrequently encountered (Chart 6). As in 1975, the proportion of legal crabs was highest at the edges of the blue king crab area (Chart 7) and percentages of skipmolts were low in general (Chart 8). Positions, catch data, depth, and bottom temperatures are presented for each station where king crabs were caught in Tables 2 and 3. Chart 9 shows the distribution of bottom temperatures in the survey area.

Table 1.--Population estimates in millions of crabs for eastern Bering Sea king crabs from NOAA/NMFS surveys.

RED KING CRABS

Year	Pre-recruits*	Legals*
1969	19.5	8.9
1970	8.4	5.3
1972	8.3	5.6
1973	25.9	10.9
1974	31.2	20.8
1975	29.6	17.6
1976	49.3	32.7

BLUE KING CRABS

1974	3.1	1.9
1975	8.0	7.5
1976	2.1	3.9

\* The size groups 5.0"-6.25" and over 6.25" have been used for pre-recruits and legals, respectively, for comparative purposes.

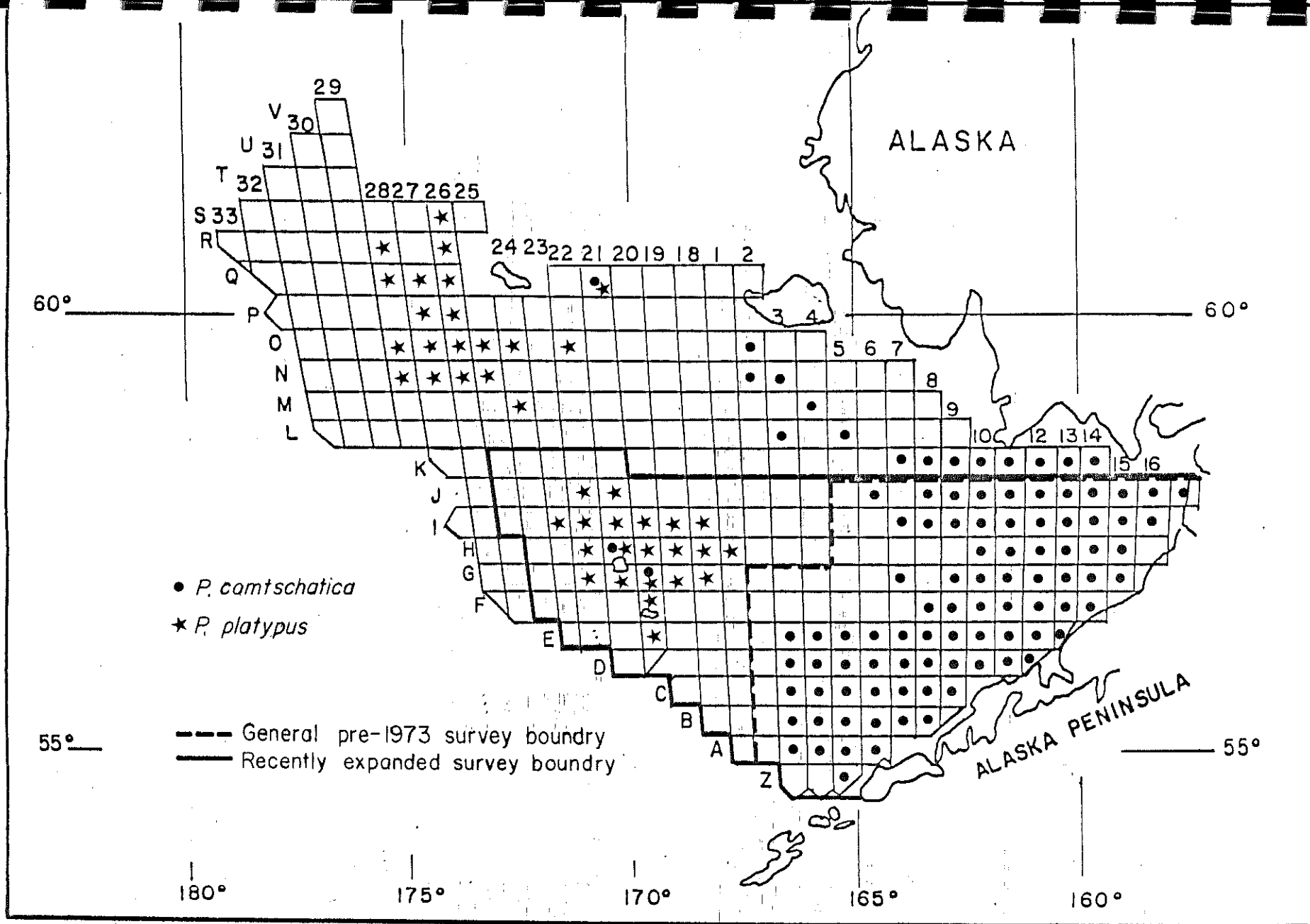


FIGURE 1 OCCURRENCE OF KING CRABS IN THE 1975 OCSEAP SURVEY.

