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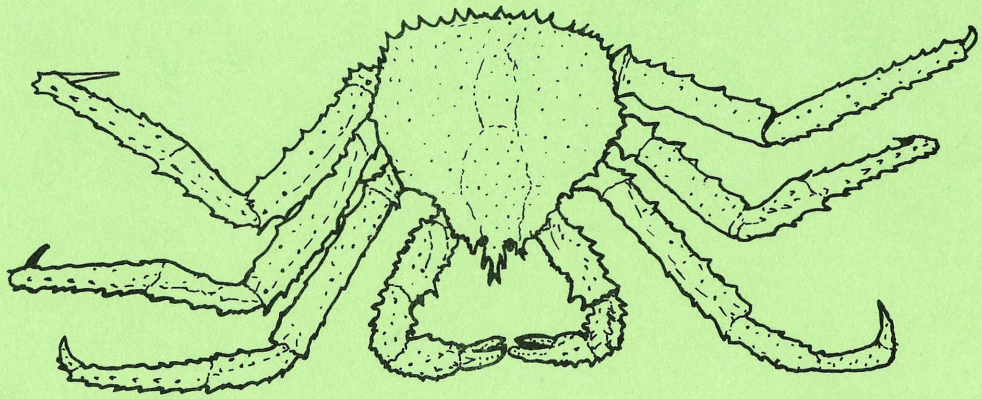
REPORT TO INDUSTRY ON THE 1983 EASTERN BERING SEA CRAB SURVEY

OCTOBER 1983



GOLDEN or BROWN KING CRAB
Lithodes aequispina

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All data herein are to be considered provisional.

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Report to Industry on the 1983 Eastern Bering Sea Crab Survey

by

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The 1983 Eastern Bering Sea Survey

An annual trawl survey is conducted in the eastern Bering Sea to determine the distribution and abundance of crab and groundfish resources. This report summarizes survey results for commercially important crabs. It is intended to aid fishermen and processors in locating productive grounds and judging overall availability of various species. Survey derived data are also used as part of the basis for management decisions. Red king crab (Paralithodes camtschatica), blue king crab (P. platypus), Korean hair crab (Erimacrus isenbeckii), and two species of tanner crabs (Chionoecetes bairdi and C. opilio) are of primary interest. Hybrid tanner crab are also discussed. Information on groundfish resources is available from the National Marine Fisheries Service's Montlake Laboratory (2725 Montlake Blvd. East, Seattle, Washington 98112).

In addition to our usual activities, we conducted some special studies of golden or brown king crab over the past year. These studies involved pot fishing, tagging, describing reproductive biology, and reviewing available data on distribution. A summary of our 1983 brown king crab work and distribution data obtained by the NMFS observer program are contained in a special section at the end of this report.

Since we have changed our tagging and tag reward systems, a description of this program is also included.

Survey Area and Methods

Areas covered by the 1982 and 1983 surveys are similar (Fig. 1), but this year's survey included more of the area north of St. Matthew Island to check for possible concentrations of blue king crab. The survey was conducted by the NOAA R/V Chapman and the R/V Alaska from June 7 to August 6. The two vessels successfully completed 375 tows and surveyed an area of 131,600 square nautical miles. One or more commercial species of crab were taken in 336 tows.

Both vessels fished an eastern otter trawl with an 83 foot headrope and a 112 foot footrope. Measured wing spread on this trawl has ranged from 47 - 58 feet. Each tow was of one-half hour duration and most tows were 1.4 to 1.8 nautical miles long. Catches were brought aboard, sorted by species and sex, and then a sample of crabs was measured (to the nearest millimeter) to provide a size frequency distribution. In most cases all male crab were measured. A tracing of the bottom profile was made with a recording echo sounder during each tow. A tracing of the surface to bottom temperature profile was taken with an expendable bathythermograph (XBT) at as many stations as possible.

Population estimates (Table 1-3) were derived from the trawl data using the "area-swept" technique. First, the density of crabs at each trawl station was computed then population estimates were calculated by extrapolating the average density of a given size group over the area of the species' (or stock's) range.

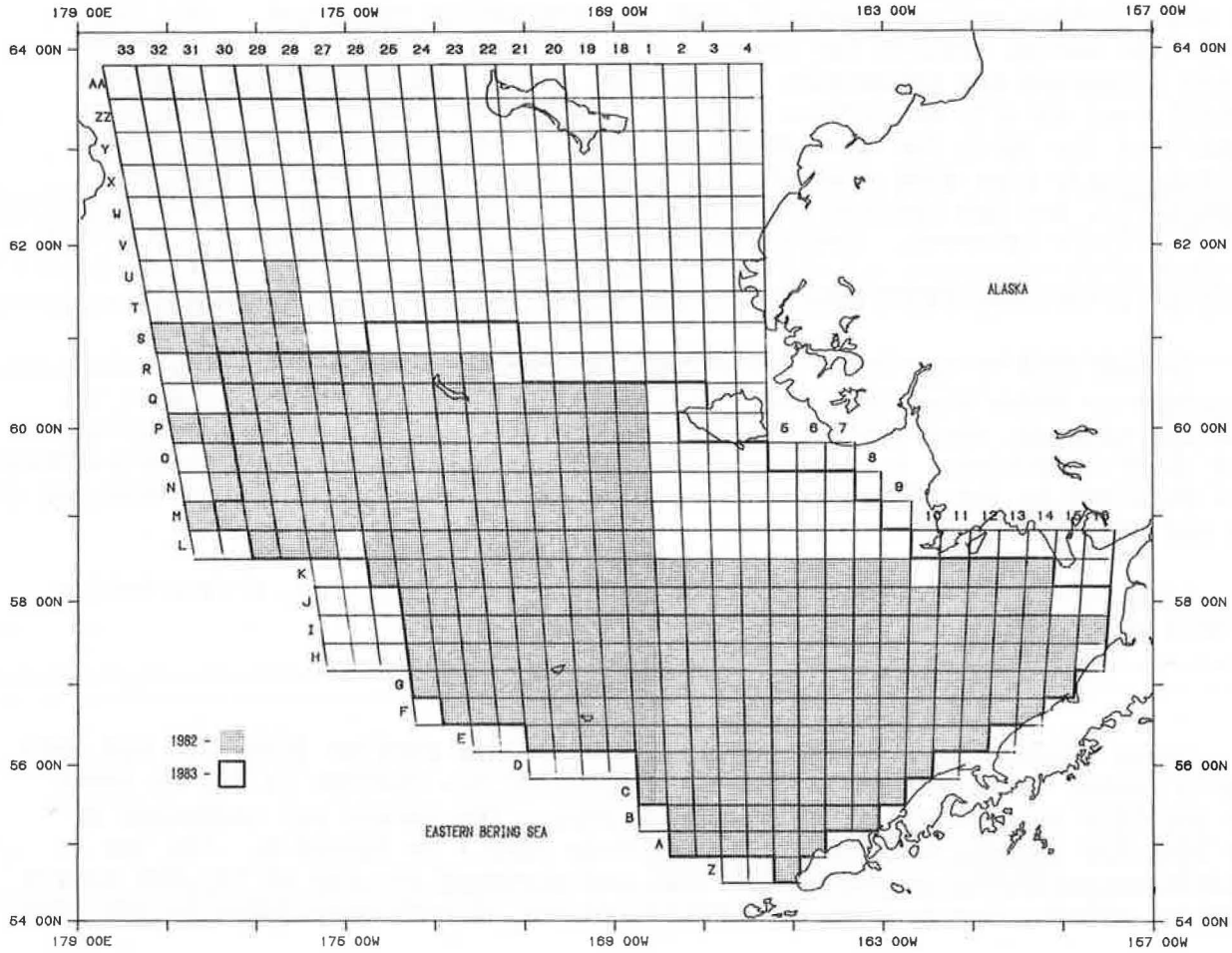


Figure 1. -- NMFS eastern Bering Sea crab survey area in 1982 and 1983.

Interpreting Tables and Charts

Because of differences in the length of tow from vessel to vessel and station to station, catches presented in accompanying charts and tables are standarized as the number of crab caught per mile towed (rounded to whole numbers on charts). Charts are based on 20 by 20 nautical mile squares. In cases where more than one tow was made in a square, the average number of crab caught per mile towed is presented. It is advisable to cross-reference charts and tables to obtain more exact information. Charts and tables showing the percentage of legal crab should be carefully cross-referenced since high percentages of legal crab are often found in areas of low abundance.

Distribution and Abundance of King Crabs

Red King Crab

The distribution of legal-sized red king crab in 1983 differed from that observed in any previous year (Table 4, Chart 1). Due to record low catches, there were no areas of relatively high abundance. Only 43 legal males were taken in Bristol Bay. The distribution of pre-recruit crab (Chart 2) was very similar to 1982. From 1981 onwards, legal and pre-recruit crab have been found to the north and east of their usual grounds. As was true in 1982, no concentrations of red king crab were found west of Amak Island. Almost all pre-recruit and legal males were found between 15 and 45 fm at temperatures ranging from 2 to 5°C. The average depth of capture was 30 fm and the average temperature was 3.7°C. The percentages of legal crab taken at each station (Chart 3) show that the few remaining legal crab are either mixed with other crab or solitary individuals at the periphery of the stock's distribution.

The abundance of legal and pre-recruit crab continues to decline precipitously (Table 1). For the past three years these size classes have declined about twice as fast as expected. The abundance of legal crab is the lowest on record and that of pre-recruits is the lowest since 1972. Commercial catches in Bristol Bay have declined along with abundance estimates, from 130 million pounds in 1980 to 34 million in 1981 and 3 million in 1982. Due to low abundance of males and record low abundance of mature females, the Alaska Department of Fish and Game issued an emergency order closing Bristol Bay to king crab fishing in 1983. If the high mortality rates of the past three years persist, and given the low pre-recruit abundance, we do not expect any substantial recovery of the legal crab population before 1986. Prospects for recovery beyond 1986 are highly uncertain.

Figure 2 shows the relationship between catch rates in the fishery and estimates of abundance derived from annual trawl surveys. Due to the sparse distribution and low abundance of legal-sized crab in 1982, the catch rate was only 4 per pot. A catch rate of less than 2 crab per pot would be expected if the fishery was open in 1983.

The decline of the Bristol Bay red king crab stock is not well explained. While declining abundance was expected starting in 1981, declines have been twice as rapid as anticipated. Declines were expected because of one to two poor year

Table 1. -- Population estimates for eastern Bering Sea king crabs from NMFS surveys (millions of crabs).

Bristol Bay and Pribilof Red King Crabs		
Year	Pre-recruits 1/	Legals 1/
1969	19.5	9.8
1970 2/	8.4	5.3
1972	8.3	5.4
1973	25.9	10.9
1974	31.2	20.8
1975	29.6	21.2
1976	49.3	32.7
1977	63.9	37.6
1978	52.5	46.6
1979	38.8	45.5
1980	23.9	36.1
1981	18.9	11.3
1982	17.1	4.4
1983 3/	10.5	1.5

Table 1. -- (CONTINUED)

Pribilof Blue King Crabs

Year	Pre-recruits 1/	Legals 1/
1974	3.1	1.9
1975	8.0	7.5
1976	2.1	3.9
1977	2.2	9.4
1978	5.6	4.3
1979	1.5	4.6
1980	1.4	4.2
1981	1.4	4.1
1982	0.7	2.2
1983 3/	0.8	1.3

Saint Matthew Blue King Crabs

Year	Pre-recruits 4/	Legals 4/
1978	3.3	1.9
1979	3.0	2.1
1980	3.0	2.5
1981	2.2	3.1
1982	3.3	6.8
1983 3/	1.9	3.4

1/ The size groups 5.2" - 6.4" and ≥ 6.5" have been used for pre-recruits and legals, respectively.
2/ Limited survey in 1971, not used for population estimates.
3/ Preliminary estimate subject to change upon further analysis.
4/ The size groups 4.3" - 5.4" and ≥ 5.5" have been used for pre-recruits and legals, respectively.

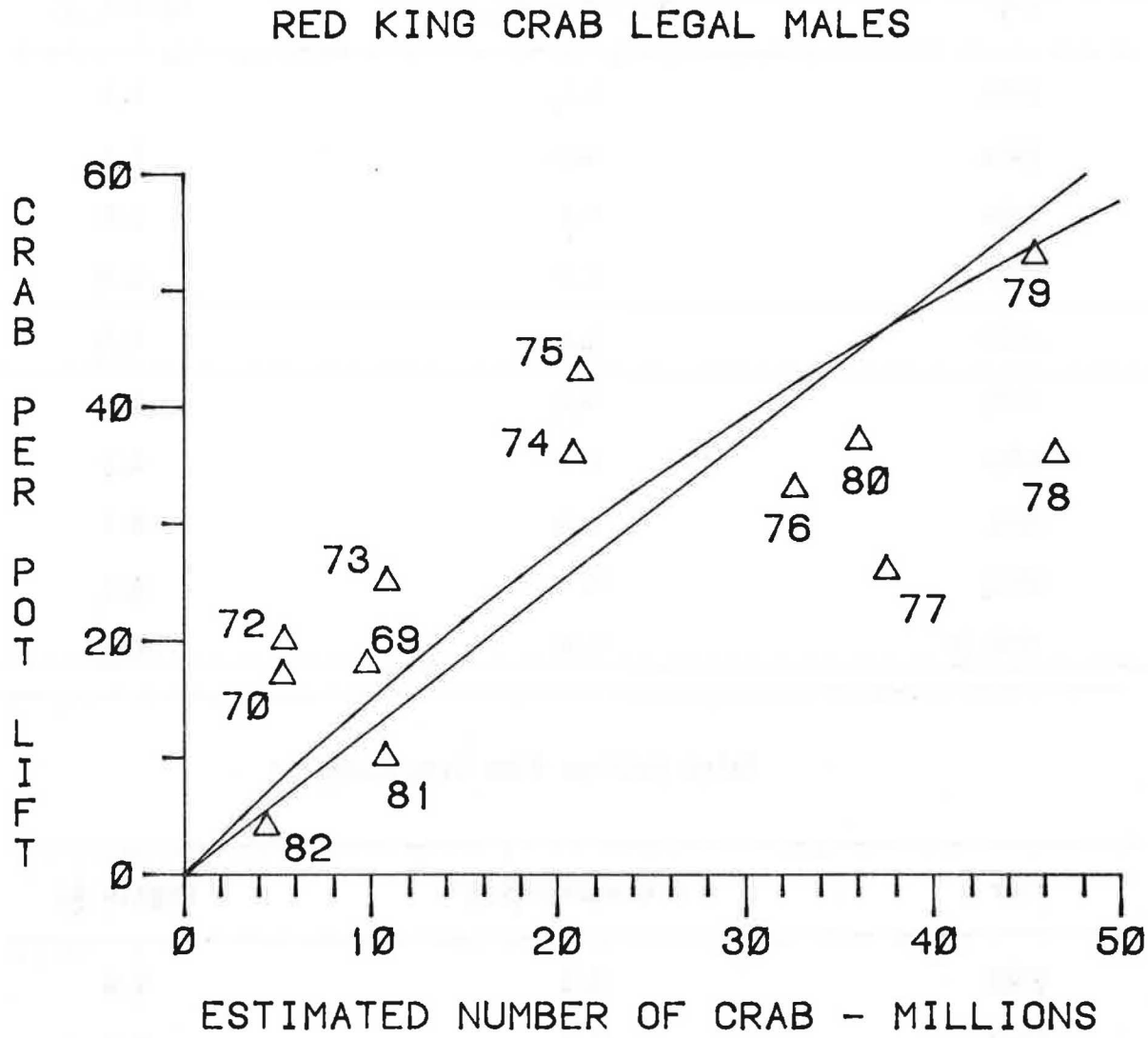


Figure 2. -- Relationship between the season average number of red king crab (Paralithodes camtschatica) taken per pot in the U.S. fishery and estimates of stock size from NMFS trawl surveys in the preceding summer. The curved line assumes some limit to the number of crab a pot could catch.

classes detected as early as 1978. Apparent mortalities of pre-recruit crab in 1981 and 1982 were approximately twice the average rate. The possibility of high mortalities being related to handling mortality of sub-legal crab was considered at that time. Effort in the fishery declined about 80% from 1981 to 1982, however, and high mortality rates still persist. High mortalities were largely confined to the pre-recruit size group in 1981 and 1982, but the 1983 survey showed that smaller males are now involved. The estimated abundance of males less than 5.2 inches was a record 107 million crab in 1982, but declined to 43 million crab in 1983. There was also a substantial decline in the abundance of mature females (77 million in 1982 vs. 24 million in 1983).

At this point in time it appears that high mortality rather than low year class strength is the primary cause of declining abundance. While warming trends of the past few years may be implicated in the decline, predation or disease seem more likely explanations. The abundances of cod and halibut have been high in the last three years. Both species are known predators on king crab, particularly during the molting period. Other predators may also be involved. We have recently discovered a protozoan and several virus infections in king crab populations. These are currently being investigated by Dr. Al Sparks at the NMFS Montlake Laboratory. While little is presently known of these diseases, they are of types that have been implicated in severe declines in other crustacean populations.

Blue King Crab

This species is found in significant concentrations in the vicinity of the Pribilof Islands and St. Matthew Island (Charts 4, 5, and 6, Table 5). In the Pribilof area, distribution of legal-sized crab (Chart 4) was very similar to that of last year. Most crab were found north and east of the islands. The distribution of pre-recruits (Chart 5) was also about the same as in 1982, and in both years was similar to that of legal-sized males. In the St. Matthew Island area, legal as well as pre-recruit crab were found south and west of the island. Almost all legal and pre-recruit crab were taken at temperatures between -1.0 and 4.0°C. The average temperature was 2.0°C. Most crab were taken at 20 to 40 fm in the Pribilof Islands area. In both areas, the percentage of legal crab at each station (Chart 6) should be interpreted cautiously for reasons described above.

The abundance of legal-sized crab (Table 1) in the Pribilof District was stable from 1978 to 1981, declined about 50% in 1982, and continued to decline in 1983. The abundance of pre-recruit crab was stable but low in 1982 and 1983. The commercial fishery produced 9 million pounds in 1981, 4 million pounds in 1982, and may well produce less in 1983. While there is not a clear relationship between the abundance of pre-recruits and later abundance of legals, declines in the abundance of both size groups over the past 3 years probably indicate low abundance of legal crab in 1984. The habitat of smaller males is rocky and untrawlable, therefore little can be said of longer term recruitment.

The estimated abundance of legal crab in the St. Matthew Island area declined by 50% from 1982 to 1983, but it is still the second highest on record (Table 1). Pre-recruit crab abundance also declined. This year crab were predominantly old shelled and showed no sign of molting. The fishery produced 5 million pounds in 1981, 9 million in 1982 and 10 million pounds in 1983 (preliminary). A cruise aboard the F/V Valiant in late June and early July was primarily directed at tagging sub-legal males for growth studies. Finding

sub-legal males proved difficult and more than 60% of crab tagged were above legal size. While some carry-over of legal crab is expected, declining trawl survey pre-recruit estimates and the small numbers of sub-legals available for tagging indicate a decline in legal crab abundance going into 1984. Longer term recruitment information is unavailable.

As has been noted in all previous surveys, there is a well defined geographic separation of the Pribilof and St. Matthew Island's populations. There is probably little, if any, migration between the two areas. Tagging in the St. Matthew Island area over the past two years shows no interchange between the two stocks.

Distribution and Abundance of Tanner Crabs

C. bairdi

The distribution of legal-sized C. bairdi is similar to that of last year (Chart 7, Table 6). Areas surrounding the Pribilof Islands and north of the Alaska Peninsula from False Pass to Port Heiden had relatively high concentrations of crab. The Pribilof Islands area, however, appears to be less important relative to 1982. A small area of high abundance found northwest of Unimak Island in 1982 is also much reduced. The distribution of pre-recruit crab mirrored that of legals except that relatively high concentrations of pre-recruits are found throughout shelf-edge areas and extend well north of 58° (Chart 8). It should be noted that few legal crab have ever been found north of 58° and hence crab in the pre-recruit size group may reflect the maximum size reached there. Most legal and pre-recruit crab were found at 30 to 50 fm in Bristol Bay and at 70 to 85 fm in areas to the west. Most were found at temperatures ranging from 2.0 to 5.0°C with an average temperature of 3.4°C. Percentages of legal crab were highest in the area north and northwest of Port Heiden (Chart 9).