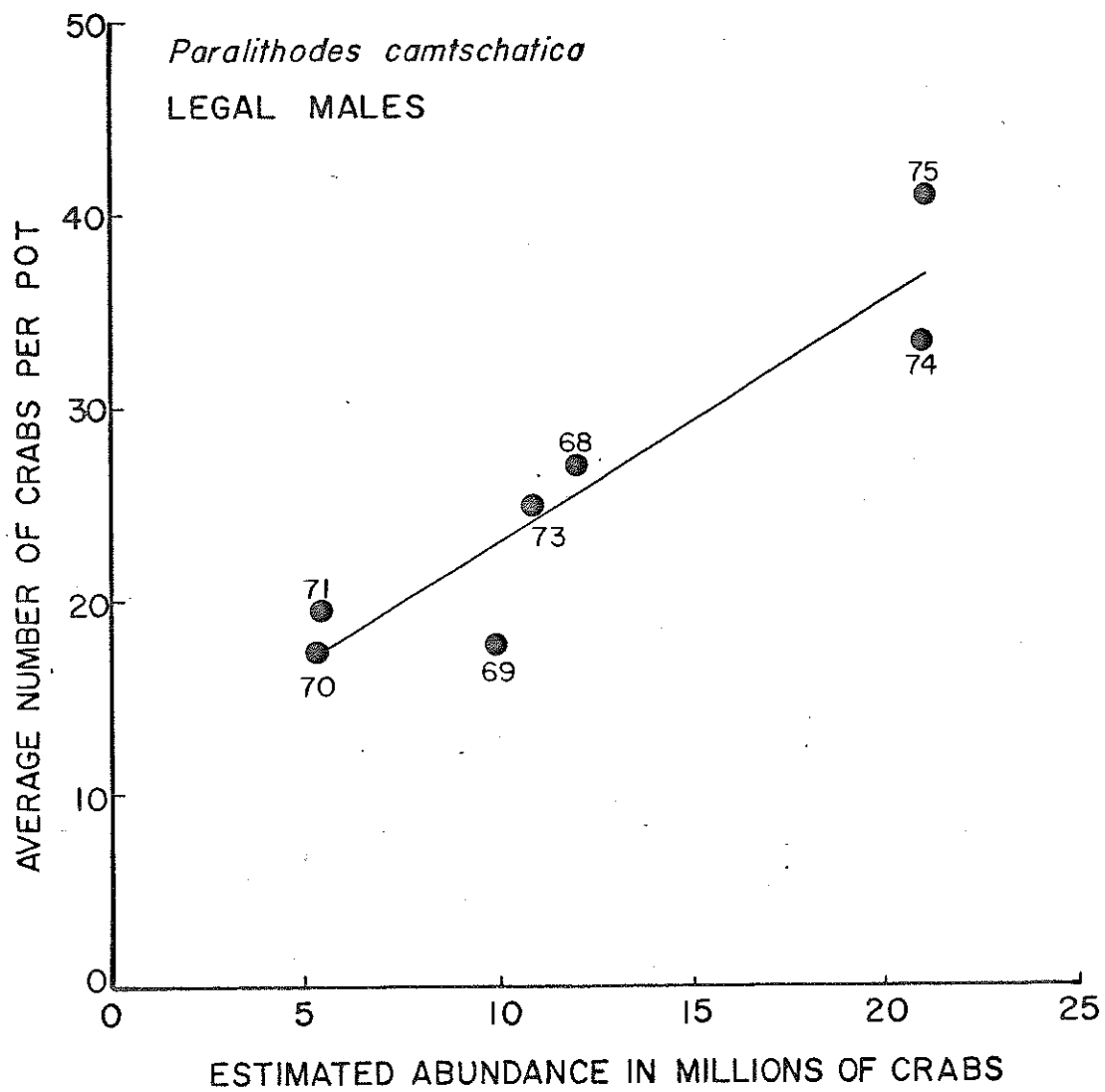


FIGURE 2 RELATIONSHIP BETWEEN AVERAGE CATCH PER POT (U.S. FISHERY) AND ABUNDANCE ESTIMATES.

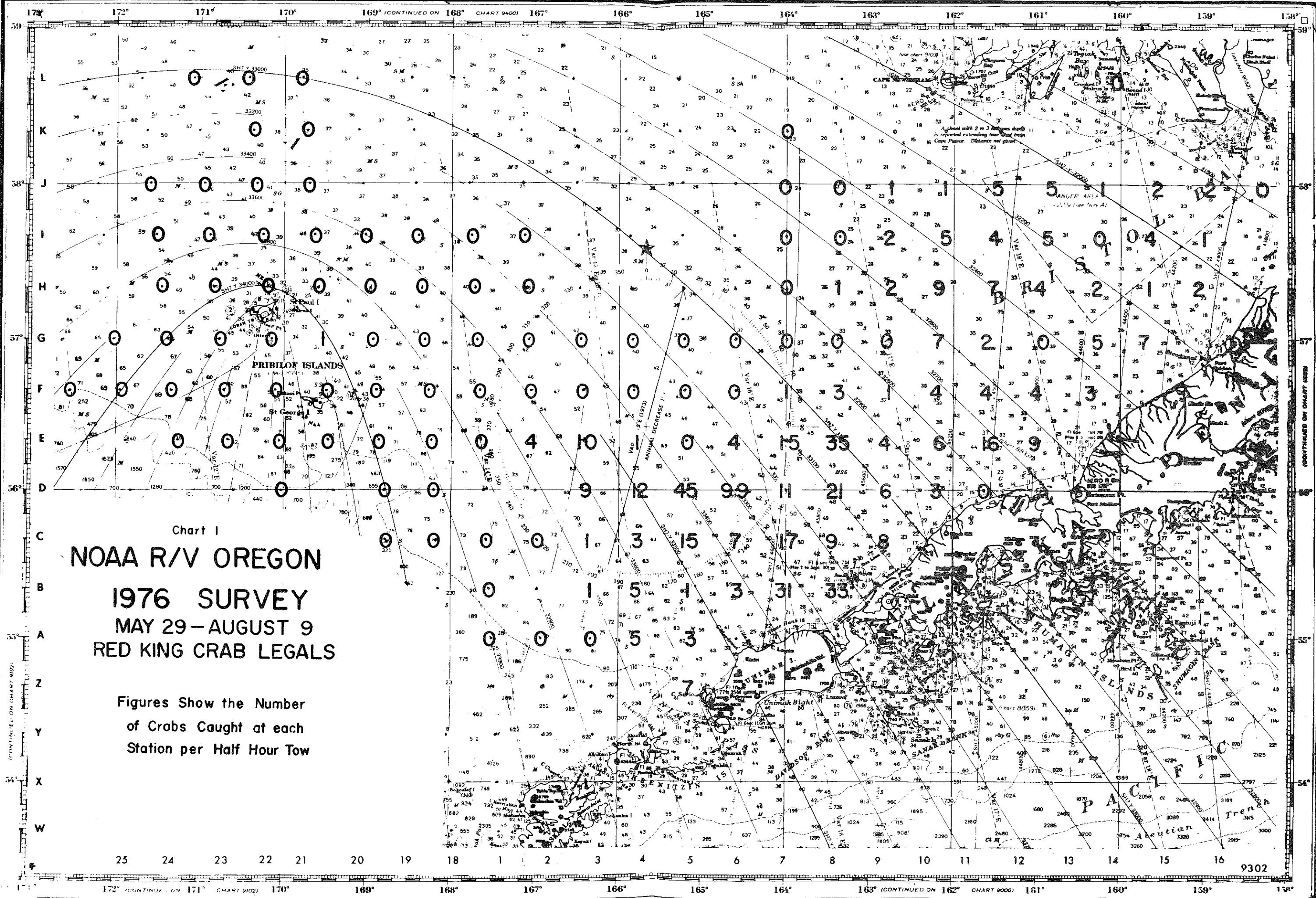


Chart 1  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**RED KING CRAB LEGALS**

Figures Show the Number  
of Crabs Caught at each  
Station per Half Hour Tow

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9001)

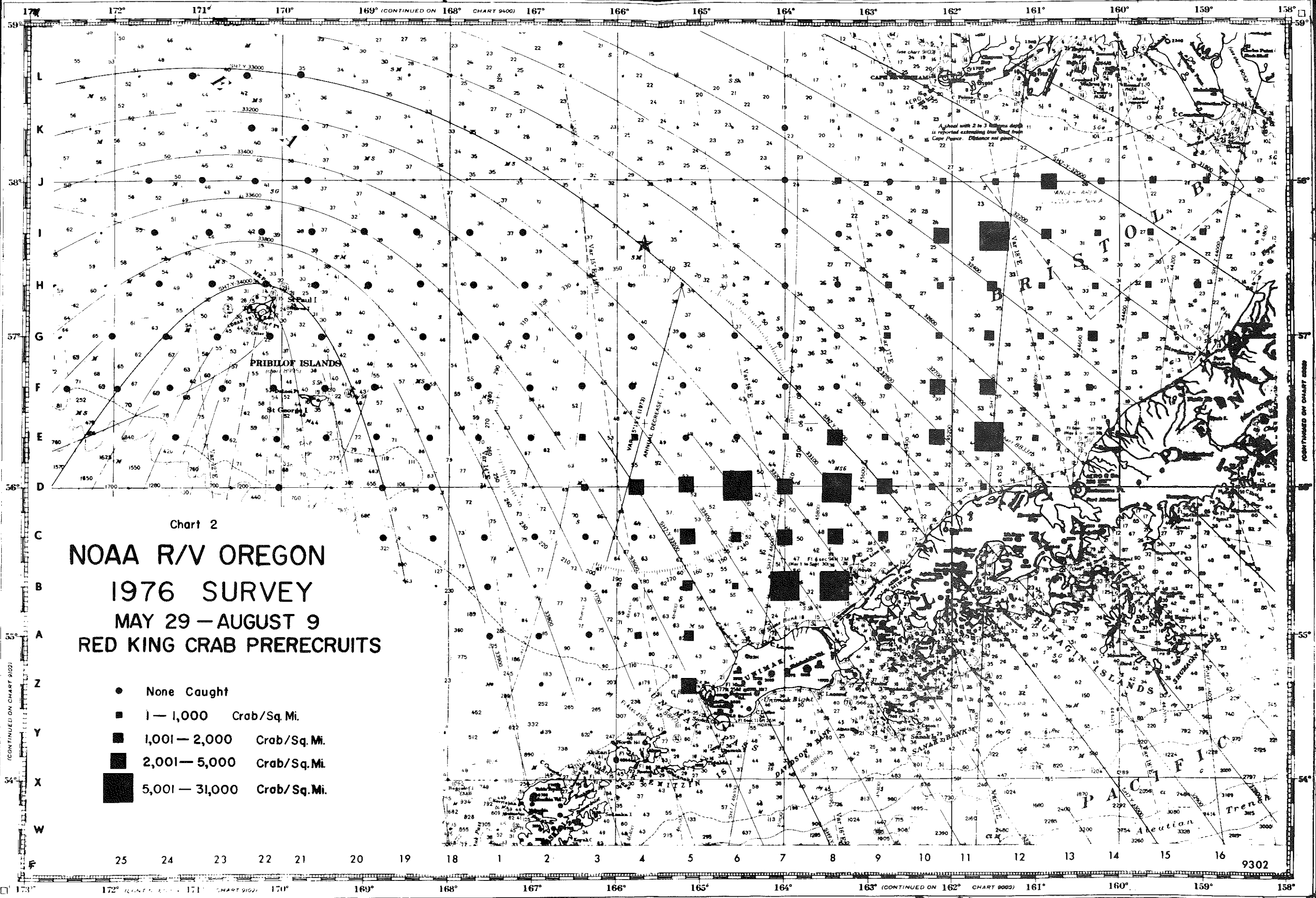


Chart 2  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**RED KING CRAB PRERECRITS**

- None Caught
- 1 - 1,000 Crab/Sq. Mi.
- 1,001 - 2,000 Crab/Sq. Mi.
- 2,001 - 5,000 Crab/Sq. Mi.
- 5,001 - 31,000 Crab/Sq. Mi.

(CONTINUED ON CHART 902)

(CONTINUED ON CHART 901)



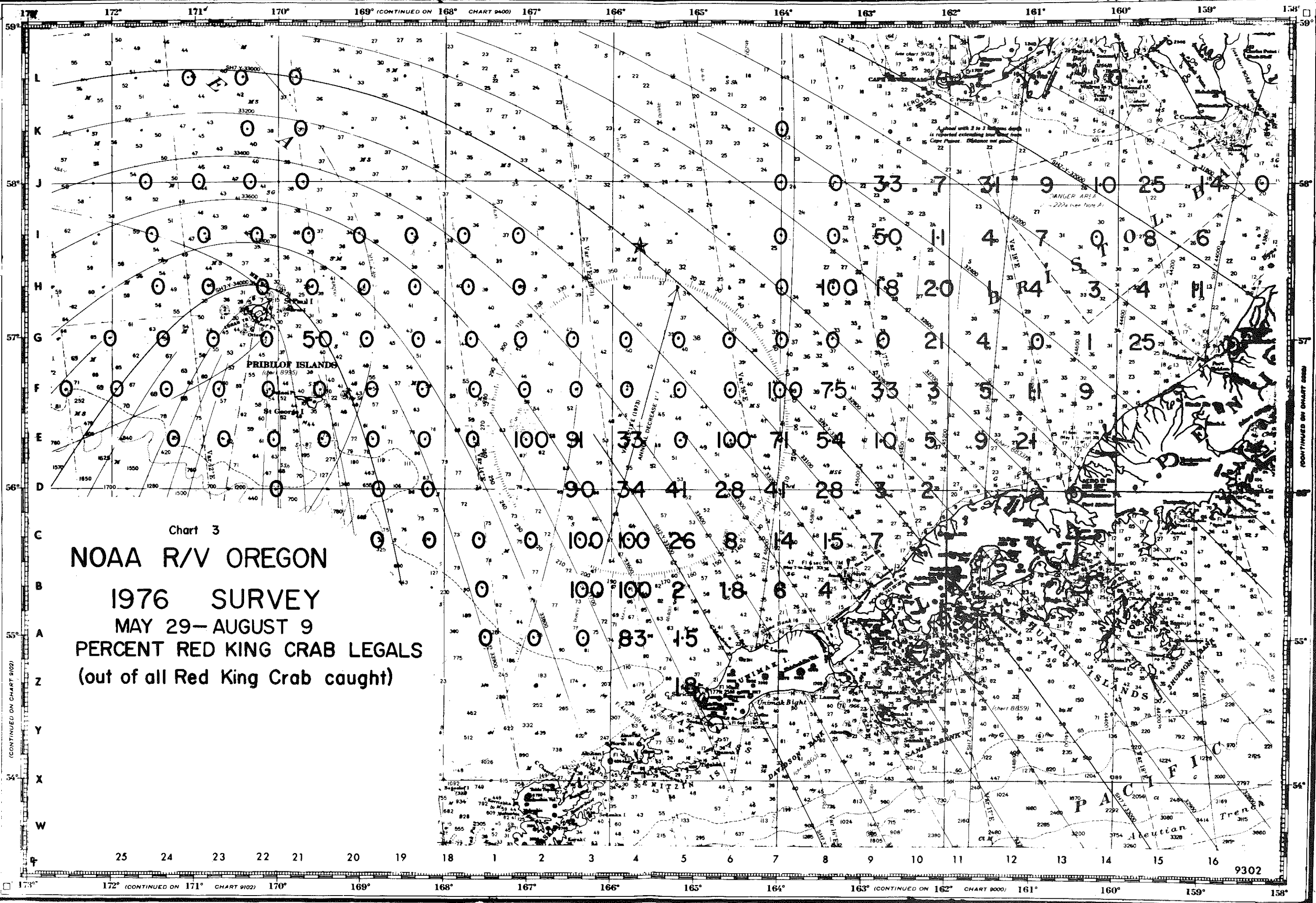


Chart 3  
NOAA R/V OREGON  
1976 SURVEY  
MAY 29 - AUGUST 9  
PERCENT RED KING CRAB LEGALS  
(out of all Red King Crab caught)

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9101)

25 24 23 22 21 20 19 18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 9302

172° (CONTINUED ON 171° CHART 9102) 170° 169° 168° 167° 166° 165° 164° 163° (CONTINUED ON 162° CHART 9000) 161° 160° 159° 158°