The abundance of legal crab declined slightly more than 30% from 1982 to 1983 (Table 2). This decline was about the same as that from 1981 to 1982 but less severe than that of the previous years. Landings have fallen from 30 million pounds in 1981 to 11 million in 1982 and slightly more than 5 million pounds in 1983 (preliminary). Pre-recruit abundance almost doubled from 1981 to 1982 and led us to believe that legal stocks might show some recovery in the near future. Unfortunately, pre-recruit abundance declined at about the same rate as legal crab abundance over the past year. Consequently, any recovery of legal crab abundance is likely to be slow and fishing likely to remain poor going into 1984.

The relationship between catch rates in the fishery and estimated abundance in the previous summer survey (Fig. 3) indicate that catch rates in 1984 will probably be below five crab per pot.

C. opilio and Hybrid Tanner Crab

Distribution data for C. opilio and hybrid tanner crab are combined in this report because the number of hybrids is small and most hybrids are landed as C. opilio. Until June 1982, there was no size limit for C. opilio but most of the catch was greater than 4.3 inches. A size limit of 3.1 inches was established but the size of crab landed has fluctuated with market conditions. Most of the

Table 2. -- Population estimates for eastern Bering Sea tanner crabs from NMFS surveys (millions of crabs).

Bristol Bay and Pribilof *C. bairdi*		
Year	Pre-recruits 1/	Legals 1/
1973	140.5	66.9
1974	255.0	130.5
1975	207.0	209.6
1976	136.6	109.5
1977	116.3	92.1
1978	81.2	45.6
1979	47.7	31.5
1980	65.0	31.0
1981	24.0	14.0
1982	46.9	10.1
1983 2/	32.0	6.7

Bristol Bay and Pribilof *C. opilio*		
Year	Pre-recruits 3/	Large 3/
1973	38.7	84.7
1974	169.2	246.7
1975	247.4	274.8
1976	190.4	181.6
1977	196.6	137.3
1978	171.6	78.4
1979	146.3	106.3
1980	99.1	53.6
1981	62.7	15.7
1982	63.8	10.8
1983 2/	91.6	12.9

Table 2. -- (CONTINUED)

Bristol Bay and Pribilof Hybrid Tanner Crab

Year	Pre-recruits 3/	Large 3/
1975	13.2	33.8
1976	4.0	16.5
1977	9.6	15.4
1978	2.0	5.6
1979	3.0	5.1
1980	0.8	1.7
1981	0.5	0.8
1982	0.6	0.5
1983 2/	0.4	<0.1

Northern District *C. opilio*

Year	Pre-recruits 3/	Large 3/
1978	8.2	10.5
1979	20.8	6.6
1980	30.4	4.2
1981	17.1	6.5
1982	70.4	10.9
1983 2/	50.0	9.2

1/ A legal size limit of 5.5" carapace width was imposed in 1976, but prior to this > 5.0" was used in the "Legal" column. In parallel, pre-recruit was 3.3" - 5.0" prior to 1976 and 4.3" to 5.5" since.

2/ Preliminary estimate subject to change upon further analysis.

3/ "Large" is > 4.3" as this has been the size of most interest to U.S. industry; pre-recruit is 3.7 to 4.3". Crab in both size groups have been landed in the past two years, however, and the minimum acceptable size is fluctuating with market conditions.

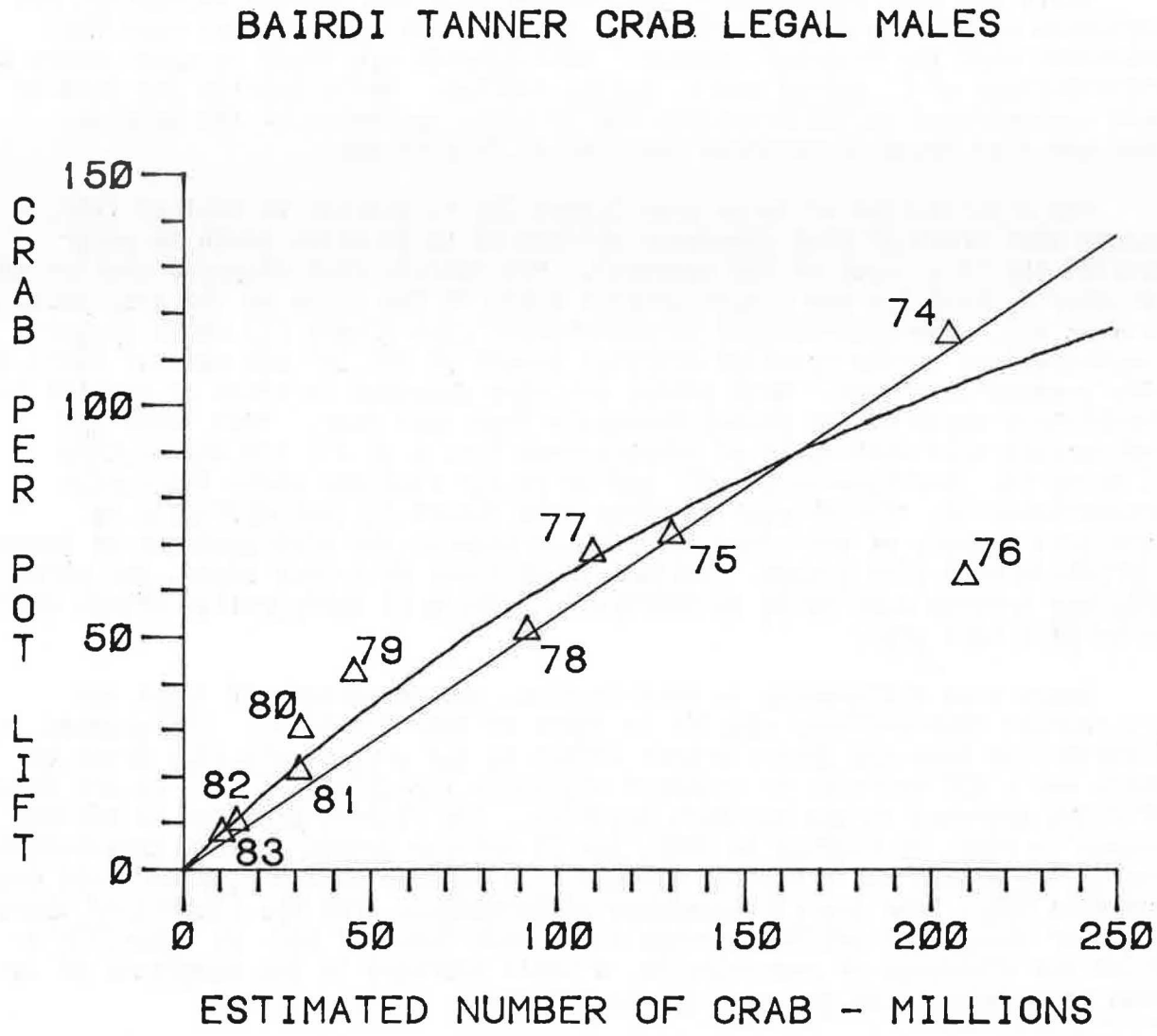


Figure 3. -- Relationship between the season average number of tanner crab (Chionoecetes bairdi) taken per pot in the U.S. fishery and estimates of stock size from NMFS trawl surveys in the preceding summer. The curved line assumes some limit to the number of crab a pot could catch.

catch has been larger than 3.7 inches and differential prices have been paid for "small" versus "large" crab. The pre-recruit and large size groups used in this report very nearly reflect these size categories in the fishery.

There has been considerable controversy over the landing of hybrids and confusion of hybrids with sub-legal C. bairdi. This problem has been most prevelant near the Pribilof Islands. Most hybrids are found in areas where the distributions of C. bairdi and C. opilio overlap. While hybrids are usually more concentrated in the Pribilofs and in areas northwest of the Islands, they are also found in northern portions of Bristol Bay.

The distribution of large crab (Chart 10) is similar to that of 1982, except that areas of high abundance shifted 20 to 40 miles south in outer Bristol Bay (i.e. east of 168 degrees). Pre-recruit crab showed a similar shift in outer Bristol Bay and a much greater shift to the south in the area north of Bristol Bay. The distribution of pre-recruit crab (Chart 11) shows higher concentrations in the Pribilof district (south of 58° 39' and west of 168°) than were present last year. Both groups are more abundant in areas of Bristol Bay immediately north of the Alaska Peninsula than last year. Most large and pre-recruit crab were taken at temperatures from 0 to 3°C and depths from 35 to 65 fm. Averages were 2.5°C and 50 fm for stations where these size groups occurred. Percentages of large crab (Chart 12) are difficult to interpret because of the close association between the distributions of large and pre-recruit size groups. Subject to cautions described above, the percentage data may provide some guide to profitable fishing if differential prices continue to be paid next year.

Apart from differences in distribution, the abundances of legal and pre-recruit crab are very similar to those of 1982 (Table 2). Differences in distribution have had their largest effect on the pre-recruit size group as there was a 43% increase in southern districts (south of 48° 39') at the expense of a 29% decrease in the Northern District. The fishery produced 53 million pounds in 1981, 29 million in 1982, and 25 million pounds in 1983 (preliminary). Decreasing effort and a smaller average size explain most of the decrease over the past year. The overall abundance of marketable crab has stabilized though at lower levels and smaller average sizes than those of mid- to late-1970's. Given the abundance of pre-recruits, a small increase in the abundance of large crab is expected over the next one to two years.

The relationship between catch rates in the fishery and estimated abundance in the previous summer survey is shown in Fig. 4. Note that the 1983 value reflects a smaller size at entry into the fishery and is therefore not directly comparable with the values for earlier years. The relationship between the estimated abundance of marketable crab and average catch rates is clearly not linear. Preliminary ADF&G data show average catch rates of 37 and 107 crab per pot in 1983 for Bristol Bay and the Pribilof District, respectively. The overall average was 83 crab per pot and catch rates should be similar in 1984.

Distribution and Abundance of Korean Hair Crab

During the 1983 survey, large Korean hair crab (> 3.5 inches carapace length, no legal size) were found in major concentrations to the east and northeast of the Pribilof Islands and in low numbers in a band that extends along the southern

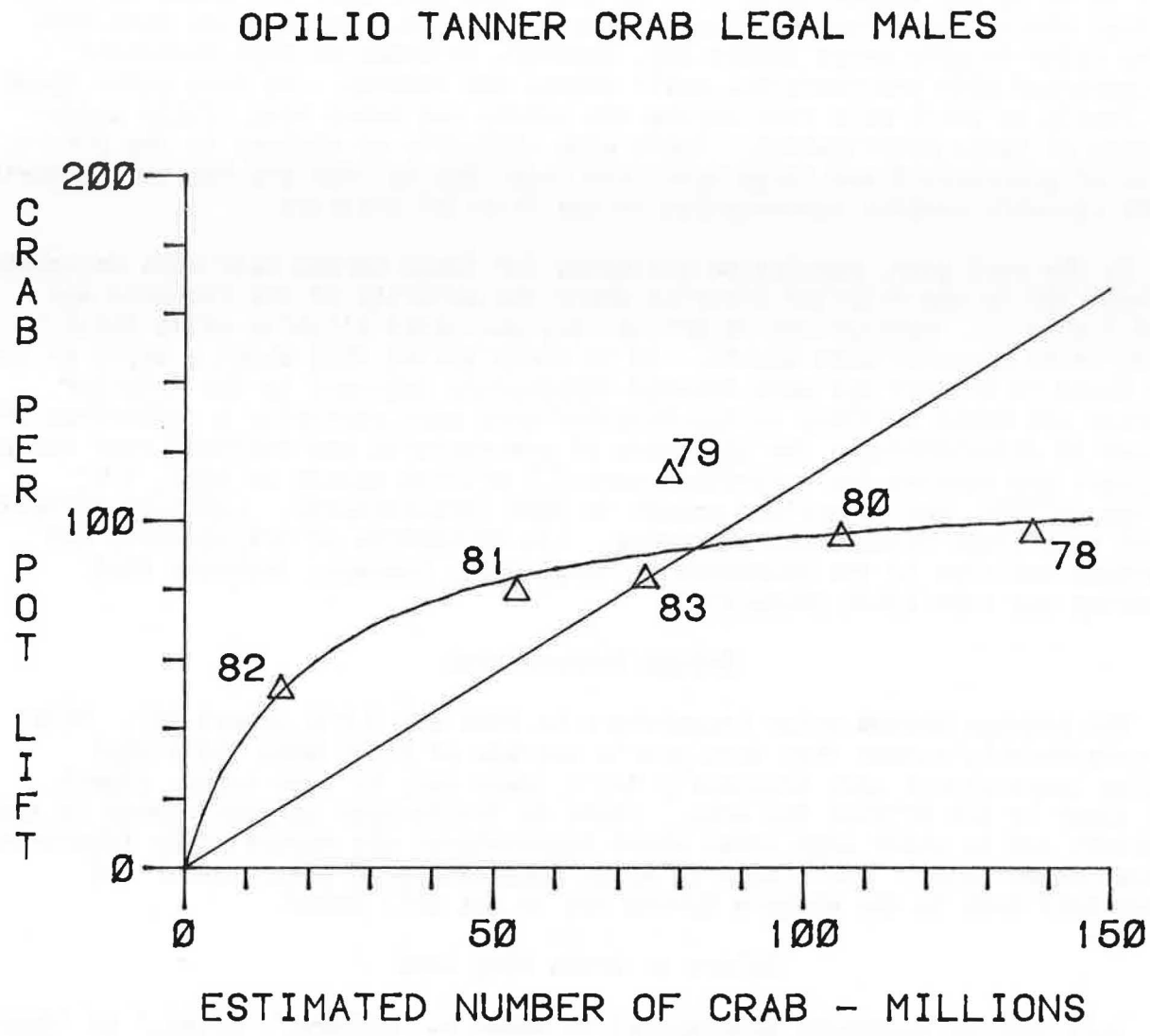


Figure 4. -- Relationship between the season average number of tanner crab (Chionoecetes opilio) taken per pot in the U.S. fishery and estimates of stock size from NMFS trawl surveys in the preceding summer. The curved line assumes some limit to the number of crab a pot could catch.

edge of Bristol Bay (Chart 13 and Table 8). Isolated individuals were found as far north as the St. Matthew area. Pre-recruit crab (Chart 14) were found in the same areas as large crab but in much lower abundance. Most hair crab were taken in 25 to 45 fm and temperatures of 2 to 6°C. Averages were 3.3°C and 38 fm at stations where pre-recruit and large crabs were taken. Large males were 100% of the catch in many areas (Chart 15), however, in areas of high abundance they occurred with pre-recruits, small males, and females. We have never found many female or small male crab during the survey and hence have little understanding of their distribution. There were virtually no changes in the distribution of pre-recruit and large hair crab from 1982 to 1983 and the vast majority of the resource remains concentrated in the Pribilof District.

In the past year, population estimates for large Korean hair crab decreased by about 50% in the Pribilof District where the majority of the resource was found (Table 3). Populations in Bristol Bay decreased slightly while those in the Northern District were stable. It is worth noting that about a third of the crab found in Bristol Bay were located immediately adjacent to the Pribilof District and hence declines in the Pribilof area were partially a reflection of changes in distribution. The abundance of pre-recruits has declined over the past few years and remains low. Landings were 2.5 million pounds in 1981, 1.2 million in 1982, and .8 million pounds in 1983 (preliminary). Landings reflect market conditions rather than abundance. Low abundances of pre-recruits and continued declines in the abundance of large crab, however, indicate that abundance may soon limit production.

Bottom Temperatures

The average bottom water temperature in 1983 was 3.0°C (Chart 16). This was considerably warmer than last year's average of 2.3°C when individual station temperatures were frequently 4-6°C lower and, in some cases, almost 10°C lower in the Bristol Bay area. There is little year to year change in the Pribilofs and in shelf edge areas where temperatures are moderated by incursion of deep ocean water. The effect of water temperature on king, tanner and Korean hair crab in the eastern Bering Sea is not well known.

Golden or Brown King Crab

This species (*Lithodes aequispina*) is known as "golden," "brown," or "deep water" king crab. It is listed in ADF&G regulations as brown king crab. Unfortunately the name "brown king crab" is also applied to a king crab found in the western Pacific (*Paralithodes brevipes*). To our knowledge, the western Pacific species does not occur in Alaskan waters although there has been considerable confusion on this point. The genus (*Lithodes*) is found in all the world's oceans. It is interesting to note that the "centolla" crab (*Lithodes antarcticus*) that is fished in Chile and Argentina is very similar to the brown king crab of Alaska.

Due to serious declines in abundance of red and blue king crab in virtually all areas of Alaska, fisheries for brown king crab have developed rapidly over the past two years. Very little, however, is known about the biology, abundance or distribution of the species. Due to its extremely deep

Table 3. -- Population estimates for eastern Bering Sea Korean hair crabs from NOAA/NMFS surveys (millions of crabs).

Pribilof District		
Year	Pre-recruits 1/	Large
1979	2.9	8.4
1980	3.6	10.4
1981	4.3	13.0
1982	0.8	5.3
1983 2/	0.3	2.5

Bristol Bay		
Year	Pre-recruits	Large
1979	1.2	6.3
1980	0.7	2.5
1981	0.4	2.7
1982	0.3	1.9
1983 2/	0.3	1.6

Northern District		
Year	Pre-recruits	Large
1979	0.4	1.4
1980	0.8	0.8
1981	<0.1	0.2
1982	<0.1	0.5
1983 2/	0.1	0.4

1/ "Large" is > 3.5" in width which is approximately the size at entry into the U.S. fishery; pre-recruit is 3.0" - 3.4".

2/ Preliminary estimate subject to change upon further analysis.

and frequently rocky habitat, it seems unlikely that the abundance of brown king crab can be assessed by our usual methods.

McBride, Fraser and Reeves have summarized available NMFS observer data taken aboard foreign (mostly Japanese) trawlers that catch brown king crab incidentally in the course of various groundfish fisheries. [Information on the Distribution and Biology of the Golden (Brown) King Crab in the Bering Sea and Aleutian Islands Area. NWAFC Processed Report 82-02, available from the Northwest and Alaska Fisheries Center, 2725 Montlake Blvd. East, Seattle, Washington, 98112.] We have updated the data contained in their report and included some additional results below.

Reproductive Studies Aboard the F/V American Eagle

In May two biologists from the Kodiak Laboratory participated in a cruise that was jointly sponsored by the North Pacific Vessel Owners Association and NMFS. The purpose of this work was to determine a size limit for brown crab in the Pribilof District. Specifically, we wished to find out if the size at maturity for males was the same in the Pribilof and Northern Districts of the Bering Sea. Results of this cruise (Table 9) showed an overall size of maturity for females of 100 mm carapace length in the Pribilof District. This was considered identical to the 97 mm size at maturity previously determined for females in the Northern District. Since the females in both Districts mature at the same size, we assume that the males do also. On this basis, effective October 1, the Alaska Board of Fisheries agreed to lower the size limit for males in the Pribilof District to 5.5 inches, in conformance with the Northern District limit.

Other results should be viewed cautiously since a very small area was fished and most effort was directed at catching females. For example, the average depth at capture was nearly identical for males and females, though males (particularly large males) are usually found in shallower water than females. Most likely, this result derives from targeting on females in a special purpose study. The overall catch rates for legal males were not impressive (about 3 crab per pot in each area) but percentages of legal males in the catch were encouraging.

Tagging Aboard the F/V Valiant

The F/V Valiant was on charter from June 20 to July 20 for the purpose of tagging St. Matthew Island blue king crab and brown king crab in the Pribilof and Zhemchug Canyons. About 4,500 blue king crab were tagged and many returns have been received (see note below). Additionally, 1,900 brown crab were tagged. Another purpose of this cruise was to gather additional data in the two canyon areas to confirm results of the May cruise. Unfortunately, these results are not yet available.