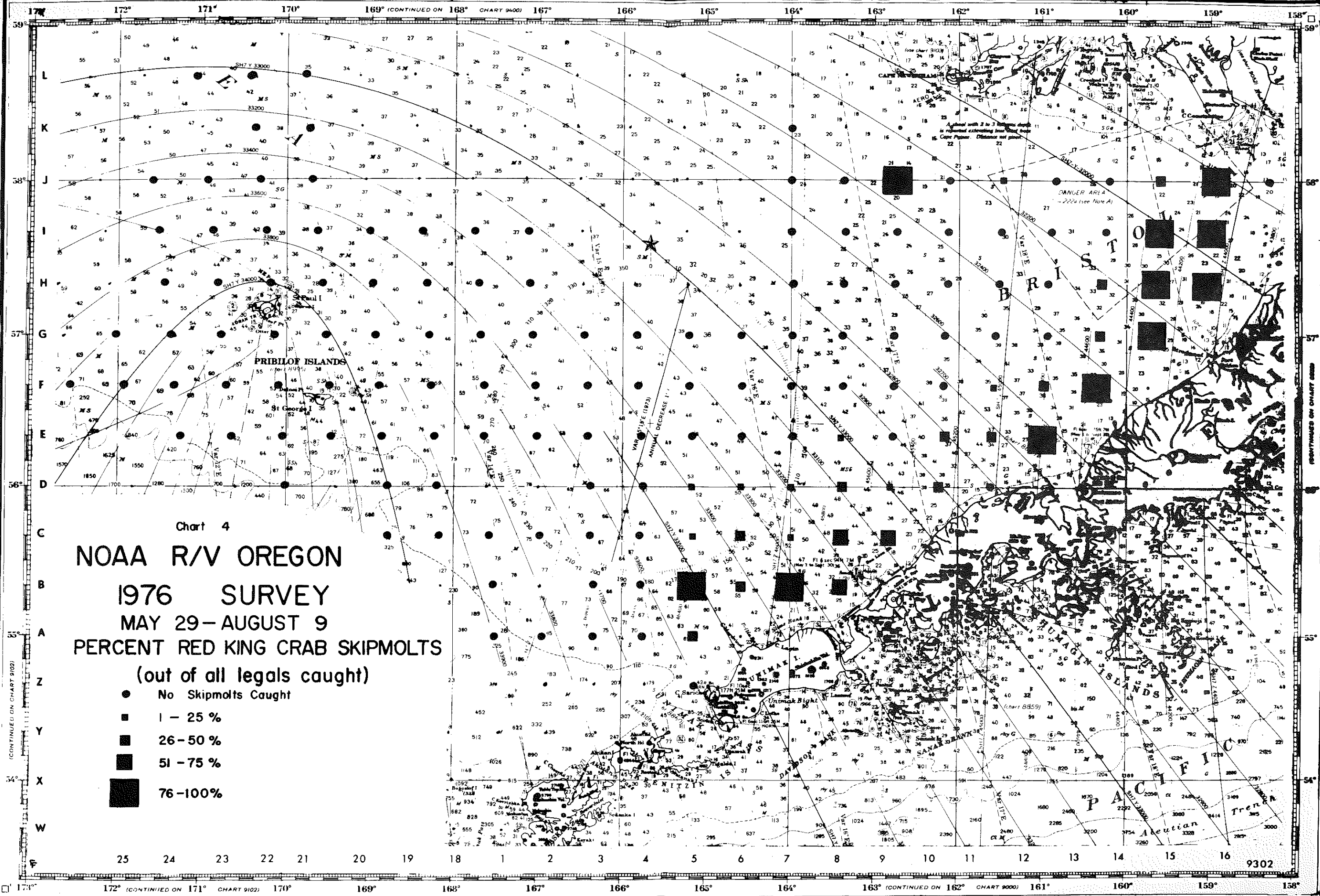


Chart 4  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**PERCENT RED KING CRAB SKIPMOLTS**

- (out of all legals caught)
- No Skipmolts Caught
  - ◻ 1 - 25 %
  - ◼ 26 - 50 %
  - ◼ 51 - 75 %
  - ◼ 76 - 100 %

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9101)

25 24 23 22 21 20 19 18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 9302

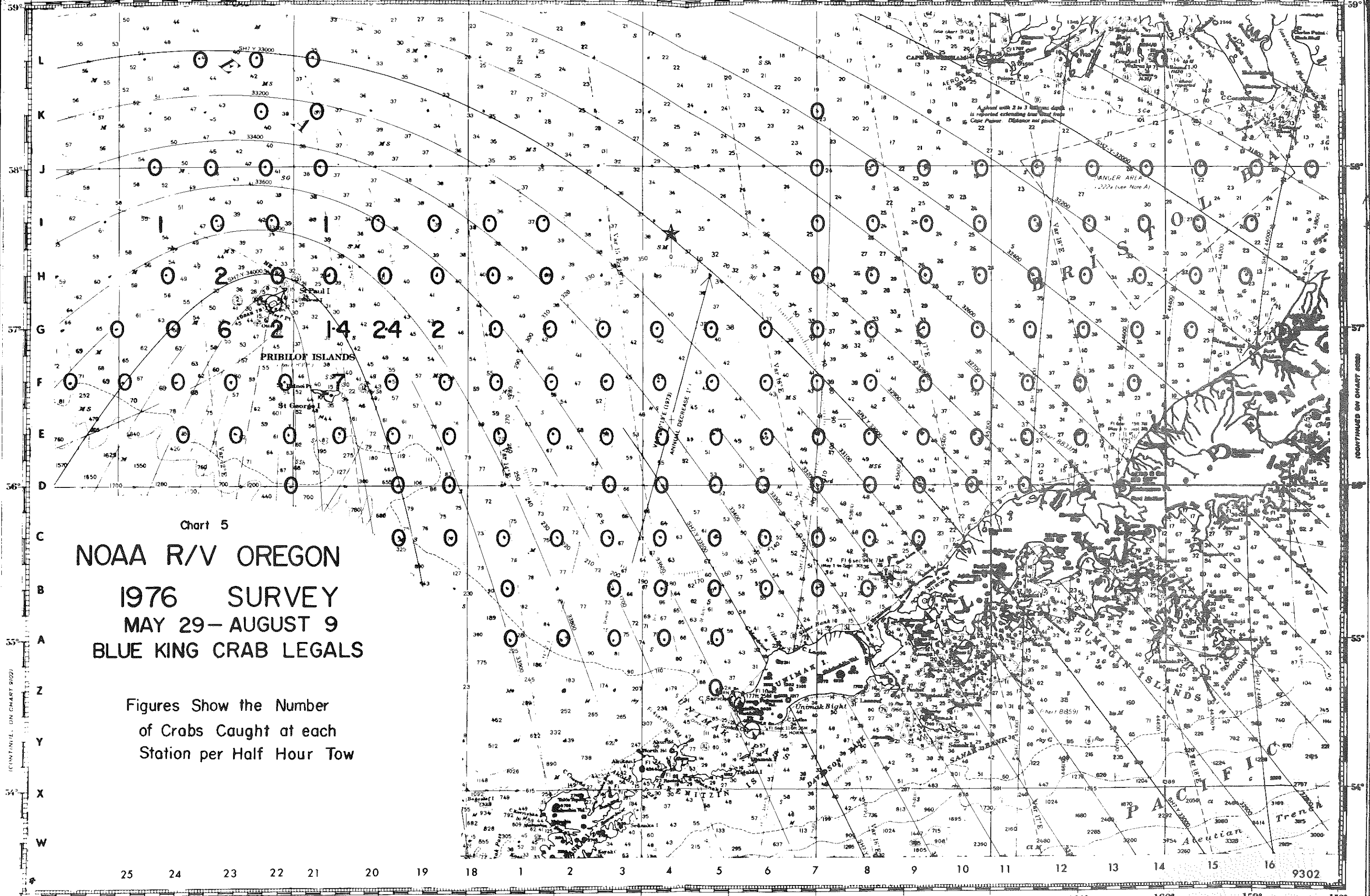


Chart 5  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**BLUE KING CRAB LEGALS**

Figures Show the Number  
 of Crabs Caught at each  
 Station per Half Hour Tow

(CONTINUE ON CHART 9102)

(CONTINUED ON CHART 9500)