Catch rates of brown king crab aboard the F/V Valiant are probably more representative of what may be expected by commercial fishing. We were, however, targeting on sub-legal males and fishing in a relatively small area (Table 10). Catch rates of legal males (Table 11) were better in the Pribilof Canyon (7.8 crab per pot). Soak time in both areas was 12 to 24 hours. The best fishing, however, was a 12 hour soak at set 22 where the mean catch rate was 27 crab per pot; some pots set at about 200 fm caught over 100 crab.

Distribution Data from Foreign Trawlers

This data is taken by NMFS observers aboard foreign vessels. We have chosen to use data from small (mostly independent) Japanese stern trawlers because the bulk of the incidental catch of brown king crab is taken by this vessel category and this fleet covers more of the known range of brown king crab than any other in any given year. These data are still difficult to use in evaluating distribution. Firstly, observers are not placed on all vessels and hence coverage reflects the distribution of observers as well as fishing. Secondly, observers have many duties and are not always able to measure crabs. Finally, the catch rates of crabs are low because trawlers are targeting on groundfish (catch of king crab is prohibited) and because few areas inhabited by brown king crab are good trawling grounds. In spite of these limitations, data from the observer program are probably the best overall source on general distribution.

In order to avoid some of the above problems we sifted through the data as follows. Firstly, we included only tows where some golden king crab were taken and where observers were able to take size frequency data. This means that only the "high spots" are included because observers are more likely to measure crab when they occur frequently in the catch. Secondly, because few data are available, we grouped catch and effort data by 0.5 degree by 1.0 degree latitude - longitude squares. Position data (Tables 12 and 13) refer to the centers of these squares as do the plotted positions (plus signs) on Charts 17 and 18. Finally, we expressed catch rates as the number of legal-size crab taken per 12 hours of trawling in order to avoid too many decimal places.

Coverage was best on the eastern Bering Sea shelf edge, in the eastern Aleutians and the far western Aleutians. There was, unfortunately, very little coverage in the central Aleutians particularly around Adak Island and in the Bowers Ridge - Bowers Bank area. It is interesting to note that this coverage includes areas south as well as north of the Aleutians, while most U.S. pot fishing has taken place to the north of the Islands. It is also worth noting that some of the highest catch rates occurred near grounds that have been productive for U.S. crabbers.

The 1981 data (Table 12 and Chart 17) show relatively high catch rates at widely scattered locations. The highest single catch rate occurred just north of the Islands of the Four Mountains and adjacent to known grounds. Relatively high catch rates were also observed to the south of these islands. The second highest catch rates were in the Pribilof Canyon with the remainder of the higher catch rates were in the western Aleutian Islands and in a small area just north of Unimak Pass. In the western Aleutians, catch rates near Kiska and Amchitka Islands as well as south of Attu and Agattu Islands were noteworthy.

During 1982, the highest catch rate was in the Northern District (this is somewhat surprising in view of the 1983 fishery). Other noteworthy areas were the Pribilof Canyon and south of Amukta Island in the Aleutians. Coverage of the Aleutian Islands was poor in 1982, and 1981 data may provide a better picture.

A Note on Tagging and Tag Returns

We have recently changed the rules in our tag return program and sent out a letter describing the current system on August 17. The purpose of our tagging program is to gather information on growth, migrations and the frequency of molting. For this reason, we need fairly complete information on returns. The following information is requested:

1. Name and mailing address of person to receive reward
2. Tag number (one or both tags if present)
3. Length-width measurements
4. Shell condition
5. Recovery date
6. Recovery location, latitude - longitude
7. Depth
8. Vessel name
9. ADF&G number
10. Processor

This information will be recorded on stamped data cards and validated by ADF&G biologists before being mailed to the NMFS in Kodiak. The reward will be mailed to the address given. The crab will remain the property of the catcher vessel.

A reward of $10.00 will be paid for all tags, with the exception of 70 predetermined numbers, accompanied by the above information. Of the 70 predetermined numbers, 40 will have a reward value of $25.00, 20 a reward value of $50.00 and 10 a reward value of $100.00. Tags returned without the above information will have a reward value of $1.00.

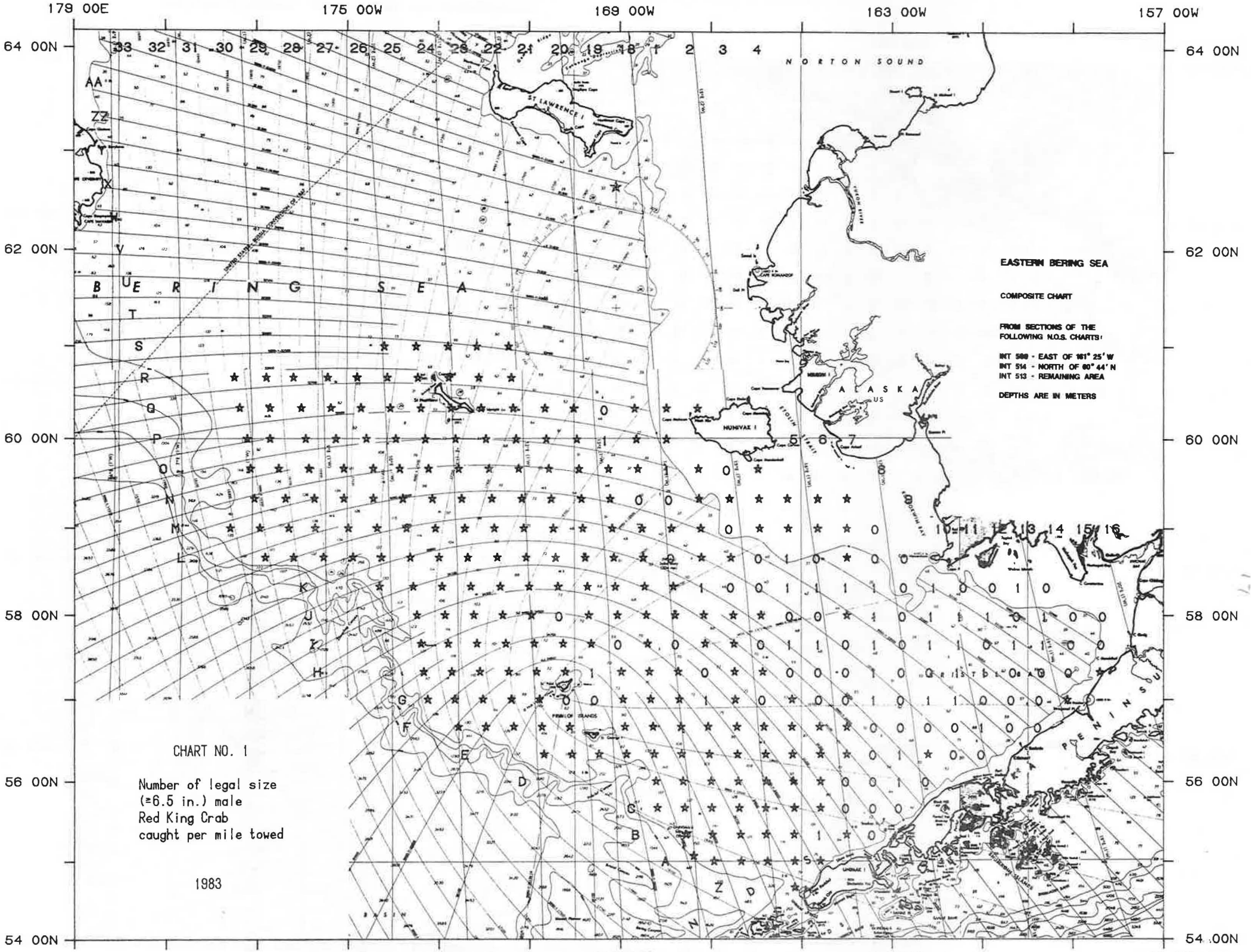
After the fishery is closed and all returns have been checked for completeness and accuracy, 6 of the returned numbers will be randomly selected by computer. Of these randomly selected numbers, 3 will have an additional reward value of $200.00, and three will have an additional reward value of $300.00. In each case, the returned tag must be accompanied by all of the above listed information to be eligible.

Cooperation is essential to the success of this program and a more complete knowledge of the biology of blue and brown king crabs.

Acknowledgements

Successful completion of the annual eastern Bering Sea crab-groundfish survey is crucially dependent on the skipper and crews of the participating vessels. We extend special thanks to Wayne Perryman (R/V Chapman), Tom Oswald (R/V Alaska), and their crews.

With regard to brown king crab, we particularly wish to acknowledge the help of Skipper Joe Wabey of the F/V American Eagle, Skipper Ed Compton of the F/V Valiant and the crews of both vessels. We are also indebted to Russel Nelson and Janet Wall of our Seattle laboratory for help with the NMFS observer program data. Finally, we extend a special thanks to Mr. Dennis Peterson of the North Pacific Vessel Owners Association, without whom the F/V American Eagle would not have been available.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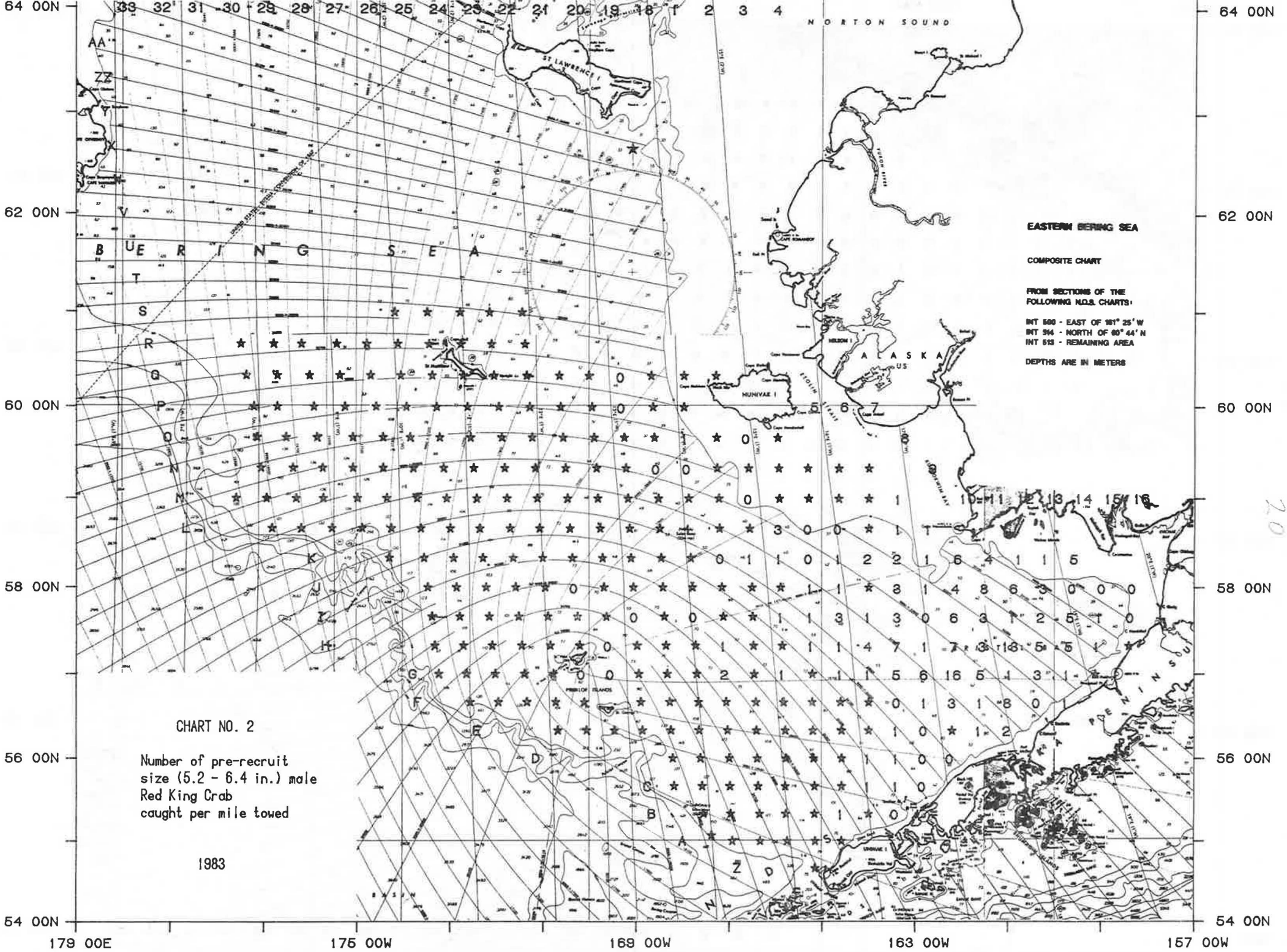
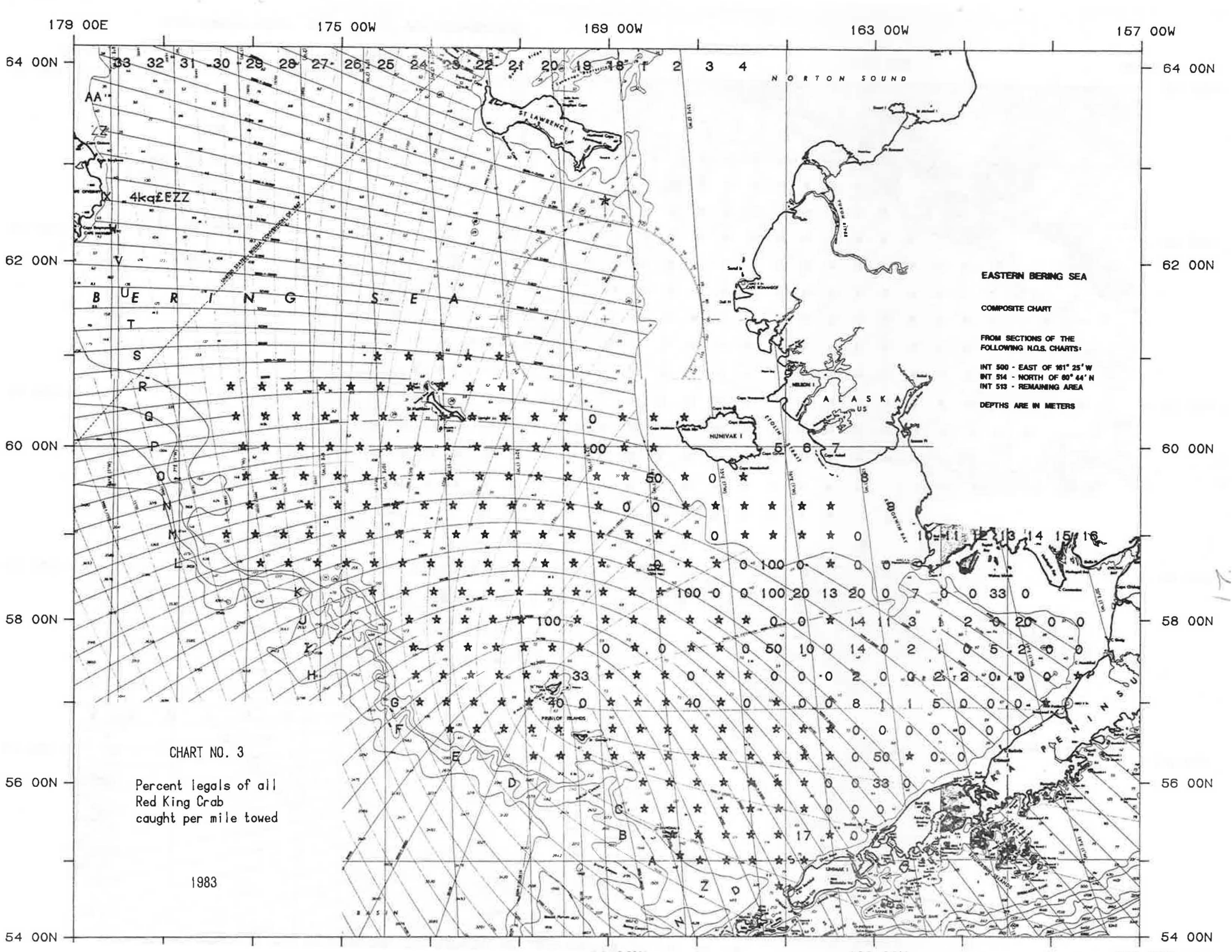
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
BERING SEA
ALASKA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 1
Number of legal size (≥6.5 in.) male Red King Crab caught per mile towed
1983



RED KING /MI-TOWED SEX=1 SIZE=2 PWF DATE=09/15/83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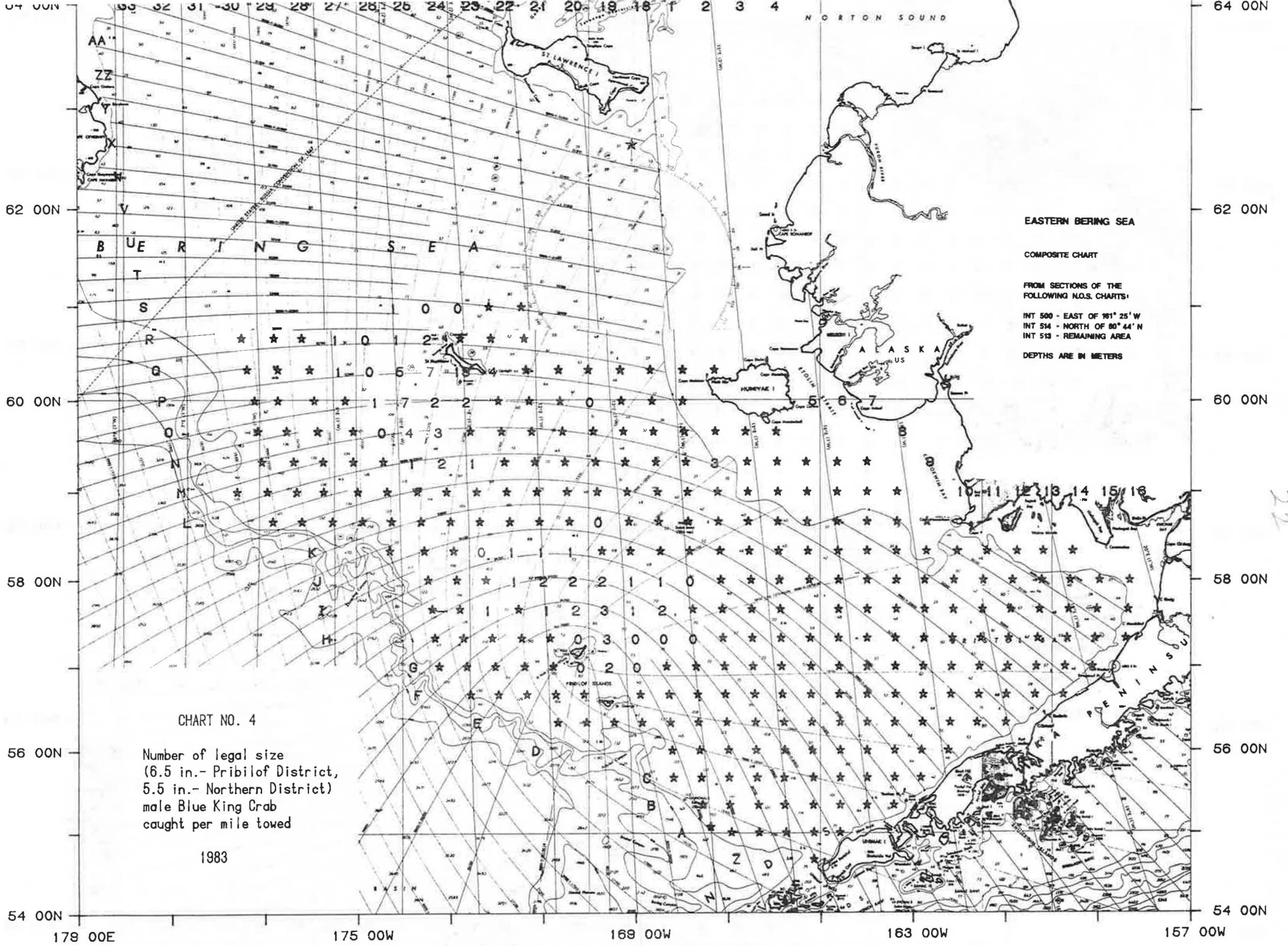
ST LAWRENCE I
NUNIVAK I
NELSON I
ALASKA
BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 3
Percent legals of all Red King Crab caught per mile towed
1983



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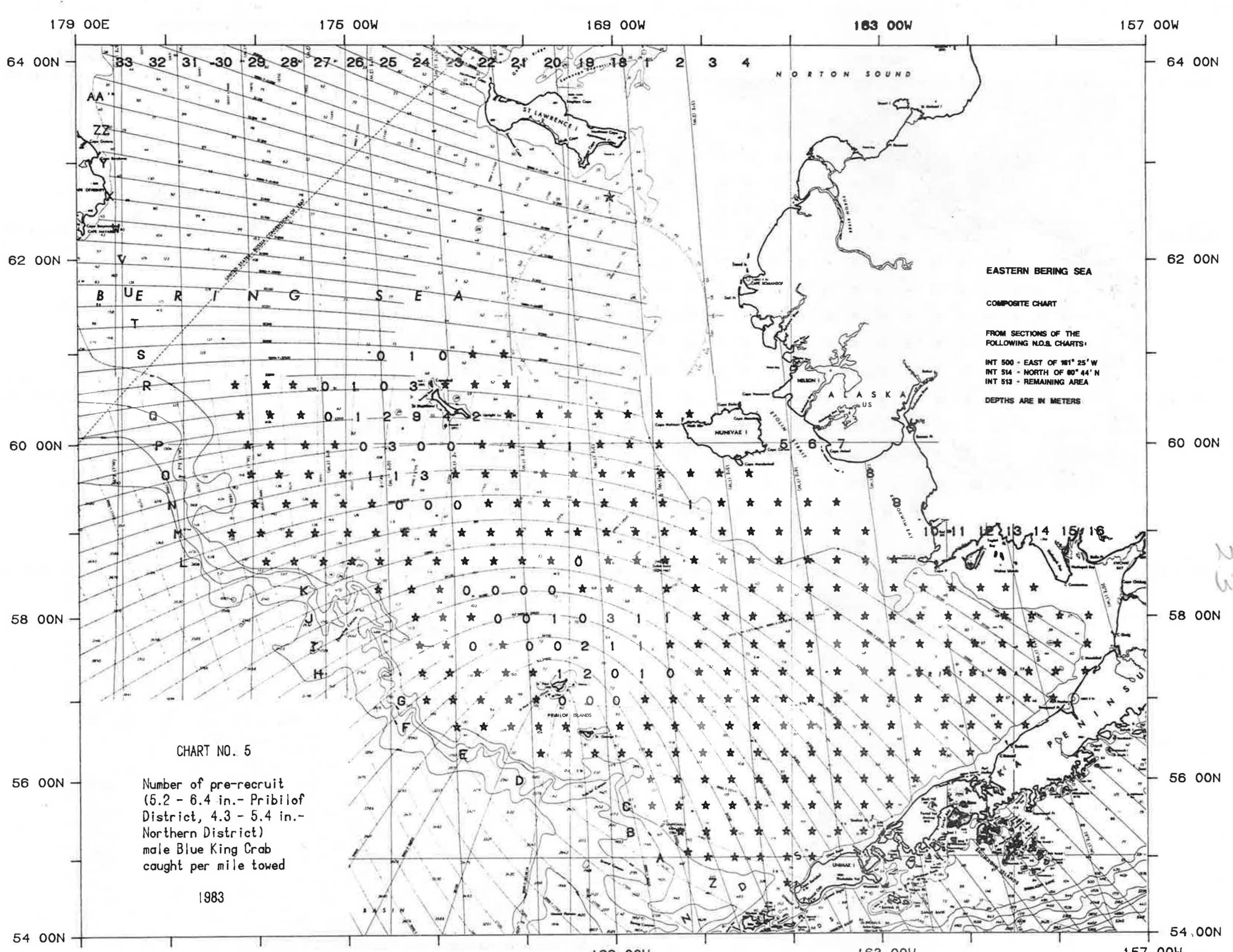
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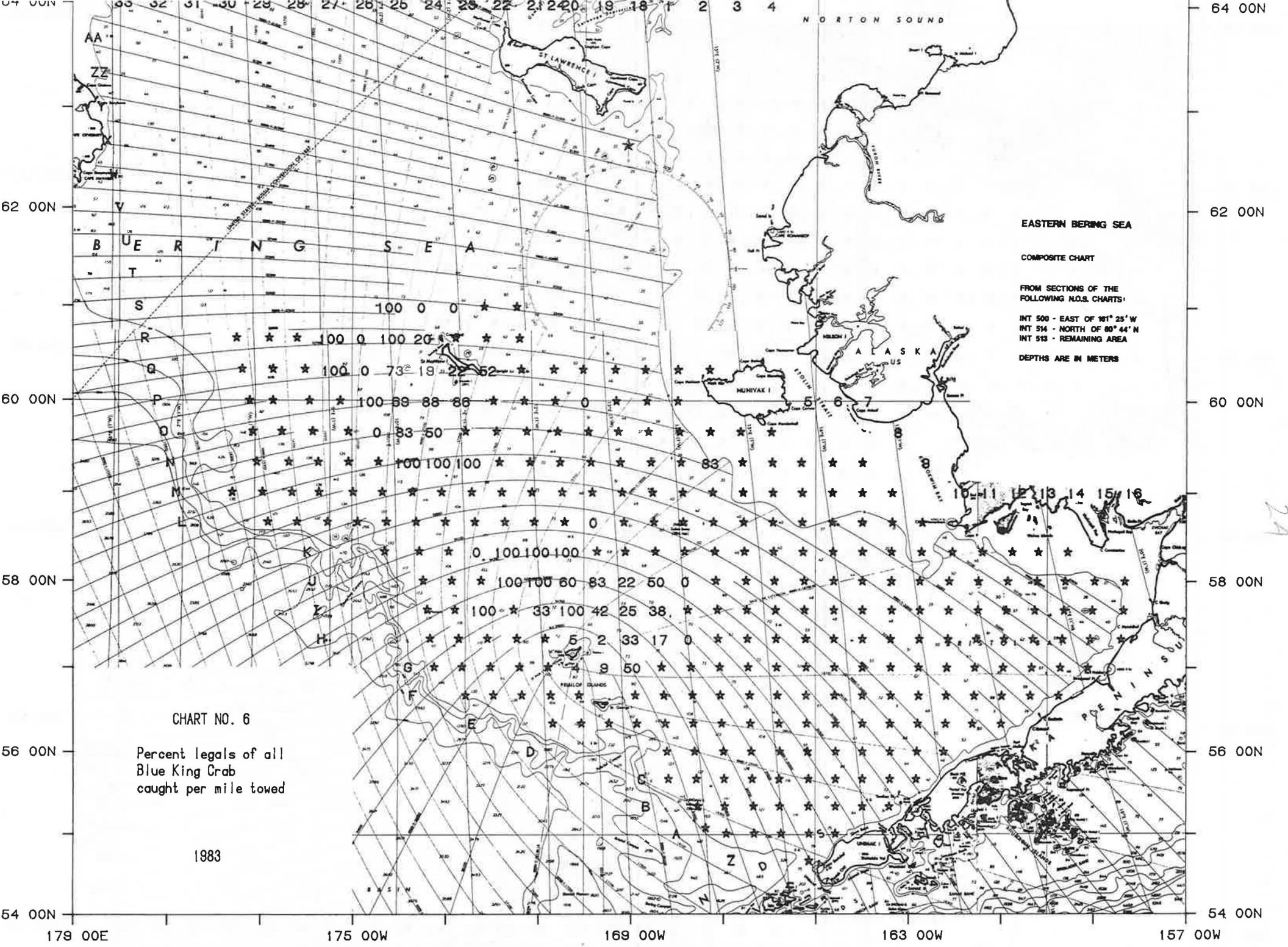
ST LAWRENCE I
NUNIVAK I
NELSON I
ALASKA
US
PRIBILOF ISLANDS
UNIMAK I
BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 5
Number of pre-recruit (5.2 - 6.4 in.- Pribilof District, 4.3 - 5.4 in.- Northern District) male Blue King Crab caught per mile towed
1983



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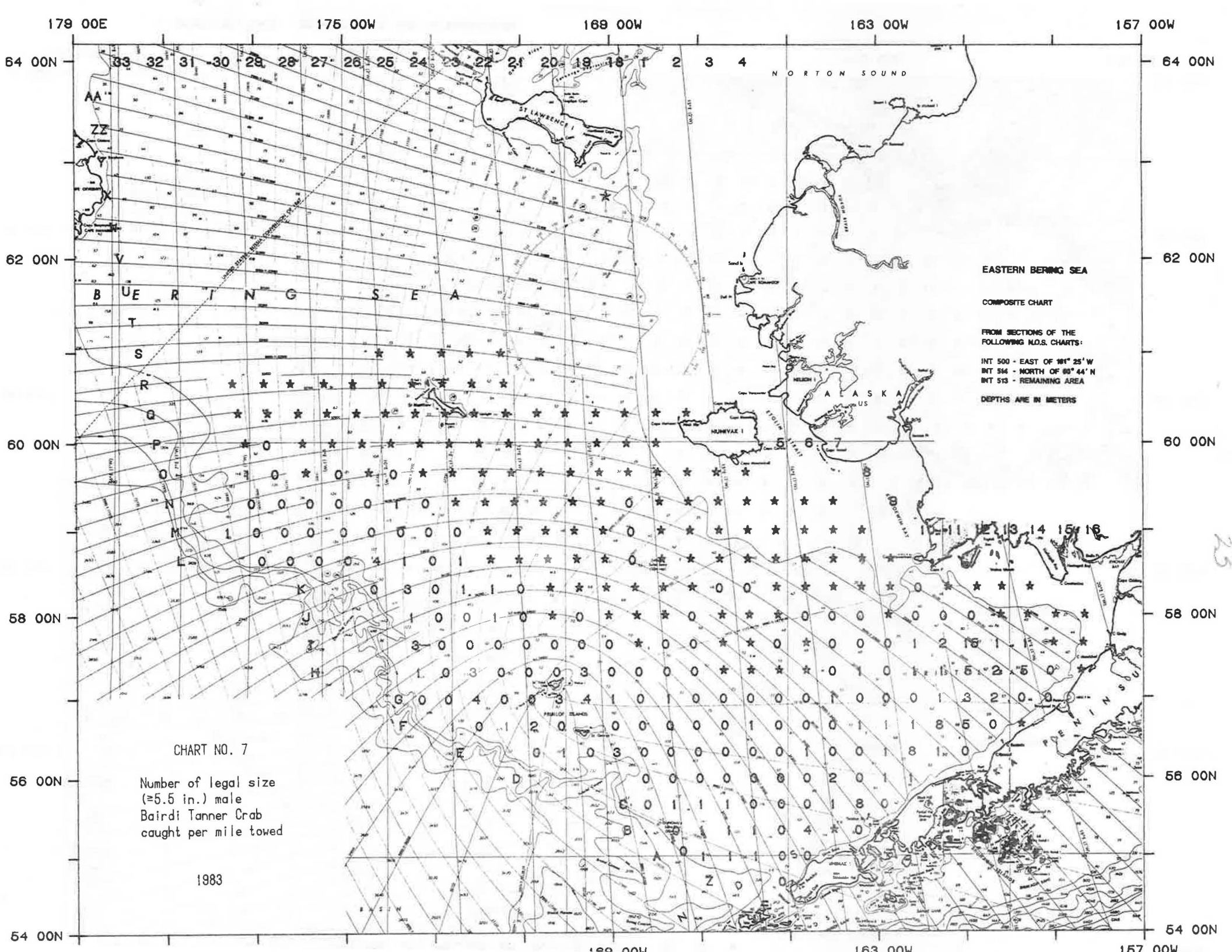
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157 00W
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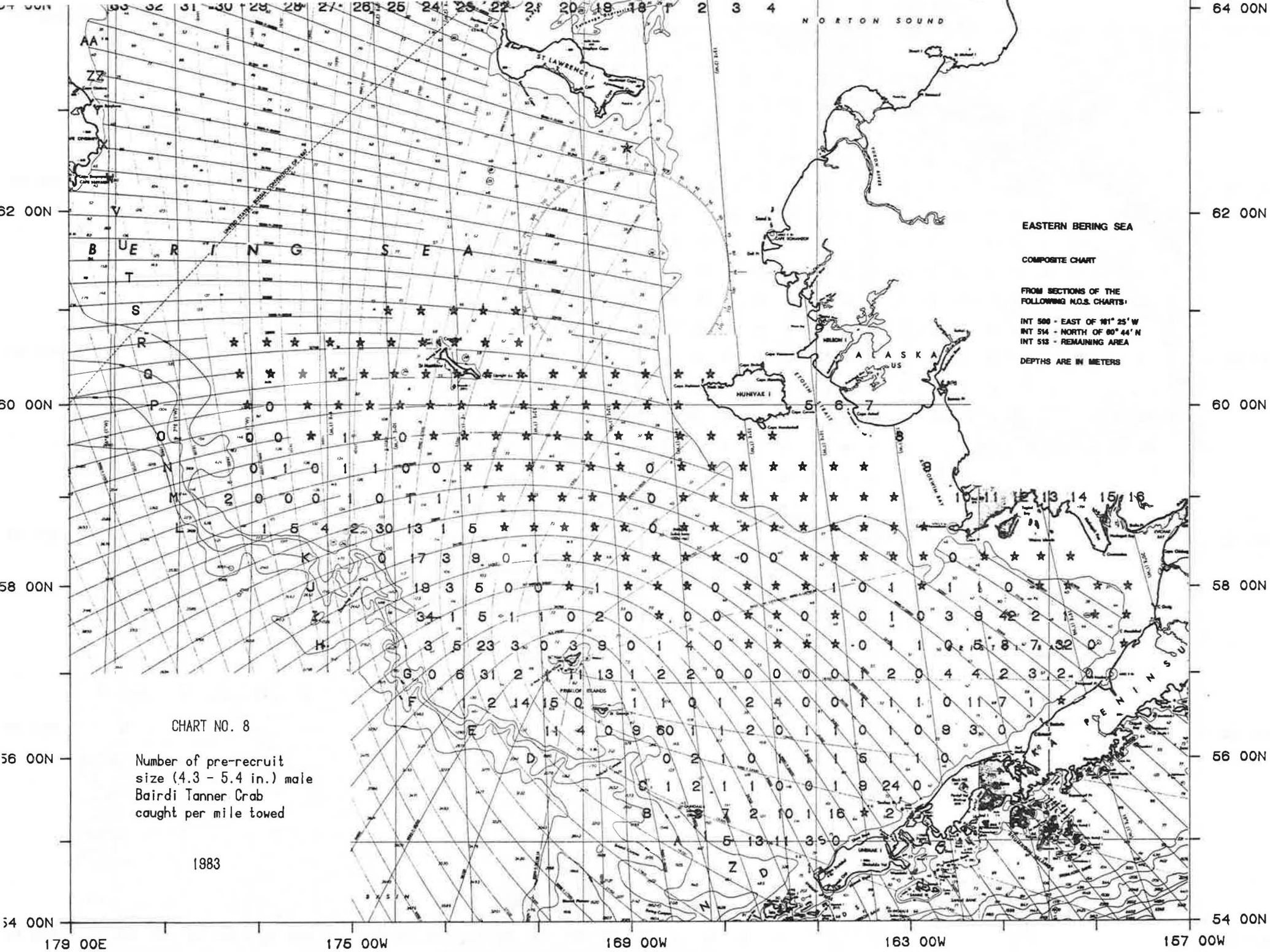
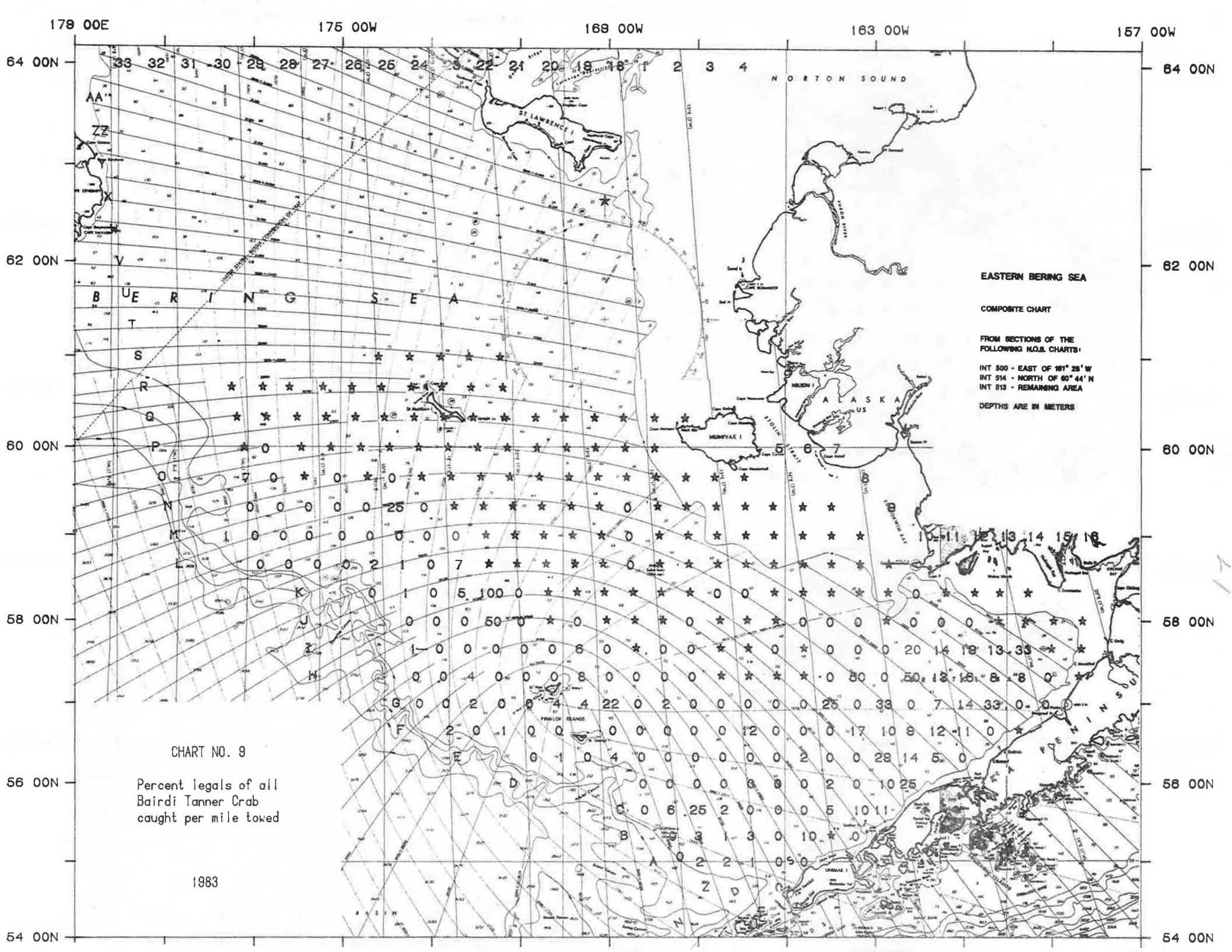
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
NUNIVAK I
HOOPER BAY
ALASKA
US
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 7
Number of legal size (≥5.5 in.) male Bairdi Tanner Crab caught per mile towed
1983