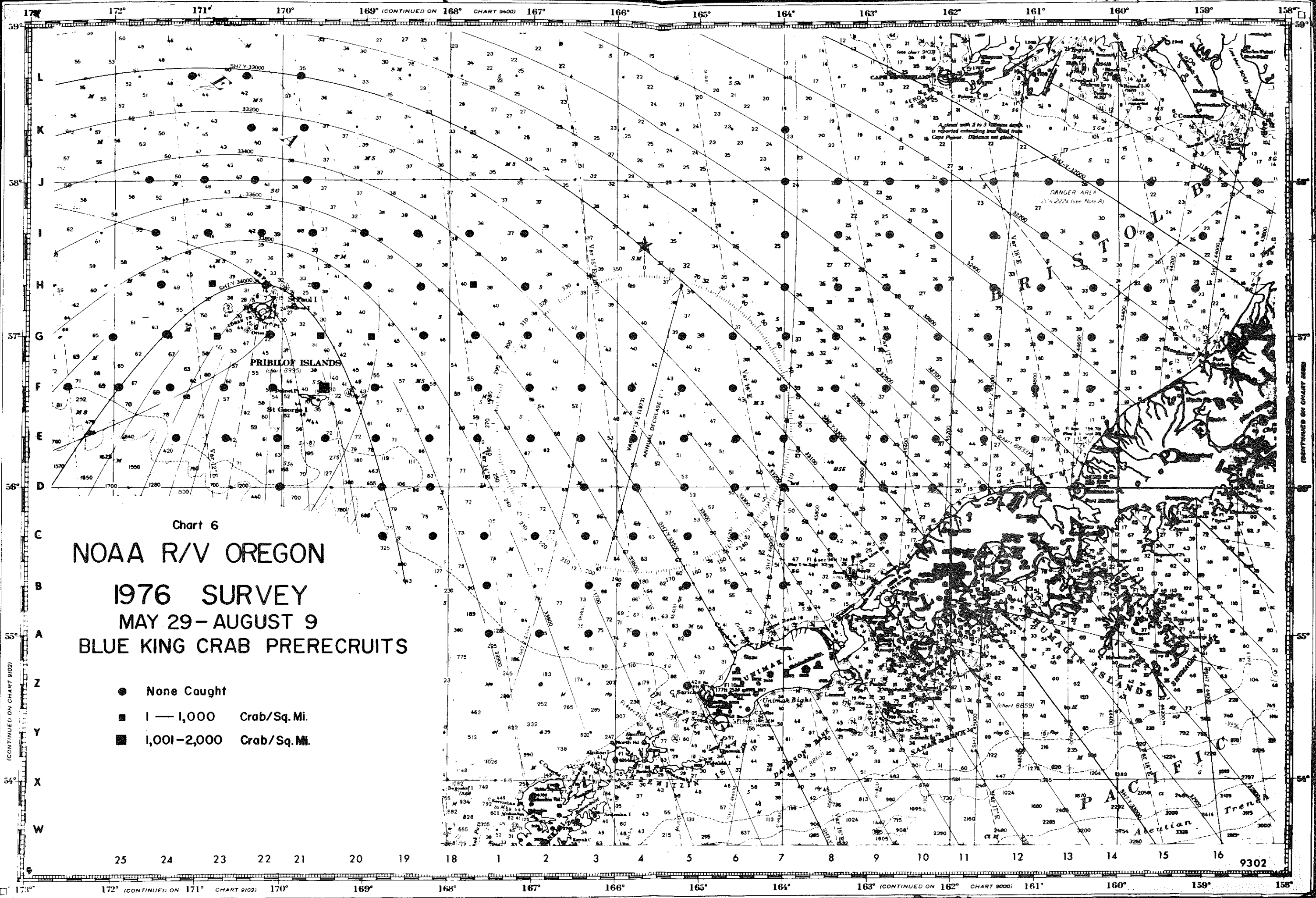


Chart 6  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**BLUE KING CRAB PRERECRITS**

- None Caught
- 1 - 1,000 Crab/Sq. Mi.
- 1,001 - 2,000 Crab/Sq. Mi.

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9101)

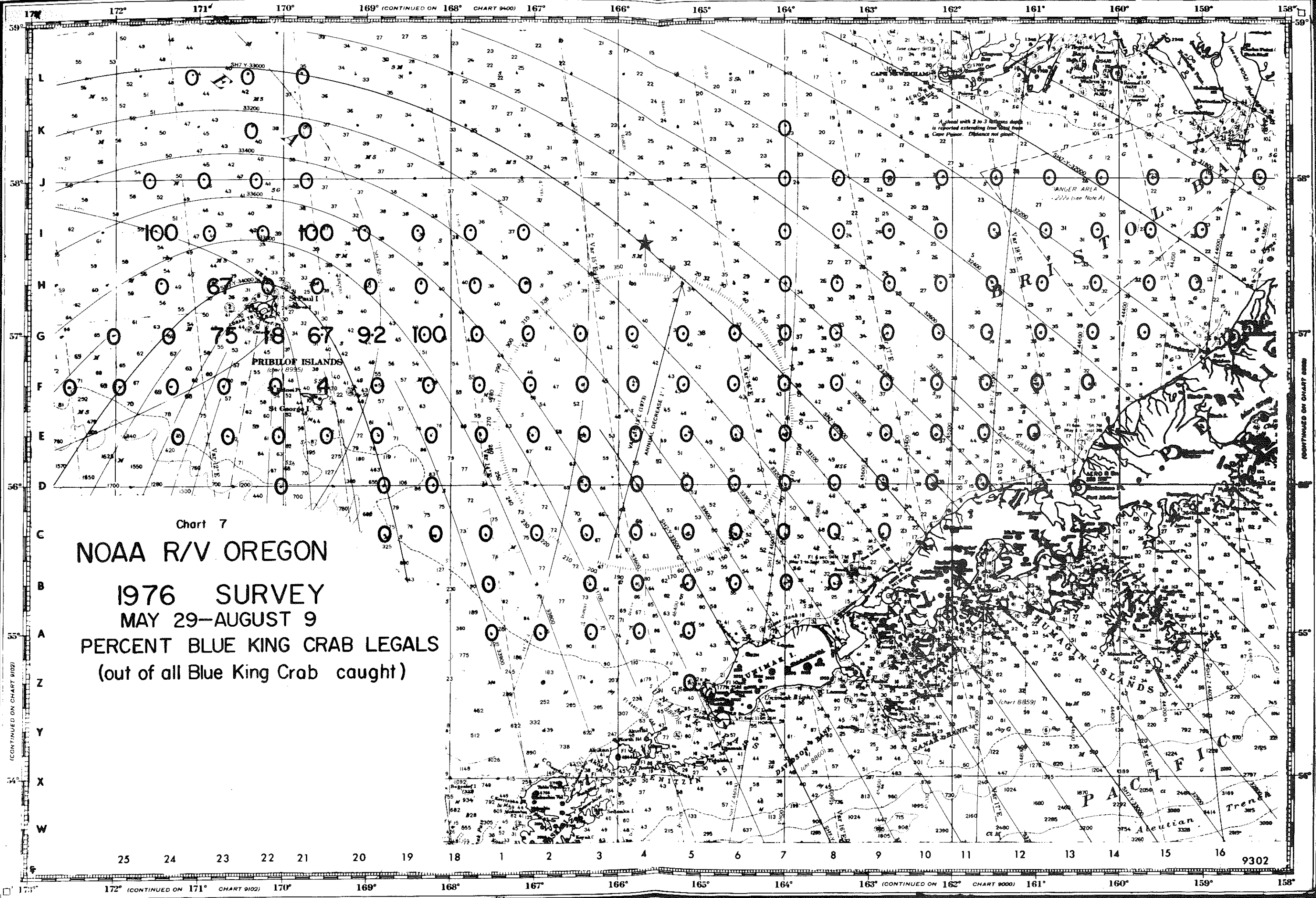


Chart 7  
NOAA R/V OREGON  
1976 SURVEY  
MAY 29-AUGUST 9  
PERCENT BLUE KING CRAB LEGALS  
(out of all Blue King Crab caught)

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9099)

25 24 23 22 21 20 19 18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 9302

172° (CONTINUED ON 171° CHART 9102) 170° 169° 168° 167° 166° 165° 164° 163° (CONTINUED ON 162° CHART 9000) 161° 160° 159° 158°

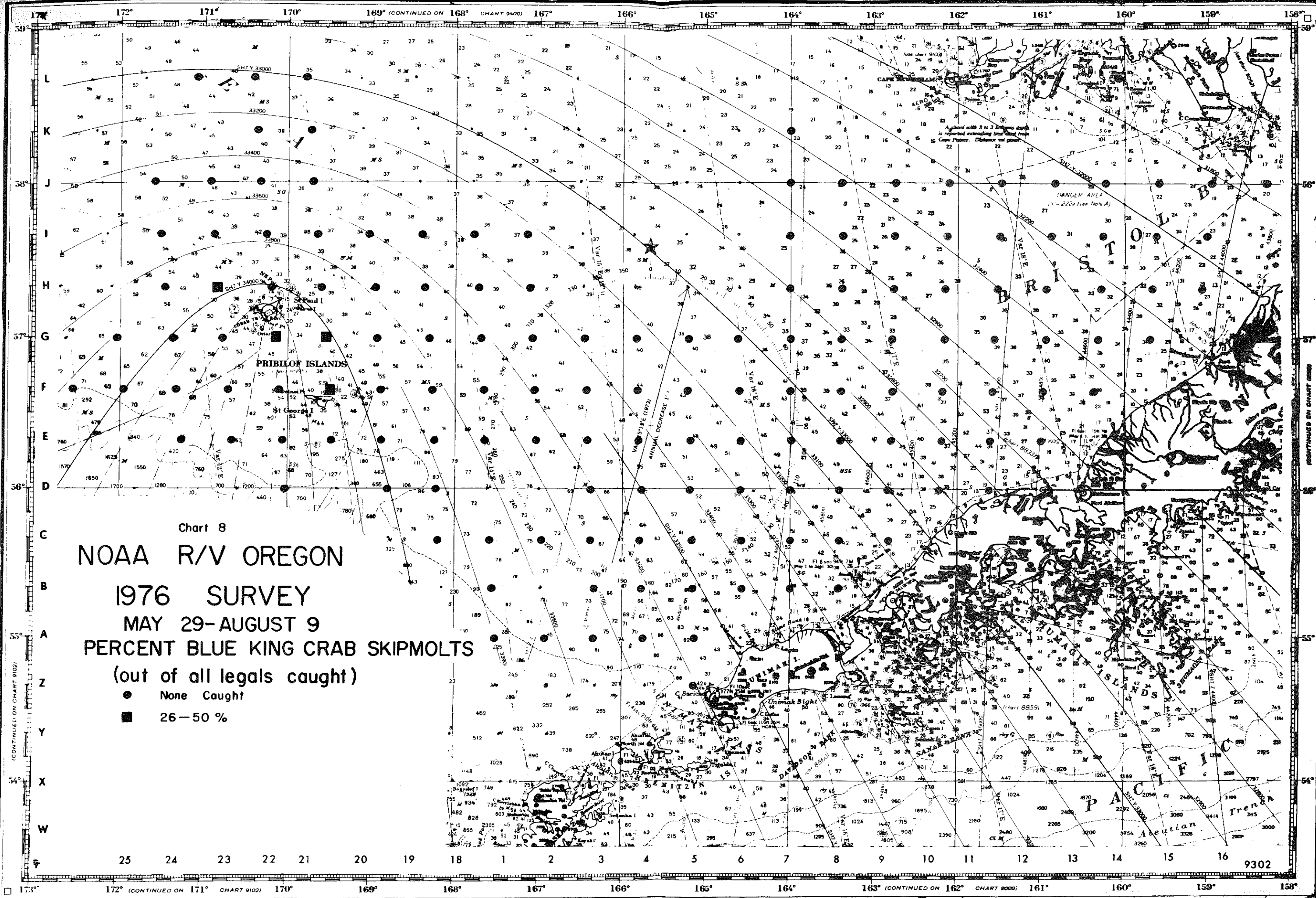


Chart 8  
NOAA R/V OREGON  
1976 SURVEY  
MAY 29-AUGUST 9  
PERCENT BLUE KING CRAB SKIPMOLTS  
(out of all legals caught)

- None Caught
- 26-50 %

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9101)

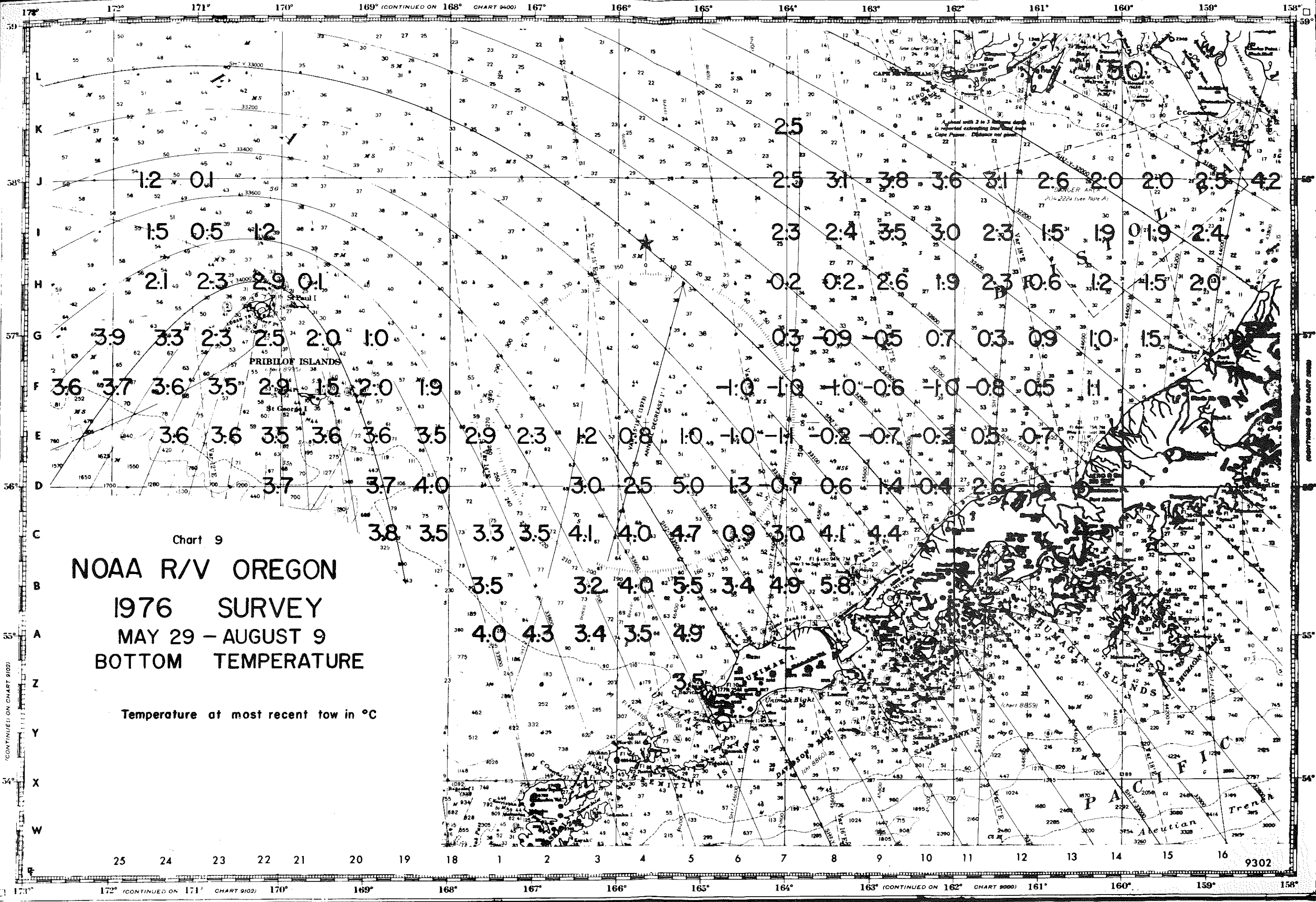


Chart 9  
**NOAA R/V OREGON**  
**1976 SURVEY**  
**MAY 29 - AUGUST 9**  
**BOTTOM TEMPERATURE**

Temperature at most recent tow in °C

25 24 23 22 21 20 19 18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 9302

(CONTINUED ON CHART 9102)

(CONTINUED ON CHART 9101)

172° (CONTINUED ON 171° CHART 9102) 170° 169° 168° 167° 166° 165° 164° 163° (CONTINUED ON 162° CHART 9100) 161° 160° 159° 158°

TABLE 2. RED KING CRAB (*P. CAMTSCHATICA*), 1976 EASTERN BERING SEA. NUMBERS OF PRE-RECRUITS AND LEGALS CAUGHT PER AREA TRAWLED, PLUS OTHER SURVEY DATA BY STATION. PRE-RECRUITS, 5 TO 6.5 INCHES, LEGALS, OVER 6.5 INCHES.