C. BAIRDI/MI-TOWED SEX=1 SIZE=2 PWF DATE=08/15/83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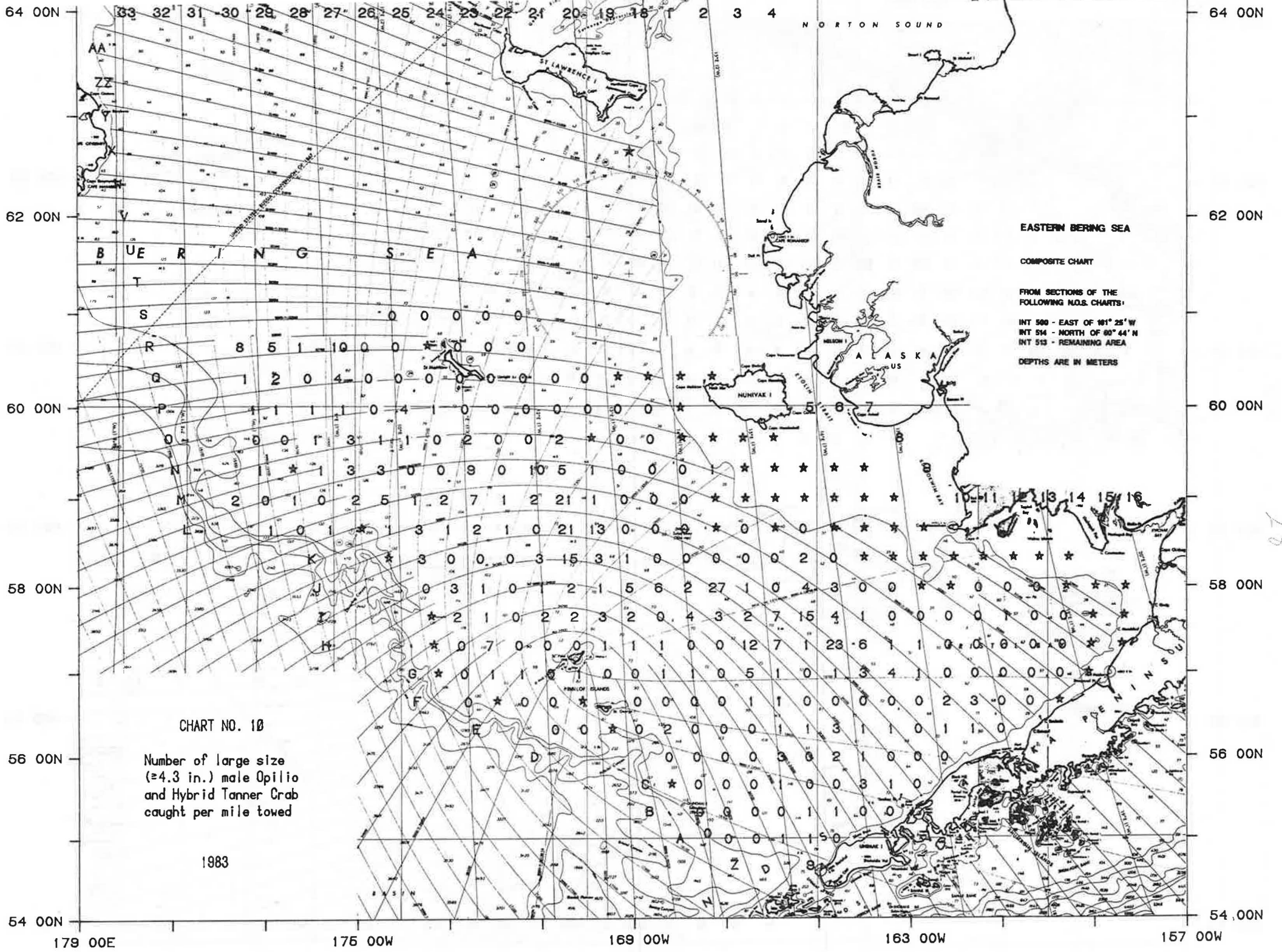
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
BERING SEA
ALASKA
US
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 28' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 9
Percent legals of all Bairdi Tanner Crab caught per mile towed
1983



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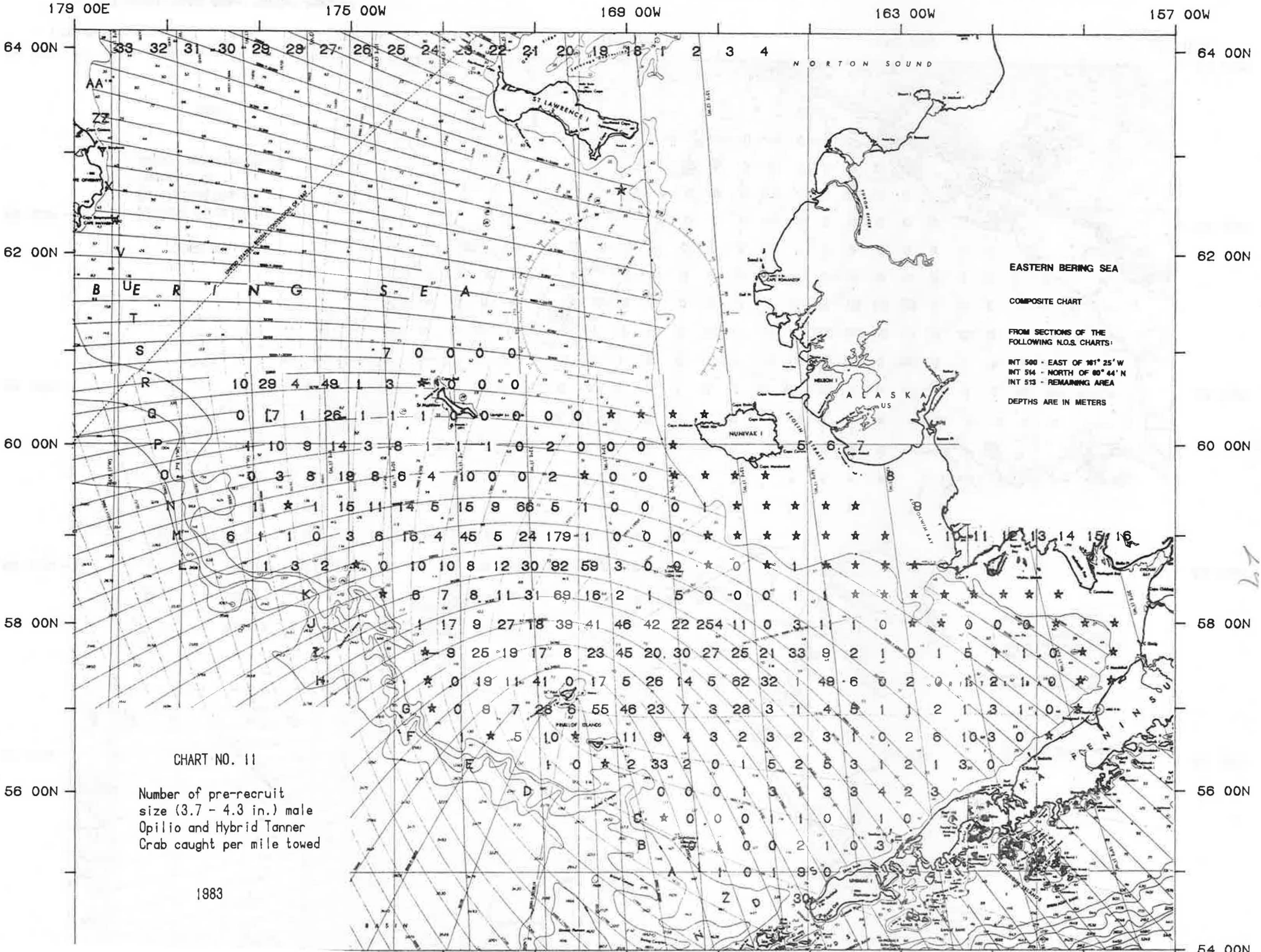
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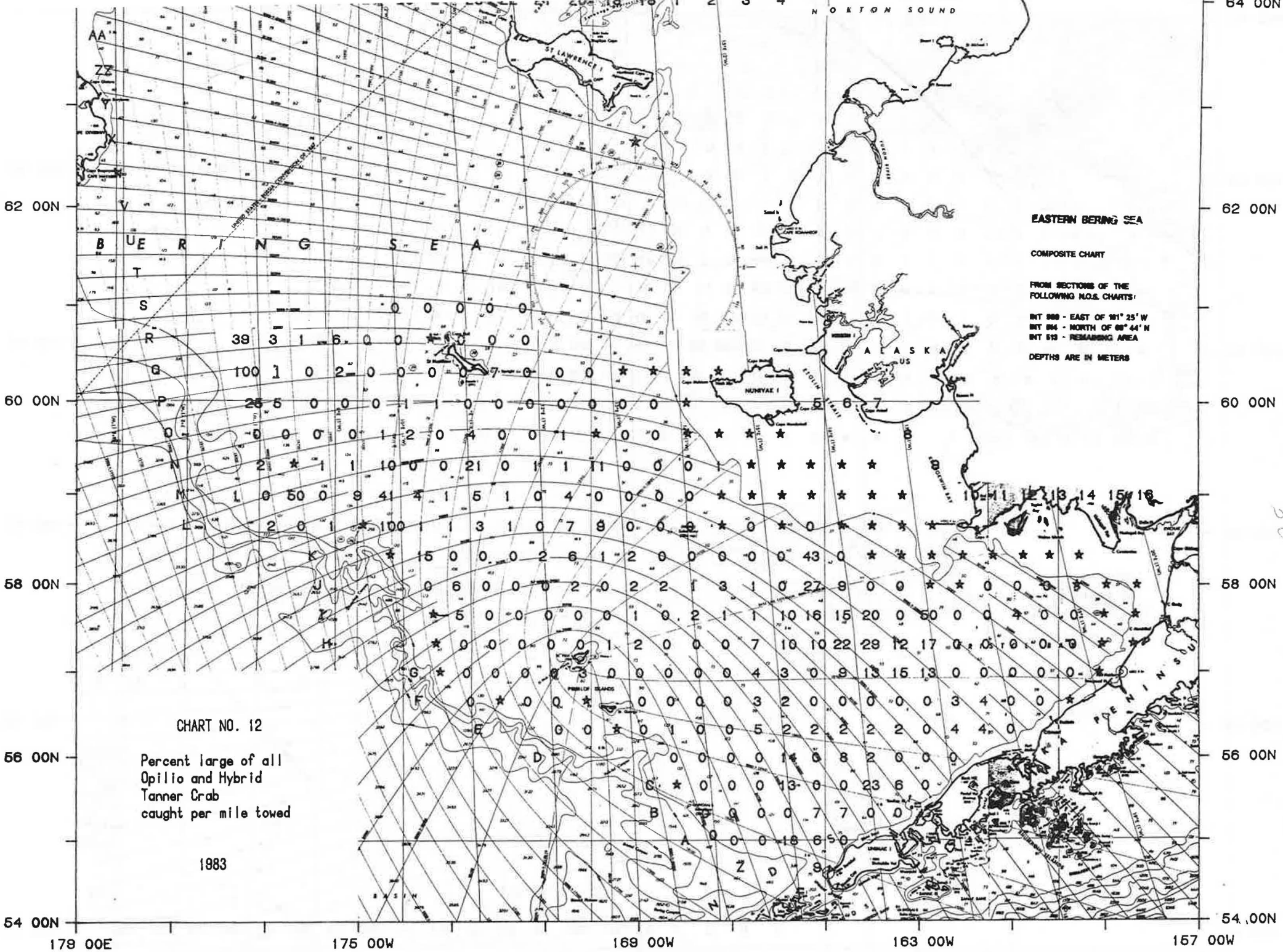
NORTON SOUND
ST LAWRENCE I
NUNIVAK I
HOOPER BAY
ALASKA
BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 11
Number of pre-recruit size (3.7 - 4.3 in.) male Opilio and Hybrid Tanner Crab caught per mile towed
1983



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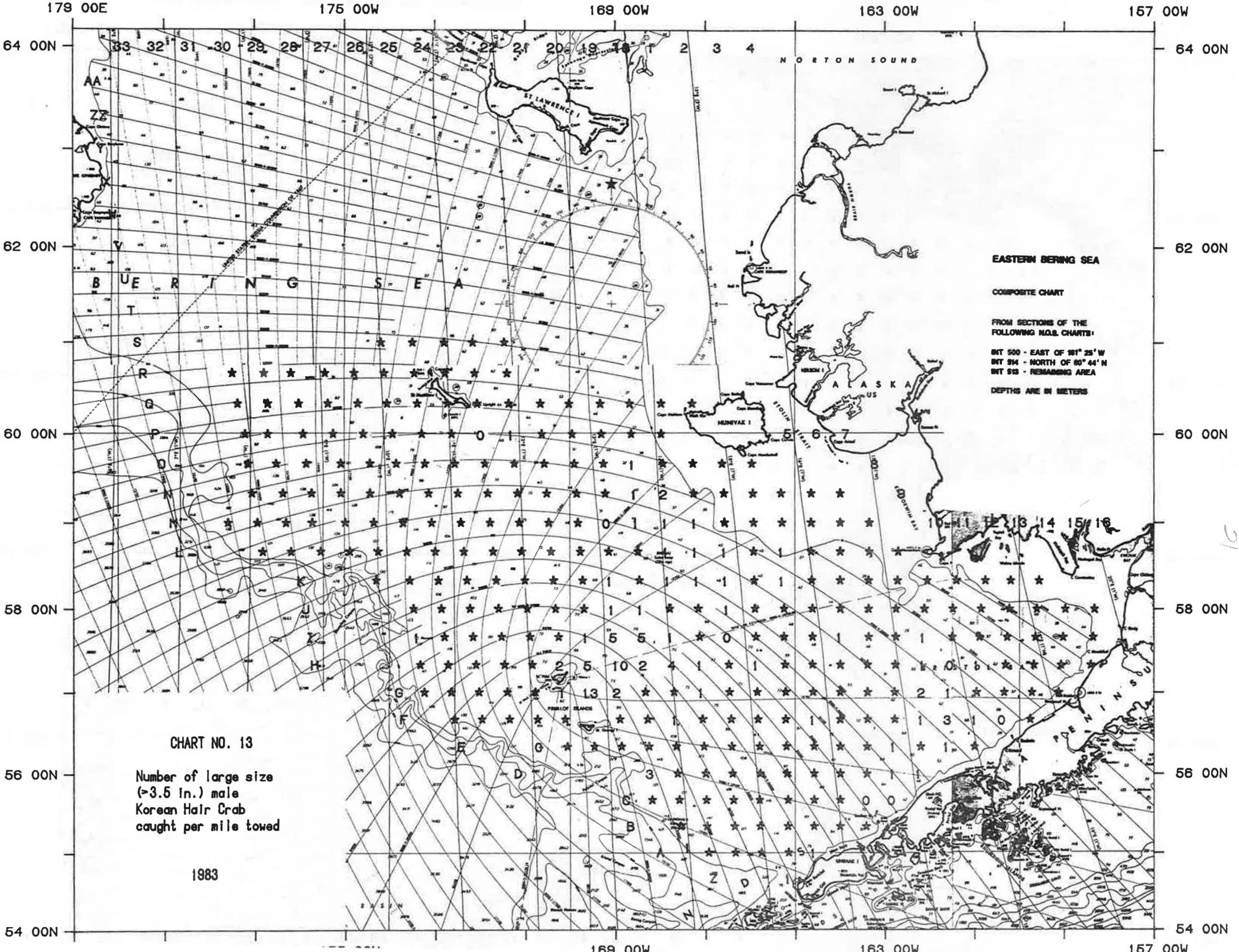
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NORTON SOUND
ST LAWRENCE I
BERING SEA
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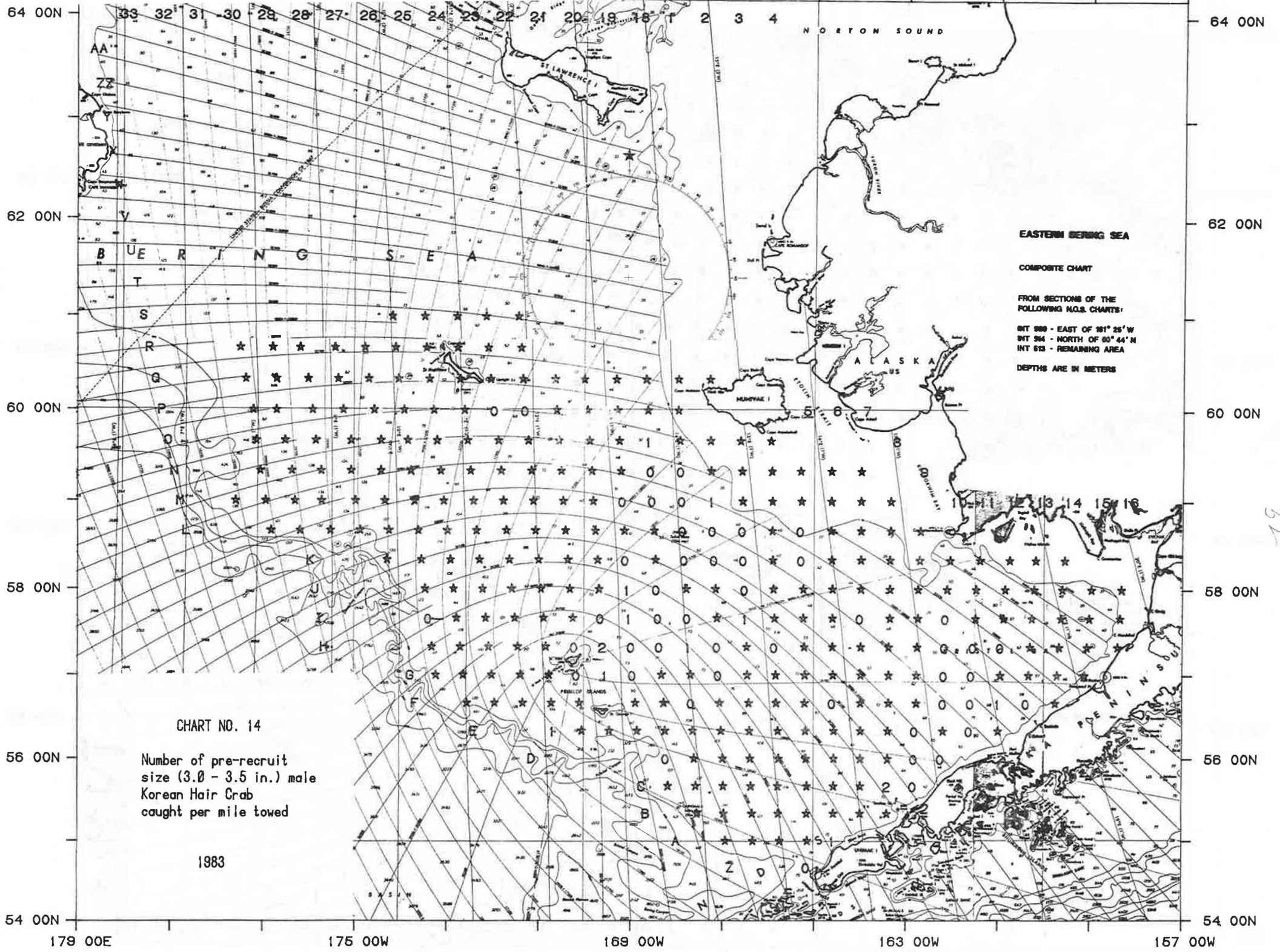
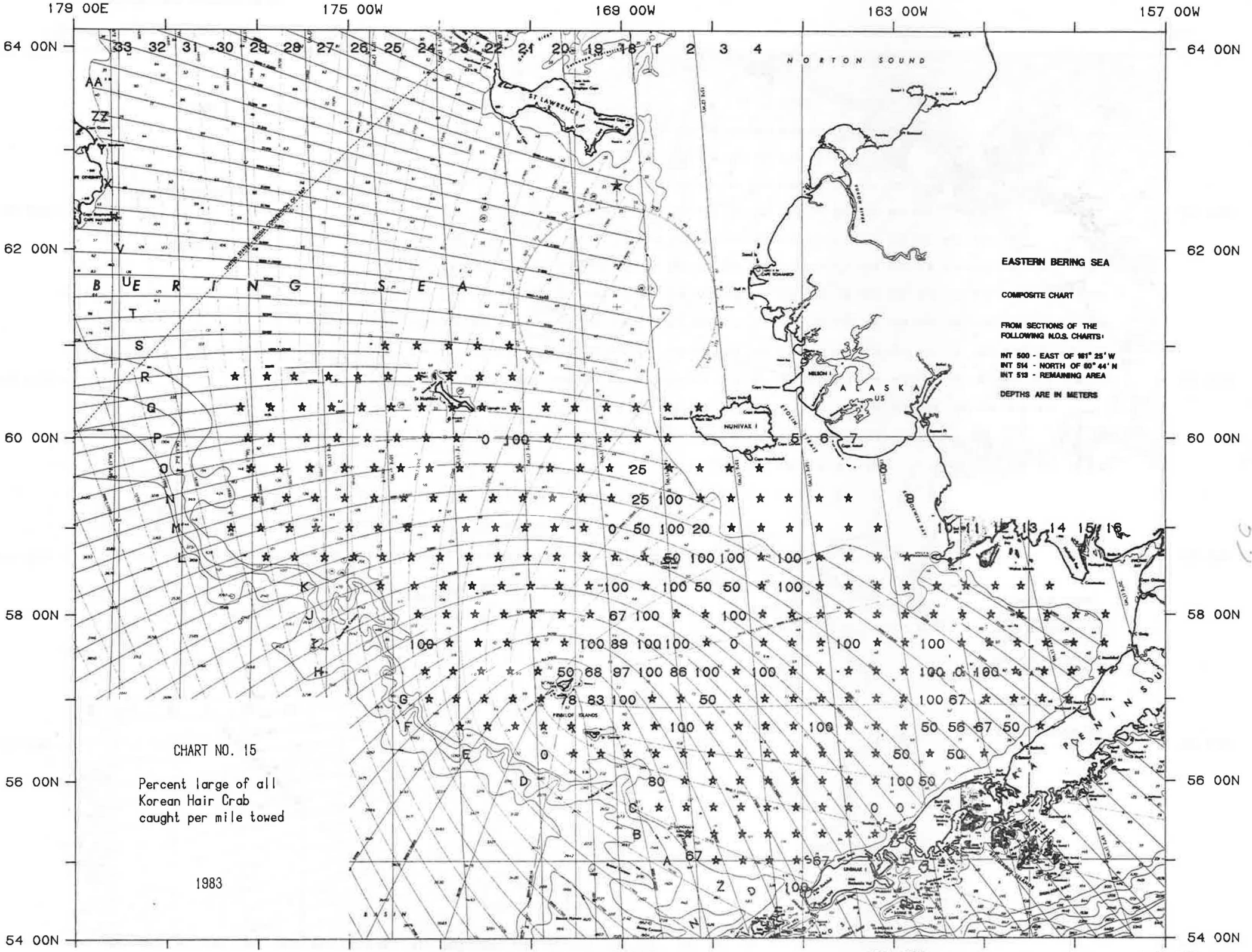
PRIBILOF ISLANDS
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 13
Number of large size (>3.5 in.) male Korean Hair Crab caught per mile towed
1983