STATION	DATE	POSITION			DEPTH (FMS)	ROT. TEMP. (C)	PRE-RECRUITS		LEGALS		
		LAT	LONG	LORAN C			NOS/ SQMI	NOS/ SQMI	PRCNT SKIPS	PRCNT LEGAL	
A04	5/30/76	55-03	165-47	Y33655	Z45573	70	3.5	56	1255	0	95
A04	5/30/76	55-01	165-47	Y33656	Z45562	70	3.5	0	198	0	100
A04	5/30/76	55-00	165-44	Y33652	Z45545	69		0	139	0	100
A04	5/30/76	55-00	165-40	Y33642	Z45520	68		0	139	0	100
A05	5/30/76	55-00	165-10	Y33569	Z45342	58	3.5	983	536	0	32
A05	5/06/76	55-00	165-11	Y33572	Z45348	59	3.1	1773	507	2	18
A05	5/06/76	55-01	165-10	Y33568	Z45329	59		2280	0	0	0
A05	5/06/76	55-02	165-03	Y33558	Z45332	59		750	233	50	18
A05	5/06/76	55-03	165-05	Y33551	Z45320	59		139	0	0	0
A05	5/09/76	55-00	165-09	Y33566	Z45326	58	4.9	1976	760	3	9
P03	7/05/76	55-19	163-22	Y33704	Z45927	70	3.2	0	152	0	100
P04	6/21/76	55-20	163-47	Y33613	Z45604	63	4.0	0	507	0	100
P05	5/15/76	55-21	163-12	Y33515	Z45393	60	3.5	1621	0	0	0
P05	8/01/76	55-20	163-11	Y33516	Z45392	59	3.5	1393	233	30	3
P05	5/31/76	55-20	164-35	Y33426	Z46153	54	3.0	380	380	0	33
P05	5/06/76	55-18	164-38	Y33438	Z46170	55		101	101	0	17
P05	6/06/76	55-19	164-36	Y33429	Z46158	54	1.9	175	58	0	17
P05	6/06/76	55-22	164-32	Y33413	Z46141	54		2532	507	67	23
P05	5/07/76	55-23	164-32	Y33411	Z46144	54		1064	455	17	25
P05	5/07/76	55-22	164-37	Y33423	Z46170	55		829	138	100	10
P05	8/01/76	55-20	164-35	Y33421	Z46155	54	3.4	387	507	75	9
P07	5/09/76	55-21	164-01	Y33335	Z45940	40	2.6	29671	11941	87	5
P07	8/01/76	55-12	164-00	Y33358	Z45919	23	5.9	362	239	80	4
P07	8/01/76	55-13	164-00	Y33355	Z45919	29		380	380	100	4
P07	3/02/76	55-13	164-00	Y33337	Z45921	39	5.2	490	294	43	4
P07	8/02/76	55-20	164-00	Y33335	Z45932	40		633	633	90	5
P07	8/02/76	55-23	164-00	Y33324	Z45935	49	3.7	4342	1013	43	6
P07	8/02/76	55-24	164-00	Y33322	Z45937	48		2040	1520	30	6
P08	8/05/76	55-21	163-24	Y33240	Z45704	26	5.9	10636	4173	64	4
P03	7/05/76	55-39	163-22	Y33562	Z46873	68	3.4	0	66	0	100
P04	5/21/76	55-40	163-43	Y33564	Z46656	62	3.1	0	609	0	100
P04	7/31/76	55-40	163-43	Y33564	Z46657	62	4.0	0	132	0	100
P05	6/14/76	55-41	163-10	Y33458	Z46424	58	2.3	6535	2898	0	31
P05	8/09/76	55-39	163-09	Y33461	Z46414	57	4.7	1900	1140	7	24
P05	5/31/76	55-40	164-35	Y33351	Z46184	53	1.1	9257	299	0	5
P05	5/07/76	55-35	164-43	Y33400	Z46235	54		1343	633	0	21
P05	6/07/76	55-39	164-33	Y33373	Z46206	52		1033	304	20	20
P05	6/07/76	55-40	164-32	Y33354	Z46174	51		304	304	50	44
P05	6/09/76	55-40	164-30	Y33346	Z46159	51		353	1103	33	30
P05	6/09/76	55-40	164-27	Y33340	Z46141	51		2230	1366	0	30
P05	8/09/76	55-40	164-37	Y33334	Z46201	51	3.9	2333	1534	2	4
P07	5/31/76	55-40	164-00	Y33262	Z45963	51	1.4	1153	0	0	0
P07	5/08/76	55-40	164-06	Y33282	Z45934	50	1.6	2131	1173	18	15
P07	5/08/76	55-38	164-02	Y33277	Z45970	51		1599	333	0	13
P07	5/08/76	55-38	163-37	Y33264	Z45941	51		1393	633	0	23



TABLE 2. CONTINUED

STATION	DATE	POSITION		DEPTH (FMS)	ROT. TEMP. (C)	PRE-RECRUITS		LEGALS		
		LAT	LONG			LORAN C	NOS/ SQMI	NOS/ SQMI	PRCNT SKIPS	PRCNT LEGAL
C07	5/09/76	55-38	162-52	Y33253	Z45917	51	1266	633	17	32
C07	5/09/76	55-36	163-51	Y33256	Z45909	50	508	152	100	10
C07	5/08/76	55-29	164-00	Y33307	Z45944	49	2026	1320	86	8
C07	5/08/76	55-30	164-00	Y33304	Z45946	49	1266	633	60	6
C07	5/08/76	55-39	164-00	Y33268	Z45962	50	5803	2171	20	12
C07	5/08/76	55-40	164-00	Y33263	Z45964	50	7599	2343	30	13
C07	5/08/76	55-49	167-00	Y33235	Z45972	50	10238	5699	19	5
C07	5/08/76	55-50	164-00	Y33232	Z45971	50	6991	5167	20	23
C08	5/10/76	55-39	163-24	Y33172	Z45720	43	3495	1824	50	13
C08	5/06/76	55-39	163-24	Y33173	Z45720	41	1520	760	67	11
C08	5/10/76	55-39	162-49	Y33078	Z45492	29	632	380	39	9
C08	5/06/76	55-42	162-50	Y33045	Z45498	26	2487	1659	92	6
C08	7/08/76	55-00	168-23	Y33510	Z46923	67	102	912	0	90
C08	5/21/76	56-00	165-47	Y33506	Z44696	67	3040	1520	0	34
C08	5/14/76	56-00	165-11	Y33396	Z46452	61	8359	6712	0	44
C08	5/08/76	56-00	165-10	Y33389	Z46443	51	500	497	3	36
C08	5/14/76	56-00	164-36	Y33292	Z46219	50	60095	25698	0	27
C08	5/08/76	56-00	164-36	Y33293	Z46224	49	152	455	20	60
C07	5/14/76	56-00	163-59	Y33189	Z45982	49	16579	6526	0	23
C07	5/05/76	56-59	164-00	Y33194	Z45995	48	127	1140	60	67
C07	5/05/76	56-00	164-00	Y33191	Z45994	48	152	1216	0	09
C07	5/05/76	56-10	164-00	Y33151	Z45996	48	304	1064	13	30
C07	5/05/76	56-39	164-00	Y33158	Z46000	48	651	651	10	45
C08	5/13/76	56-20	163-24	Y33091	Z45745	47	13263	2487	0	4
C08	5/06/76	56-00	163-24	Y33095	Z45744	47	1976	2736	36	51
C08	5/11/76	56-00	163-50	Y33002	Z45510	43	6494	1243	9	4
C09	5/07/76	55-31	162-50	Y32999	Z45521	43	1105	138	0	2
C10	5/11/76	56-00	162-14	Y32902	Z45259	38	715	179	39	2
C11	5/11/76	56-00	161-39	Y32817	Z45003	17	553	0	0	0
E02	7/13/76	56-19	167-02	Y33558	Z47217	61	0	212	0	100
E02	7/25/76	56-21	166-24	Y33528	Z46990	55	191	912	0	91
E04	5/21/76	56-20	165-47	Y33426	Z45729	49	102	102	0	33
E06	5/22/76	56-20	164-35	Y33213	Z45244	46	0	553	0	100
E06	5/07/76	56-20	164-36	Y33211	Z45253	47	0	101	0	100
E07	5/22/76	56-00	164-00	Y33139	Z45088	46	152	912	0	78
E07	5/07/76	56-20	164-00	Y33112	Z45013	45	1105	2040	0	32
E09	5/13/76	56-20	163-24	Y33005	Z45760	42	2901	4697	0	56
E09	5/17/76	56-20	162-26	Y33010	Z45777	45	4145	4886	8	53
E09	5/13/76	56-19	162-49	Y32813	Z45527	42	957	350	0	10
E10	5/13/76	56-20	162-12	Y32520	Z45378	44	2533	608	33	3
E11	5/21/76	56-20	161-37	Y32730	Z45040	34	8813	2432	44	9
E12	5/13/76	56-20	161-00	Y32535	Z44797	23	651	1105	89	31
E03	5/22/76	56-40	164-00	Y33012	Z45032	40	0	150	0	100
E03	5/22/76	56-40	163-24	Y32908	Z43778	40	0	203	0	75