HAIR CRAB/MI-TOWED SEX=1 SIZE=2 PWF DATE=08/15/83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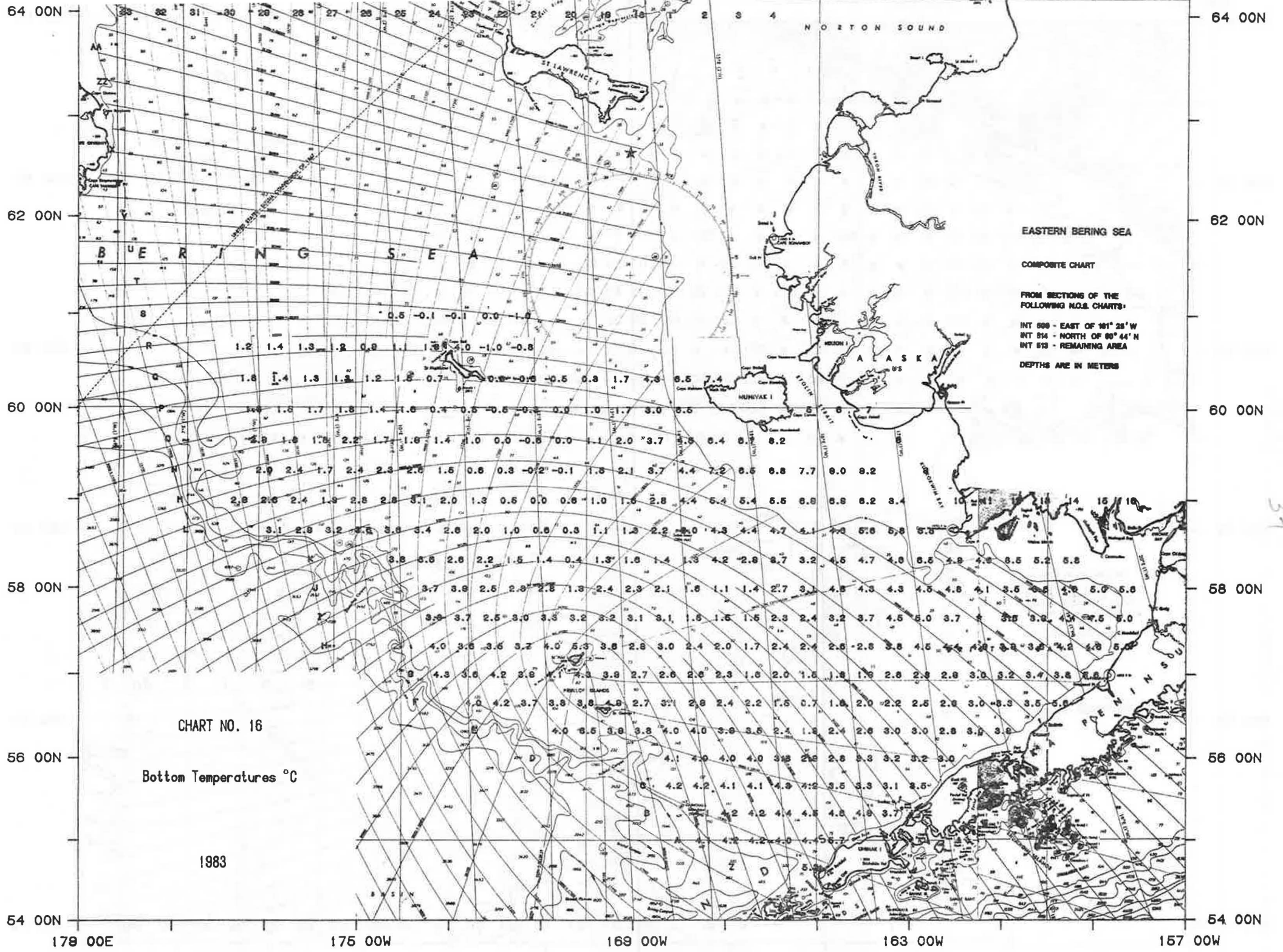
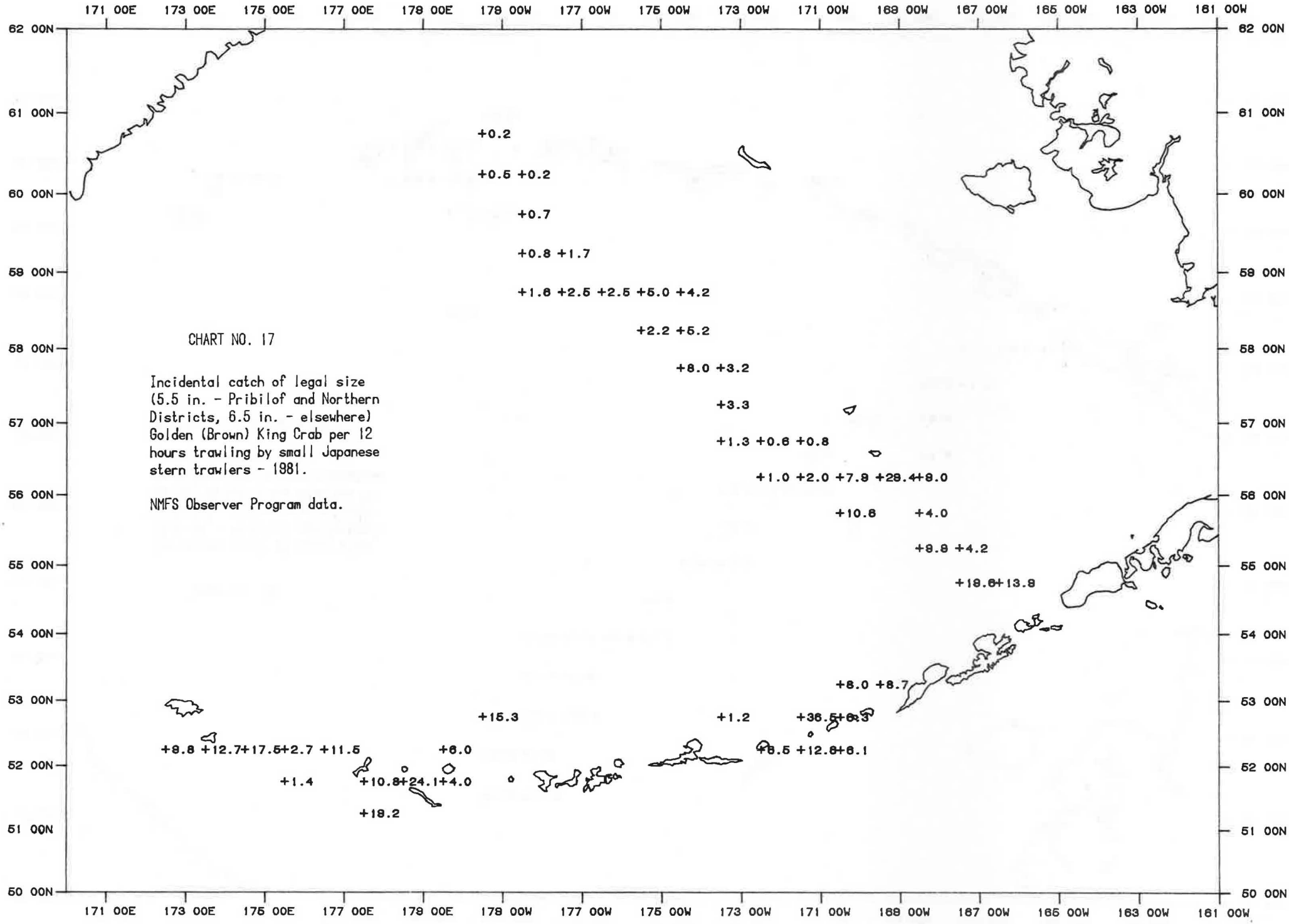
NELSON I
PRIBILOF ISLANDS
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 15
Percent large of all Korean Hair Crab caught per mile towed
1983



TEMPERATURE PWF DATE=09/19/83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61 00N
60 00N
59 00N
58 00N
57 00N
56 00N
55 00N
54 00N
53 00N
52 00N
51 00N
50 00N
CHART NO. 17
Incidental catch of legal size (5.5 in. - Pribilof and Northern Districts, 6.5 in. - elsewhere) Golden (Brown) King Crab per 12 hours trawling by small Japanese stern trawlers - 1981.
NMFS Observer Program data.
+0.2
+0.5 +0.2
+0.7
+0.8 +1.7
+1.6 +2.5 +2.5 +5.0 +4.2
+2.2 +5.2
+8.0 +3.2
+3.3
+1.3 +0.6 +0.8
+1.0 +2.0 +7.9 +29.4+9.0
+10.6 +4.0
+9.9 +4.2
+18.6+13.9
+8.0 +8.7
+15.3
+1.2
+36.5+6.3
+9.8 +12.7+17.5+2.7 +11.5
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+8.5 +12.6+6.1
+1.4
+10.8+24.1+4.0
+19.2

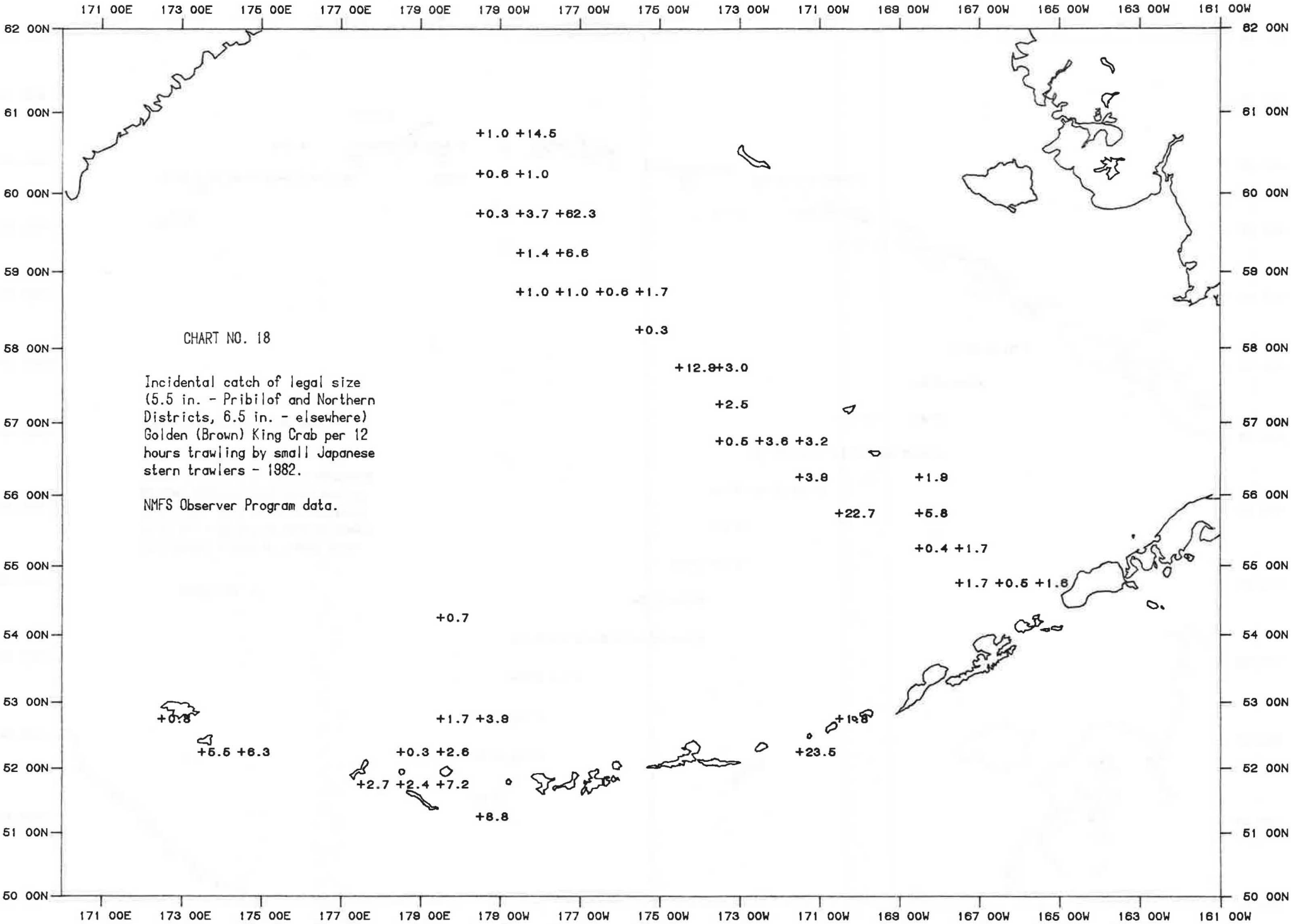

CHART NO. 18

Incidental catch of legal size (5.5 in. - Pribilof and Northern Districts, 6.5 in. - elsewhere) Golden (Brown) King Crab per 12 hours trawling by small Japanese stern trawlers - 1982.

NMFS Observer Program data.

TABLE 4 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PREPECRUIT	LEGAL	TOTAL	PERCENT LEGAL
B06	6/17	55-19	164-34	Y34427 Z47867	57	4.6	1.3	0.6	1.3	0.6	3.9	16.6
B08	6/16	55-20	163-24	Y34241 Z47425	29	3.7	0.7	0.0	0.0	0.0	0.7	0.0
C07	6/16	55-39	164-00	Y34274 Z47665	54	3.3	0.7	0.7	0.7	0.0	2.0	0.0
C08	6/15	55-39	163-24	Y34177 Z47436	45	3.1	2.0	0.0	0.7	0.0	2.7	0.0
C09	6/12	55-40	162-49	Y34079 Z47105	28	3.5	0.6	0.0	0.0	0.0	0.6	0.0
D07	6/16	56-00	164-00	Y34196 Z47674	50	3.3	0.0	2.0	1.3	0.0	3.3	0.0
D08	6/15	56-00	163-23	Y34094 Z47436	50	3.2	0.0	0.0	0.7	0.0	0.7	0.0
D09	6/13	55-59	162-49	Y34005 Z47207	44	3.2	0.7	0.7	0.0	0.7	2.2	33.2
D10	6/11	55-59	162-15	Y33916 Z46985	38	3.0	1.4	0.7	0.0	0.0	2.1	0.0
E08	6/15	56-20	163-24	Y34010 Z47439	48	3.0	0.0	0.0	0.6	0.0	0.6	0.0
E09	6/13	56-19	162-47	Y33912 Z47193	44	3.0	0.0	0.8	0.0	0.8	1.5	50.3
E11	6/12	56-20	161-35	Y33721 Z46717	36	3.0	0.7	0.7	1.3	0.0	3.4	0.0
E12	6/11	56-20	160-59	Y33633 Z46479	31	3.9	49.2	54.4	1.9	0.0	105.5	0.0
F08	6/15	56-40	163-23	Y33910 Z47431	42	2.2	0.0	0.6	0.0	0.0	0.6	0.0
F09	6/13	56-39	162-47	Y33817 Z47189	40	2.5	0.0	0.8	0.8	0.0	1.6	0.0
F10	6/12	56-39	162-10	Y33721 Z46946	41	2.6	1.9	3.9	2.6	0.0	8.4	0.0
F11	6/12	56-40	161-35	Y33626 Z46707	50	3.0	0.8	1.5	1.5	0.0	3.8	0.0
F12	6/11	56-40	160-59	Y33538 Z46468	39	3.3	126.4	216.1	8.2	1.4	352.1	0.4
F13	6/ 8	56-39	160-21	Y33448 Z46212	31	3.5	0.0	0.0	0.6	0.0	0.6	0.0
F14	6/ 8	56-39	159-45	Y33369 Z45974	19	5.6	0.0	0.0	1.4	0.0	1.4	0.0
G02	6/25	57-00	167-04	Y34487 Z48911	42	2.3	0.0	0.0	2.1	1.4	3.5	40.0
G04	6/22	57-00	165-51	Y34247 Z48423	41	2.0	0.0	0.0	1.3	0.0	1.3	0.0
G06	6/18	56-59	164-35	Y34018 Z47910	39	1.8	0.0	0.0	1.4	0.0	1.4	0.0
G07	6/16	57-00	163-58	Y33904 Z47664	38	1.9	0.0	0.0	0.8	0.0	0.8	0.0
G08	6/14	57-00	163-24	Y33810 Z47433	37	2.6	0.6	1.9	5.1	0.6	8.2	7.7
G09	6/13	56-59	162-46	Y33713 Z47179	33	2.8	23.2	34.2	6.9	0.6	64.9	0.9
G10	6/12	56-59	162-11	Y33619 Z46946	35	2.9	19.5	87.3	15.7	0.6	123.0	0.5
G11	6/11	57-00	161-32	Y33516 Z46681	37	3.0	8.2	13.7	6.2	1.4	29.5	4.7
G12	6/10	57-00	160-57	Y33429 Z46448	35	3.2	3.2	4.5	1.3	0.0	8.9	0.0
G13	6/ 8	56-58	160-19	Y33349 Z46194	35	3.4	11.4	13.4	3.3	0.0	28.1	0.0
G14	6/ 8	56-59	159-42	Y33261 Z45945	30	3.8	6.3	9.8	1.4	0.0	17.4	0.0
G20	7/ 8	56-59	169-34	X18714 Y35027	34	3.5	1.3	0.0	0.0	0.0	1.3	0.0
G20	/	56-49	169-52	Y35102 Z49985			0.0	0.0	0.0	0.0	0.0	0.0
G21	7/ 8	57-00	170-08	X18689 Z50111	37	4.5	0.8	0.0	1.6	1.6	4.0	39.9
G21	/	56-49	170-28	X18542 Z50117			0.0	0.0	0.0	0.0	0.0	0.0
H02	6/25	57-20	167-06	Y34372 Z48911	40	2.0	0.0	0.0	1.3	0.0	1.3	0.0
H05	6/18	57-19	165-14	Y34016 Z48157	37	2.4	0.0	0.0	0.8	0.0	0.8	0.0
H06	6/18	57-19	164-35	Y33901 Z47903	37	2.6	0.0	0.6	0.6	0.0	1.3	0.0
H07	6/16	57-21	163-59	Y33788 Z47658	34	2.8	3.8	0.0	4.6	0.0	8.5	0.0
H08	6/14	57-20	163-23	Y33692 Z47421	30	3.8	9.3	8.7	7.4	0.6	26.0	2.4
H09	6/13	57-18	162-46	Y33602 Z47171	26	4.5	10.1	11.9	1.8	0.0	23.8	0.0
H10	6/12	57-19	162-09	Y33504 Z46925	28	4.4	6.5	14.4	6.5	0.0	27.4	0.0
H11	6/11	57-20	161-31	Y33398 Z46668	30	4.9	32.0	30.8	3.4	1.1	67.4	1.7
H12	6/10	57-20	160-56	Y33318 Z46436	33	3.9	3.3	13.3	12.6	0.7	29.8	2.2
H13	6/ 9	57-19	160-18	Y33233 Z46180	34	3.6	6.0	6.0	6.8	0.0	18.9	0.0