TABLE 2. CONTINUED

STATION	DATE	POSITION			DEPTH (FMS)	BOT. TEMP. (C)	PRE-RECRUITS	LEGALS		
		LAT	LONG	LORAN C			*****	*****	*****	*****
							NOS/ SQMI	NOS/ SQMI	PRCNT SKIPS	PRCNT LEGAL
F09	6/23/76	56-40	162-47	Y32812 Z45532	38	-0.6	0	152	0	33
F10	6/12/76	56-40	162-11	Y32718 Z45288	48	-1.0	2584	608	0	3
F11	6/12/76	56-40	161-35	Y32631 Z45051	46	-0.8	3040	553	25	5
F12	6/12/76	56-40	160-59	Y32540 Z44800	36	0.5	709	304	50	11
F13	6/25/76	56-40	160-22	Y32446 Z44556	33	1.1	967	414	100	9
F20	7/06/76	56-40	169-30	Y34057 Z48193	42	1.5	0	0	0	0
G09	6/23/76	57-00	162-48	Y32704 Z45556	31	-0.5	101	0	0	0
G10	6/23/76	57-00	162-10	Y32603 Z45308	31	0.7	553	829	0	21
G11	6/24/76	57-00	161-34	Y32518 Z45058	37	0.3	1013	203	0	4
G12	6/24/76	57-00	160-57	Y32432 Z44814	34	0.9	414	0	0	0
G13	6/25/76	57-00	160-20	Y32339 Z44560	34	1.0	1558	691	40	1
G14	6/25/76	57-00	159-43	Y32258 Z44312	30	1.5	414	829	100	25
G20	7/03/76	56-59	169-32	Y34020 Z48270	32	2.0	0	91	0	50
H08	7/03/76	57-20	163-23	Y32687 Z45800	28	0.2	0	152	0	100
H09	7/01/76	57-20	162-46	Y32590 Z45560	26	2.6	553	138	0	13
H10	7/01/76	57-20	162-09	Y32496 Z45209	27	1.9	855	760	0	20
H11	6/29/76	57-20	161-32	Y32401 Z45064	30	1.5	1013	709	0	1
H12	6/24/76	57-20	160-55	Y32316 Z44826	32	0.9	760	608	0	4
H13	6/24/76	57-20	160-18	Y32228 Z44576	32	1.2	553	276	50	3
H14	6/25/76	57-20	159-40	Y32146 Z44320	23	1.5	414	138	100	4
H15	6/26/76	57-20	159-04	Y32064 Z44078	25	2.0	101	203	100	11
I08	7/03/76	57-40	163-22	Y32559 Z45802	24	2.4	0	0	0	0
I09	7/01/76	57-40	162-45	Y32454 Z45568	23	3.5	0	138	0	50
I10	6/30/76	57-40	162-07	Y32358 Z45319	24	3.0	2735	760	0	11
I11	6/30/76	57-40	161-30	Y32279 Z45071	23	2.3	4421	553	0	4
I12	6/29/76	57-40	160-53	Y32189 Z44834	29	1.5	1382	691	0	7
I13	6/28/76	57-39	160-16	Y32105 Z44587	27	1.9	80	0	0	0
I14	6/28/76	57-39	159-37	Y32031 Z44344	26	1.9	414	553	100	3
I15	6/26/76	57-40	159-01	Y31959 Z44110	25	2.4	414	138	100	6
J08	7/02/76	57-59	163-21	Y32424 Z45816	22	3.1	80	0	0	0
J09	7/01/76	58-00	162-45	Y32328 Z45577	21	3.8	138	0	0	33
J10	6/30/76	58-00	162-07	Y32232 Z45320	19	3.6	329	138	0	7
J11	6/30/76	58-00	161-29	Y32144 Z45087	23	2.1	414	553	20	31
J12	6/29/76	58-00	160-51	Y32060 Z44846	23	2.6	2349	553	0	9
J13	6/29/76	58-00	160-13	Y31976 Z44601	27	2.0	80	720	0	10
J14	6/29/76	58-01	159-37	Y31904 Z44386	22	2.0	101	203	50	25
J15	6/27/76	58-00	158-58	Y31834 Z44151	22	2.5	0	105	100	14
Z05	6/15/76	54-40	165-09	Y33608 Z46297	44	4.3	4103	1520	0	25
Z05	8/09/76	54-30	165-09	Y33610 Z46291	44	5.5	921	395	0	9

TABLE 3. BLUE KING CRAB (P. PLATYPUS), 1976 EASTERN BERING SEA. NUMBERS OF PRE-RECRUITS AND LEGALS CAUGHT PER AREA TRAWLED, PLUS OTHER SURVEY DATA BY STATION. PRE-RECRUITS, 5 TO 6.5 INCHES, LEGALS, OVER 6.5 INCHES.

STATION	DATE	POSITION		LORAN C		DEPTH (FMS)	BOT. TEMP. (C)	PRE-RECRUITS	LEGALS		
		LAT	LONG	NOS/ SQMI	NOS/ SQMI			PRCNT SKIPS	PRCNT LEGAL		
F20	7/06/76	56-40	169-30	Y34057	Z48193	42	1.5	3799	1773	29	4
G18	5/19/76			X18717	Y33729	47		0	190	0	100
G19	7/07/76	57-00	168-57	Y33880	Z48039	42	1.0	276	3178	0	92
G20	7/08/76	56-59	169-32	Y34020	Z48270	32	2.0	263	1162	43	67
G21	7/08/76	57-00	170-11	Y34132	Z48501	35	2.5	608	304	50	18
G22	7/09/76	57-00	170-47	Y34080	Z48560	51	2.3	304	760	0	75
H01	5/19/76			Y33472	Z47552	38		106	0	0	0
H21	7/11/76	57-20	170-13	Y34000	Z48496	29	2.9	0	0	0	0
H22	7/09/76	57-21	170-50	Y33941	Z48550	45	2.3	138	138	50	67
I20	5/05/76			Y33596	Z48197	40		0	101	0	100
I21	7/11/76	57-40	170-16	X18336	Z48284	50	3.5	0	0	0	0