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH

[illegible] THE 1985 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
H14	6/ 8	57-18	159-40	Y33156 Z45929	31	4.2	43.9	41.8	4.8	0.0	90.5	0.0
H15	6/ 8	57-20	159-03	Y33066 Z45677	26	4.6	6.4	15.2	1.6	0.0	23.2	0.0
H20	7/ 9	57-19	169-36	Y34911 Z49901	35	2.7	2.0	0.0	0.0	0.7	2.7	24.9
H20	7/ 8	57-09	169-51	Y35040 Z50021	28	4.5	0.7	0.0	0.0	0.7	1.4	50.0
I01	7/ 1	57-39	167-45	Y34363 Z49128	38	1.8	0.8	0.0	0.0	0.0	0.8	0.0
I04	6/22	57-40	165-53	Y33995 Z48395	36	2.3	0.0	0.0	0.7	0.0	0.7	0.0
I05	6/19	57-39	165-14	Y33883 Z48136	34	2.4	0.0	0.0	0.7	0.7	1.4	50.0
I06	6/19	57-39	164-36	Y33773 Z47887	30	3.2	1.3	1.9	2.6	0.6	6.4	10.0
I07	6/16	57-40	164-00	Y33663 Z47646	28	3.7	3.5	0.0	1.7	0.0	5.2	0.0
I08	6/14	57-40	163-22	Y33561 Z47398	27	4.5	1.9	3.2	2.5	1.3	8.9	14.3
I09	6/14	57-39	162-44	Y33469 Z47146	24	5.0	0.6	2.5	0.0	0.0	3.1	0.0
I10	6/12	57-39	162-09	Y33380 Z46913	26	3.7	12.9	11.4	6.4	0.7	31.5	2.3
I11	6/11	57-40	161-29	Y33272 Z46645	29	.	54.0	41.1	3.2	0.6	98.9	0.6
I12	6/10	57-40	160-52	Y33188 Z46404	32	3.6	23.8	25.1	1.3	0.0	50.1	0.0
I13	6/ 9	57-40	160-16	Y33109 Z46159	30	3.9	12.1	13.6	2.3	1.5	29.4	5.1
I14	6/ 8	57-39	159-36	Y33029 Z45901	27	4.4	31.5	44.3	5.1	1.3	82.2	1.6
I15	6/ 7	57-41	159-00	Y32945 Z45659	25	4.5	0.0	0.0	0.7	0.0	0.7	0.0
I16	6/ 7	57-39	158-20	Y32877 Z45394	19	5.0	1.5	0.7	0.0	0.0	2.2	0.0
I19	/	57-29	169-15	Y34748 Z49730			0.0	0.0	0.0	0.0	0.0	0.0
I19	7/ 5	57-40	169-03	Y34606 Z49613	38	.	0.7	0.0	0.0	0.0	0.7	0.0
J05	6/19	57-59	165-15	Y33739 Z48113	27	3.1	0.7	0.7	0.7	0.0	2.1	0.0
J06	6/19	57-59	164-38	Y33633 Z47878	25	4.8	0.0	0.7	1.3	0.0	2.0	0.0
J08	6/14	58-00	163-23	Y33420 Z47381	25	4.3	2.7	2.0	3.3	1.3	9.4	14.3
J09	6/14	57-59	162-45	Y33337 Z47138	23	4.5	1.1	2.2	1.1	0.5	4.9	11.1
J10	6/13	57-59	162-07	Y33243 Z46890	22	4.8	5.6	10.0	3.7	0.6	19.9	3.1
J11	6/11	58-00	161-28	Y33142 Z46630	30	4.1	71.2	50.4	10.4	1.4	133.4	1.0
J12	6/10	58-00	160-51	Y33059 Z46389	26	3.5	11.7	7.8	6.5	0.6	26.5	2.4
J13	6/ 9	57-59	160-13	Y32985 Z46139	27	3.6	30.5	17.0	3.4	0.0	50.9	0.0
J14	6/ 9	57-59	159-35	Y32908 Z45893	24	4.6	1.4	1.4	0.0	0.7	3.4	19.9
J15	6/ 7	58-00	158-56	Y32826 Z45637	22	5.0	0.0	0.7	0.0	0.0	0.7	0.0
J16	6/ 7	57-59	158-19	Y32759 Z45339	18	5.6	34.3	37.2	0.0	0.0	71.5	0.0
J21	7/ 9	57-49	170-34	X18515 Y34646	43	2.3	0.0	0.0	0.0	0.7	0.7	100.0
J21	/	58-00	170-19	X18527 Y34515			0.0	0.0	0.0	0.0	0.0	0.0
K02	7/ 2	58-19	167-10	Y33898 Z48788	30	4.2	0.0	0.0	0.0	0.7	0.7	100.0
K03	6/22	58-20	166-32	Y33772 Z48547	27	2.9	0.8	0.0	1.6	0.0	2.3	0.0
K04	6/21	58-20	165-55	Y33671 Z48322	25	3.7	0.0	0.0	0.7	0.0	0.7	0.0
K05	6/19	58-18	165-19	Y33595 Z48101	25	3.2	0.0	0.0	0.0	0.7	0.7	100.0
K06	6/19	58-20	164-39	Y33473 Z47848	25	4.5	0.6	1.3	0.6	0.6	3.2	20.1
K07	6/15	58-20	163-59	Y33367 Z47594	22	4.7	1.3	0.0	3.1	0.6	5.0	12.5
K08	6/14	58-21	163-23	Y33271 Z47363	20	4.6	0.6	0.0	1.9	0.6	3.1	20.1
K09	6/14	58-19	162-43	Y33188 Z47106	18	6.5	0.0	0.7	0.7	0.0	1.4	0.0
K10	6/13	58-19	162-05	Y33096 Z46864	27	4.9	2.7	10.2	6.1	1.4	20.4	6.7
K11	6/11	58-19	161-23	Y33005 Z46594	19	4.6	2.5	2.5	5.0	0.0	10.0	0.0
K12	6/ 9	58-19	160-44	Y32917 Z46337	12	8.5	1.4	0.0	1.4	0.0	2.9	0.0
K13	6/10	58-14	160-05	Y32869 Z46087	15	5.2	0.6	0.0	0.6	0.6	1.9	33.3

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH

TABLE 4 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
K14	6/ 9	58-19	159-32	Y32778 Z45875	14	5.8	0.0	3.9	4.6	0.0	8.6	0.0
L01	7/ 1	58-39	167-51	Y33797 Z48940	26	3.0	0.0	0.0	1.5	0.0	1.5	0.0
L04	6/21	58-40	165-57	Y33498 Z48282	20	4.7	0.0	0.0	2.8	0.0	2.8	0.0
L05	6/19	58-39	165-17	Y33409 Z48046	22	4.1	0.0	0.0	0.0	0.7	0.7	100.0
L06	6/19	58-39	164-39	Y33311 Z47812	22	4.6	0.0	0.7	0.0	0.0	0.7	0.0
L08	6/13	58-40	163-22	Y33118 Z47336	18	5.8	0.0	0.6	1.3	0.0	1.9	0.0
L09	6/14	58-38	162-42	Y33037 Z47085	13	6.5	0.0	0.0	1.0	0.0	1.0	0.0
M03	6/21	59-00	166-35	Y33387 Z48436	18	5.4	0.0	0.7	0.0	0.0	0.7	0.0
M08	6/13	58-59	163-20	Y32954 Z47296	12	3.4	0.7	0.0	0.7	0.0	1.4	0.0
N01	7/ 2	59-19	167-55	Y33357 Z48776	21	4.4	0.0	0.8	0.0	0.0	0.8	0.0
N18	7/ 3	59-20	168-32	Y33403 Z48937	24	3.7	0.0	0.6	0.0	0.0	0.6	0.0
O01	7/ 2	59-39	167-57	Y33127 Z48689	19	4.5	0.0	0.0	0.7	0.7	1.4	50.3
O03	6/21	59-40	166-37	Y32973 Z48306	15	6.7	0.0	0.7	0.0	0.0	0.7	0.0
P19	7/ 3	60-01	169-18	Y32976 Z48913	25	1.7	0.0	0.0	0.0	0.7	0.7	100.0
Q19	7/ 3	60-20	169-17	Y32744 Z48814	18	1.7	0.0	0.6	0.0	0.0	0.6	0.0

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
G19	7/ 6	56-50	169-09	Y34971 Z49732	45	2.8	0.0	0.0	0.0	0.7	0.7	100.0
G19	7/ 6	57-00	168-57	Y34886 Z49664	44	2.5	0.0	0.0	0.7	0.0	0.7	0.0
G20	7/ 8	56-59	169-34	X18714 Y35027	34	3.5	19.1	0.7	0.0	0.7	20.4	3.2
G20	7/ 8	56-49	169-52	Y35102 Z49985	41	4.2	0.7	0.0	0.0	1.3	2.0	66.7
G21	/	56-49	170-28	X18542 Z50117			0.0	0.0	0.0	0.0	0.0	0.0
G21	7/ 8	57-00	170-08	X18689 Z50111	37	4.5	33.2	3.2	1.6	1.6	39.5	4.0
H01	6/25	57-19	167-43	Y34508 Z49157	42	2.4	0.0	0.8	0.0	0.0	0.8	0.0
H18	7/ 5	57-10	168-38	Y34760 Z49532	43	2.8	0.6	0.0	0.0	0.6	1.3	50.0
H18	7/ 5	57-21	168-21	Y34631 Z49408	42	3.1	0.7	0.7	1.3	0.0	2.7	0.0
H19	7/ 6	57-20	168-59	0 0	39	3.1	1.4	0.0	0.0	0.0	1.4	0.0
H19	7/ 6	57-10	169-10	Y34877 Z49744	42	2.6	0.0	0.0	0.0	0.8	0.8	100.0
H20	7/ 9	57-19	169-36	Y34911 Z49901	35	2.7	4.0	0.7	0.7	1.3	6.7	20.0
H20	7/ 8	57-09	169-51	Y35040 Z50021	28	4.5	269.9	5.8	4.3	4.3	284.4	1.5
H21	7/ 8	57-06	170-28	X18652 Y35112	27	5.8	9.1	6.1	3.0	1.0	19.3	5.2
H21	7/ 9	57-20	170-14	X18704 Y34996	32	4.7	1.4	0.0	0.7	0.0	2.1	0.0
I18	7/ 5	57-30	168-39	Y34615 Z49498	40	3.2	1.3	0.0	0.0	0.0	1.3	0.0
I18	7/ 5	57-40	168-25	Y34484 Z49376	40	3.0	1.3	0.6	1.9	3.2	7.0	45.5
I19	7/ 6	57-29	169-15	Y34748 Z49730	39	3.1	0.9	0.0	0.0	0.9	1.7	50.0
I19	7/ 5	57-40	169-03	Y34606 Z49613	38	.	1.4	0.7	1.4	0.7	4.2	16.7
I20	7/ 9	57-39	169-40	Y34716 Z49822	40	3.1	0.0	0.6	1.3	2.0	3.9	50.0
I20	7/ 9	57-29	169-59	Y34873 Z49977	38	3.2	1.9	1.3	1.9	3.2	8.3	38.5
I21	7/ 9	57-39	170-16	X18620 Y34769	41	2.7	0.0	0.0	0.0	2.4	2.4	100.0
I21	7/ 9	57-29	170-33	X18592 Y34882	42	3.4	0.0	0.0	0.0	2.4	2.4	100.0
I22	7/14	57-40	170-53	X18458 Y34736	48	3.3	1.3	0.0	0.0	0.7	2.0	33.5
I24	7/15	57-39	172-08	X18035 Y34616	61	2.5	0.0	0.0	0.0	0.7	0.7	100.0
J01	7/ 1	57-59	167-47	Y34194 Z49081	37	1.6	0.0	0.0	0.6	0.0	0.6	0.0
J18	7/ 4	57-50	168-38	Y34427 Z49417	40	2.5	0.0	0.0	0.0	0.6	0.6	100.0
J18	7/ 4	58-00	168-24	Y34288 Z49293	39	1.7	0.0	0.0	0.6	0.0	0.6	0.0
J19	/	58-01	169-03	Y34386 Z49511			0.0	0.0	0.0	0.0	0.0	0.0
J19	7/ 4	57-50	169-13	Y34524 Z49619	35	2.7	2.8	2.8	7.0	3.5	16.0	21.8
J20	7/10	57-59	169-40	Y34482 Z49700	40	2.4	0.0	0.0	0.0	0.7	0.7	100.0
J20	7/ 9	57-49	169-59	Y34625 Z49841	41	1.7	0.0	0.0	0.7	2.8	3.5	80.0
J21	7/ 9	57-49	170-34	X18515 Y34646	43	2.3	0.0	0.0	2.7	2.7	5.3	50.0
J21	7/10	58-00	170-19	X18527 Y34515	42	1.7	0.0	0.0	0.0	1.5	1.5	100.0
J22	7/13	58-00	170-59	X18372 Y34506	49	2.8	0.0	0.0	0.0	2.0	2.0	100.0
J23	7/14	58-01	171-33	X18205 Y34457	55	2.8	0.0	0.0	0.0	0.8	0.8	100.0
K21	7/10	58-19	170-22	X18443 Y34281	42	.4	0.0	0.0	0.0	0.8	0.8	100.0
K22	7/13	58-20	171-02	X18294 Y34267	47	1.4	0.0	0.0	0.0	1.3	1.3	100.0
K23	7/13	58-21	171-38	X18137 Y34230	53	1.5	0.0	0.0	0.0	0.8	0.8	100.0
K24	7/16	58-19	172-15	X17955 Y34218	58	2.2	0.6	0.0	0.0	0.0	0.6	0.0
L20	7/10	58-39	169-46	Y34004 Z49474	38	1.1	0.7	0.0	0.0	0.0	0.7	0.0
N02	7/16	59-29	172-48	X17675 Y33435	52	1.2	0.0	0.0	0.6	3.2	3.9	83.5
N24	7/16	59-19	172-30	X17771 Y33554	50	.6	0.0	0.0	0.0	0.7	0.7	100.0
N25	7/16	59-20	173-08	X17605 Y33519	56	1.5	0.0	0.0	0.0	2.2	2.2	100.0
N26	7/28	59-19	173-46	X17430 Y33507	62	2.6	0.0	0.0	0.0	0.6	0.6	100.0

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH FOR AREA S. OF 58:39N
PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH FOR AREA N. OF 58:39N

TABLE 5 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE BLUE KING CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
025	7/16	59-30	173-24	X17519 Y33395	56	1.5	0.0	0.0	0.7	1.5	2.2	66.8
025	7/17	59-44	173-14	X17542 Y33250	51	1.3	0.0	0.0	6.5	5.8	12.4	47.1
026	7/28	59-38	173-51	X17391 Y33308	59	1.9	0.0	0.0	0.7	3.5	4.2	83.2
027	7/29	59-40	174-26	X17232 Y33272	64	1.7	0.0	0.0	0.7	0.0	0.7	0.0
P20	7/11	59-59	169-57	Y33039 Z49056	31	1.0	0.0	0.0	0.6	0.0	0.6	0.0
P24	7/17	59-58	172-42	X17647 Y33119	37	.0	0.0	0.0	0.0	2.8	2.8	100.0
P24	7/17	59-50	172-51	X17626 Y33200	45	1.0	0.0	0.0	0.7	1.4	2.0	66.5
P25	7/17	59-50	173-33	X17454 Y33186	53	.7	0.0	0.0	0.0	2.8	2.8	100.0
P25	7/17	59-59	173-20	X17497 Y33088	41	.0	0.6	0.0	0.0	1.9	2.6	74.9
P26	7/28	59-49	174-13	X17283 Y33185	60	1.8	0.0	0.0	3.5	2.8	6.3	44.4
P26	7/29	59-59	173-55	X17349 Y33087	55	1.4	0.0	0.0	2.6	10.3	12.9	80.0
P27	7/29	59-59	174-35	X17180 Y33078	60	1.4	0.0	0.0	0.0	1.4	1.4	100.0
Q23	7/12	60-09	172-16	X17722 Y32987	32	2.8	0.0	1.7	6.0	9.4	17.1	55.0
Q23	7/12	60-21	172-03	X17740 Y32850	34	-1.0	0.0	2.1	0.7	2.1	4.9	42.8
Q24	7/17	60-10	172-59	X17558 Y32978	34	.7	39.0	21.6	4.3	18.8	83.7	22.4
Q25	7/17	60-10	173-37	X17410 Y32967	42	.0	2.6	1.3	0.0	2.6	6.5	40.0
Q25	7/17	60-20	173-22	X 0 Y 0	33	1.4	50.1	16.0	28.1	19.1	113.3	16.8
Q26	7/29	60-09	174-19	X17239 Y32976	56	1.6	0.0	0.7	2.1	11.1	13.8	80.0
Q26	7/29	60-19	174-04	X17290 Y32878	51	1.3	0.0	0.0	1.3	0.0	1.3	0.0
Q27	7/29	60-19	174-42	X17136 Y32874	56	1.2	0.0	0.0	0.7	0.0	0.7	0.0
Q28	7/30	60-20	175-23	X16966 Y32847	63	1.3	0.0	0.0	0.0	0.7	0.7	100.0
R25	7/17	60-39	173-26	X17414 Y32656	36	1.9	1.4	5.7	4.3	2.8	14.2	20.0
R26	7/29	60-39	174-07	X17259 Y32668	49	1.1	0.0	0.0	0.0	0.7	0.7	100.0
R27	7/29	60-39	174-45	X17112 Y32672	54	.9	0.0	0.0	0.7	0.0	0.7	0.0
R28	7/30	60-40	175-25	X16952 Y32655	61	1.2	0.0	0.0	0.0	0.7	0.7	100.0
S24	7/18	60-58	172-48	X17513 Y32435	37	.0	0.0	0.7	0.0	0.0	0.7	0.0
S25	7/17	60-58	173-29	X17374 Y32446	41	.0	0.0	0.0	0.7	0.0	0.7	0.0
S26	7/29	60-59	174-11	X17224 Y32462	47	.5	0.0	0.0	0.0	0.7	0.7	100.0

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH FOR AREA S. OF 58:39N
PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH FOR AREA N. OF 58:39N

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
A01	6/26	55-03	167-16	Y34864 Z48795	100	4.1	22.3	6.2	0.8	0.0	29.2	0.0
A02	6/27	55-00	166-55	X18240 Z48677	87	4.2	25.5	32.6	5.2	1.3	64.6	2.0
A03	6/24	54-59	166-20	Y34742 Z48479	81	4.2	44.8	21.0	16.4	1.8	84.1	2.2
A04	6/24	55-00	165-46	0 0	73	4.0	98.7	17.1	10.8	1.3	127.8	1.0
A05	6/17	54-59	165-09	Y34566 Z48054	62	4.4	19.9	17.8	3.4	0.0	41.1	0.0
A06	6/17	55-03	164-30	Y34459 Z47826	34	5.7	1.4	0.0	0.0	0.0	1.4	0.0
B01	6/26	55-20	167-31	Y34877 Z48928	84	4.1	37.2	11.1	11.1	0.0	59.4	0.0
B02	6/27	55-19	166-57	Y34797 Z48735	78	4.2	35.4	8.7	6.7	1.3	52.2	2.6
B03	6/24	55-20	166-19	Y34698 Z48512	75	4.2	32.3	23.5	2.9	0.7	59.5	1.2
B04	6/24	55-21	165-46	Y34612 Z48315	67	4.4	26.5	11.0	9.7	1.3	48.6	2.7
B05	6/17	55-19	165-09	Y34520 Z48086	63	4.5	5.5	8.3	1.4	0.0	15.2	0.0
B06	6/17	55-19	164-34	Y34427 Z47867	57	4.6	9.6	8.4	16.1	3.9	37.9	10.2
B08	6/16	55-20	163-24	Y34241 Z47425	29	3.7	27.2	27.9	2.0	0.0	57.0	0.0
C01	6/26	55-41	167-33	Y34848 Z48988	77	4.2	9.5	10.9	2.2	1.5	24.0	6.1
C02	6/26	55-40	167-00	Y34760 Z48788	75	4.1	1.3	0.0	0.6	0.6	2.6	25.2
C03	6/23	55-40	166-21	Y34657 Z48558	71	4.1	22.7	14.3	1.7	0.8	39.4	2.1
C04	6/23	55-40	165-47	Y34562 Z48345	66	4.3	127.7	142.7	0.0	0.0	270.4	0.0
C05	6/17	55-39	165-12	Y34468 Z48123	61	4.2	43.6	32.9	0.0	0.0	76.5	0.0
C06	6/17	55-39	164-34	Y34366 Z47884	55	3.5	24.5	34.7	1.4	0.0	60.5	0.0
C07	6/16	55-39	164-00	Y34274 Z47665	54	3.3	11.4	6.7	8.7	1.3	28.1	4.8
C08	6/15	55-39	163-24	Y34177 Z47436	45	3.1	34.4	10.8	24.3	8.1	77.5	10.4
C09	6/12	55-40	162-49	Y34079 Z47105	28	3.5	3.1	1.2	0.6	0.6	5.5	11.2
C18	7/ 7	55-40	168-11	0 0	76	4.2	1.3	2.0	0.7	0.0	4.0	0.0
D01	6/25	56-01	167-34	Y34811 Z49047	76	4.0	3.4	5.0	2.5	0.0	10.9	0.0
D02	6/26	56-00	166-59	Y34714 Z48832	75	4.0	3.9	5.1	1.3	0.0	10.3	0.0
D03	6/23	56-00	166-22	Y34603 Z48595	69	4.0	10.4	7.8	0.0	0.0	18.1	0.0
D04	6/23	56-00	165-47	Y34503 Z48374	59	3.8	19.9	21.2	0.7	0.0	41.8	0.0
D05	6/17	55-59	165-10	Y34398 Z48134	53	2.9	37.8	26.3	0.8	0.0	65.0	0.0
D06	6/17	55-59	164-33	Y34294 Z47895	52	2.8	74.6	87.3	0.6	0.0	162.6	0.0
D07	6/16	56-00	164-00	Y34196 Z47674	50	3.3	43.8	44.4	4.6	2.0	94.8	2.1
D08	6/15	56-00	163-23	Y34094 Z47436	50	3.2	50.2	52.3	1.4	0.0	103.8	0.0
D09	6/13	55-59	162-49	Y34005 Z47207	44	3.2	3.7	2.2	0.7	0.7	7.3	10.0
D10	6/11	55-59	162-15	Y33916 Z46985	38	3.0	0.7	1.4	0.0	0.7	2.8	25.0
D18	7/ 7	56-00	168-12	X18468 Z49269	84	4.1	7.6	12.0	0.0	0.0	19.6	0.0
E01	6/25	56-21	167-38	Y34770 Z49108	72	4.0	3.3	3.3	0.7	0.0	7.3	0.0
E02	6/26	56-20	167-01	Y34657 Z48873	64	3.9	4.0	4.0	0.7	0.0	8.8	0.0
E03	6/23	56-20	166-23	Y34538 Z48626	58	3.5	27.0	19.6	2.5	0.0	49.1	0.0
E04	6/23	56-20	165-46	Y34426 Z48385	51	2.4	15.1	11.0	0.0	0.0	26.0	0.0
E05	6/18	56-19	165-12	Y34327 Z48160	48	1.9	73.3	78.5	0.7	0.0	152.6	0.0
E06	6/18	56-19	164-34	Y34214 Z47906	49	2.4	14.4	18.9	0.6	0.6	34.6	1.9
E07	6/16	56-20	163-59	Y34109 Z47674	47	2.6	10.5	12.5	0.0	0.0	23.0	0.0
E08	6/15	56-20	163-24	Y34010 Z47439	48	3.0	19.4	16.2	1.3	0.0	36.9	0.0
E09	6/13	56-19	162-47	Y33912 Z47193	44	3.0	3.0	0.8	0.0	1.5	6.1	25.0
E10	6/11	56-21	162-13	Y33818 Z46968	47	2.8	35.4	5.3	8.7	8.0	57.5	14.0
E11	6/12	56-20	161-35	Y33721 Z46717	36	3.0	6.7	2.0	3.4	0.7	12.8	5.3

NOTE: PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

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TABLE 6 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
E12	6/11	56-20	160-59	Y33633 Z46479	31	3.9	0.6	0.0	0.0	0.0	0.6	0.0
E18	7/ 6	56-20	168-14	0 0	84	4.0	60.9	81.6	60.2	0.0	202.7	0.0
E19	7/ 7	56-20	168-53	Y34990 Z49556	73	3.8	62.3	21.5	11.7	4.3	99.7	4.3
E20	7/ 7	56-21	169-29	X18493 Z49757	75	3.9	15.9	21.2	0.0	0.0	37.1	0.0
E21	7/ 7	56-19	170-02	Y35124 Z49890	61	3.5	27.4	17.6	4.9	0.7	50.6	1.4
E22	7/14	56-20	170-41	0 0	67	4.0	71.8	27.4	11.1	0.0	110.3	0.0
F01	6/25	56-40	167-38	Y34701 Z49134	58	2.9	2.4	0.6	0.6	0.0	3.6	0.0
F02	6/26	56-41	167-02	Y34579 Z48897	53	2.4	21.4	26.1	1.3	0.0	48.8	0.0
F03	6/23	56-40	166-25	Y34461 Z48650	48	2.2	22.5	19.7	2.1	0.0	45.0	0.0
F04	6/23	56-40	165-49	Y34345 Z48412	44	1.5	1.3	3.2	4.5	1.3	10.2	12.5
F05	6/18	56-39	165-13	Y34238 Z48166	42	.7	5.8	13.0	0.0	0.0	18.8	0.0
F06	6/18	56-39	164-35	Y34124 Z47914	42	1.6	1.9	1.3	0.0	0.0	3.2	0.0
F07	6/16	56-40	164-00	Y34016 Z47677	42	2.0	1.3	1.9	1.3	0.0	4.5	0.0
F08	6/15	56-40	163-23	Y33910 Z47431	42	2.2	4.5	1.3	0.6	1.3	7.8	16.6
F09	6/13	56-39	162-47	Y33817 Z47189	40	2.5	5.5	0.8	0.8	0.8	7.8	10.0
F10	6/12	56-39	162-10	Y33721 Z46946	41	2.6	12.3	1.3	0.0	1.3	14.9	8.7
F11	6/12	56-40	161-35	Y33626 Z46707	50	3.0	58.6	0.8	13.7	9.9	83.0	11.9
F12	6/11	56-40	160-59	Y33538 Z46468	39	3.3	28.5	1.4	6.8	4.8	41.5	11.5
F13	6/ 8	56-39	160-21	Y33448 Z46212	31	3.5	0.6	0.6	1.2	0.0	2.5	0.0
F18	7/ 6	56-40	168-17	0 0	60	3.1	0.0	1.5	0.7	0.0	2.2	0.0
F19	7/ 7	56-39	168-55	Y34955 Z49621	56	2.7	0.0	0.8	0.8	0.0	1.6	0.0
F21	7/ 8	56-39	170-04	Y35126 Z49994	53	3.8	443.0	446.7	0.0	0.0	889.7	0.0
F22	7/14	56-40	170-45	X18398 Y35126	63	3.8	519.5	248.1	15.3	2.1	785.0	0.3
F23	7/14	56-41	171-21	X18200 Y35058	66	3.7	85.6	12.1	17.4	0.8	115.7	0.7
F24	7/15	56-40	171-58	X17967 Y34992	71	4.2	622.9	570.9	2.1	0.0	1195.9	0.0
F25	7/15	56-40	172-31	X17764 Y34907	75	4.0	24.1	12.0	0.7	0.7	37.4	1.8
G01	6/25	57-01	167-42	Y34614 Z49160	44	2.6	15.5	13.5	2.0	0.7	31.7	2.1
G02	6/25	57-00	167-04	Y34487 Z48911	42	2.3	5.6	4.9	0.0	0.0	10.5	0.0
G03	6/22	57-01	166-26	Y34354 Z48651	42	1.6	0.0	0.8	0.0	0.0	0.8	0.0
G04	6/22	57-00	165-51	Y34247 Z48423	41	2.0	0.6	0.0	0.0	0.0	0.6	0.0
G05	6/18	56-59	165-13	Y34131 Z48162	39	1.5	0.7	0.7	0.0	0.0	1.4	0.0
G06	6/18	56-59	164-35	Y34018 Z47910	39	1.8	0.0	0.7	0.0	0.0	0.7	0.0
G07	6/16	57-00	163-58	Y33904 Z47664	38	1.9	0.8	0.8	0.8	0.8	3.2	25.0
G08	6/14	57-00	163-24	Y33810 Z47433	37	2.6	1.9	0.6	1.9	0.0	4.4	0.0
G09	6/13	56-59	162-46	Y33713 Z47179	33	2.8	0.6	0.6	0.0	0.6	1.7	33.2
G10	6/12	56-59	162-11	Y33619 Z46946	35	2.9	3.1	0.6	4.4	0.0	8.2	0.0
G11	6/11	57-00	161-32	Y33516 Z46681	37	3.0	4.1	0.7	4.8	0.7	10.3	6.6
G12	6/10	57-00	160-57	Y33429 Z46448	35	3.2	12.7	0.6	1.9	2.5	17.8	14.3
G13	6/ 8	56-58	160-19	Y33349 Z46194	35	3.4	2.0	0.0	3.3	2.7	8.0	33.3
G14	6/ 8	56-59	159-42	Y33261 Z45945	30	3.8	6.3	7.7	2.1	0.0	16.0	0.0
G15	6/ 8	57-00	159-06	Y33177 Z45705	18	5.6	0.0	0.7	0.0	0.0	0.7	0.0
G18	7/ 6	56-50	168-36	Y34858 Z49523	54	2.5	0.0	2.7	1.3	0.0	4.0	0.0
G18	7/ 6	56-59	168-17	Y34749 Z49399	46	2.6	20.9	5.2	2.0	0.0	28.1	0.0
G19	7/ 6	56-50	169-09	Y34971 Z49732	45	2.8	0.0	0.7	1.5	0.7	3.0	25.0
G19	7/ 6	57-00	168-57	Y34886 Z49664	44	2.5	1.5	1.5	0.0	0.7	3.7	20.0

[illegible] 4.2 TO 4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
G20	7/ 8	56-59	169-34	X18714 Y35027	34	3.5	25.0	17.1	5.3	1.3	48.7	2.7
G20	7/ 8	56-49	169-52	Y35102 Z49985	41	4.2	23.7	7.2	7.2	2.6	40.8	6.5
G21	7/ 8	57-00	170-08	X18689 Z50111	37	4.5	30.8	47.4	44.3	11.1	135.2	8.2
G21	7/ 8	56-49	170-28	X18542 Z50117	56	4.0	36.1	28.0	0.9	0.6	65.7	1.0
G22	7/14	57-00	170-48	X18504 Y35086	53	4.1	140.0	166.9	1.3	0.0	308.3	0.0
G23	7/14	57-01	171-24	X18269 Y34984	60	3.9	1.3	3.2	1.9	0.0	6.5	0.0
G24	7/15	56-59	172-01	X18024 Y34907	66	4.2	167.9	53.1	30.5	4.0	255.4	1.6
G25	7/15	56-59	172-38	X17784 Y34809	68	3.6	74.5	33.9	7.5	0.0	116.0	0.0
G26	7/27	56-59	173-16	X17535 Y34729	81	4.3	24.0	19.4	0.0	0.0	43.4	0.0
H01	6/25	57-19	167-43	Y34508 Z49157	42	2.4	10.0	3.1	4.6	0.0	17.7	0.0
H02	6/25	57-20	167-06	Y34372 Z48911	40	2.0	1.3	0.0	0.0	0.0	1.3	0.0
H07	6/16	57-21	163-59	Y33788 Z47658	34	2.8	1.5	1.5	0.0	0.0	3.1	0.0
H08	6/14	57-20	163-23	Y33692 Z47421	30	3.8	0.0	0.0	0.6	0.6	1.2	50.0
H09	6/13	57-18	162-46	Y33602 Z47171	26	4.5	0.6	0.6	1.8	0.0	3.0	0.0
H10	6/12	57-19	162-09	Y33504 Z46925	28	4.4	0.0	0.6	0.0	0.6	1.3	49.7
H11	6/11	57-20	161-31	Y33398 Z46668	30	4.9	3.4	1.7	6.3	1.7	13.1	13.0
H12	6/10	57-20	160-56	Y33318 Z46436	33	3.9	17.2	0.0	8.0	4.6	29.8	15.6
H13	6/ 9	57-19	160-18	Y33233 Z46180	34	3.6	11.3	5.3	8.3	2.3	27.2	8.3
H14	6/ 8	57-18	159-40	Y33156 Z45929	31	4.2	5.5	21.2	32.2	4.8	63.7	7.5
H15	6/ 8	57-20	159-03	Y33066 Z45677	26	4.6	0.0	0.8	0.0	0.0	0.8	0.0
H18	7/ 5	57-10	168-38	Y34760 Z49532	43	2.8	66.1	56.9	1.3	0.0	124.3	0.0
H18	/	57-21	168-21	Y34631 Z49408			0.0	0.0	0.0	0.0	0.0	0.0
H19	7/ 6	57-10	169-10	Y34877 Z49744	42	2.6	0.0	1.7	0.8	0.0	2.5	0.0
H19	7/ 6	57-20	168-59	0 0	39	3.1	3.6	2.9	0.0	0.0	6.4	0.0
H20	7/ 9	57-19	169-36	Y34911 Z49901	35	2.7	5.3	41.5	17.4	5.3	69.5	7.7
H20	/	57-09	169-51	Y35040 Z50021			0.0	0.0	0.0	0.0	0.0	0.0
H21	7/ 9	57-20	170-14	X18704 Y34996	32	4.7	0.0	4.3	0.7	0.0	5.0	0.0
H21	7/ 8	57-06	170-28	X18652 Y35112	27	5.8	15.2	19.3	7.1	0.0	41.6	0.0
H22	7/14	57-20	170-52	X18507 Y34945	47	4.0	75.0	0.0	0.0	0.0	75.0	0.0
H23	7/14	57-19	171-28	X18285 Y34859	56	3.7	0.0	0.7	3.3	0.0	4.0	0.0
H24	7/15	57-19	172-04	X18051 Y34782	61	3.5	22.6	14.0	23.4	2.7	62.7	4.3
H25	7/15	57-19	172-42	X17807 Y34684	65	3.6	67.8	6.2	6.9	0.0	80.9	0.0
H26	7/27	57-19	173-19	X17571 Y34606	68	4.0	395.7	106.8	2.8	0.7	506.1	0.1
I01	7/ 1	57-39	167-45	Y34363 Z49128	38	1.8	0.0	1.5	0.0	0.0	1.5	0.0
I02	6/25	57-40	167-07	Y34229 Z48879	39	1.5	1.4	0.0	0.0	0.0	1.4	0.0
I05	6/19	57-39	165-14	Y33883 Z48136	34	2.4	0.0	0.7	0.0	0.0	0.7	0.0
I07	6/16	57-40	164-00	Y33663 Z47646	28	3.7	0.0	0.9	0.0	0.0	0.9	0.0
I08	6/14	57-40	163-22	Y33561 Z47398	27	4.5	0.0	1.3	0.6	0.0	1.9	0.0
I09	6/14	57-39	162-44	Y33469 Z47146	24	5.0	0.0	0.6	0.0	0.0	0.6	0.0
I10	6/12	57-39	162-09	Y33380 Z46913	26	3.7	0.7	2.1	2.9	1.4	7.2	20.0
I11	6/11	57-40	161-29	Y33272 Z46645	29	.	2.6	1.9	10.9	2.6	18.0	14.3
I12	6/10	57-40	160-52	Y33188 Z46404	32	3.6	5.8	14.1	42.4	14.8	77.1	19.2
I13	6/ 9	57-40	160-16	Y33109 Z46159	30	3.9	0.8	2.3	2.3	0.8	6.0	12.5
I14	6/ 8	57-39	159-36	Y33029 Z45901	27	4.4	0.0	0.0	1.3	0.6	1.9	33.3
I19	7/ 6	57-29	169-15	Y34748 Z49730	39	3.1	0.0	0.9	0.0	0.0	0.9	0.0

NOTE: PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 6 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
I19	7/ 5	57-40	169-03	Y34606 Z49613	38		0.0	0.7	0.0	0.0	0.7	0.0
I20	7/ 9	57-39	169-40	Y34716 Z49822	40	3.1	0.0	0.0	1.3	0.0	1.3	0.0
I20	7/ 9	57-29	169-59	Y34873 Z49977	38	3.2	0.0	7.0	1.9	0.6	9.6	6.7
I21	/	57-39	170-16	X18620 Y34769			0.0	0.0	0.0	0.0	0.0	0.0
I21	7/ 9	57-29	170-33	X18592 Y34882	42	3.4	3.0	1.8	0.0	0.0	4.8	0.0
I22	7/14	57-40	170-53	X18458 Y34736	48	3.3	0.0	1.3	1.3	0.0	2.7	0.0
I23	7/14	57-40	171-31	X18255 Y34667	55	3.0	0.7	0.0	0.7	0.0	1.4	0.0
I24	7/15	57-39	172-08	X18035 Y34616	61	2.5	13.9	10.8	4.7	0.0	29.4	0.0
I25	7/15	57-38	172-47	X17797 Y34528	67	3.7	40.1	1.4	1.4	0.0	42.8	0.0
I26	7/27	57-41	173-24	X17572 Y34439	82	3.8	174.8	111.7	34.3	2.7	323.5	0.8
J02	6/25	57-59	167-10	Y34078 Z48852	36	1.1	4.0	0.0	0.0	0.0	4.0	0.0
J06	6/19	57-59	164-38	Y33633 Z47878	25	4.8	0.0	0.0	0.7	0.0	0.7	0.0
J07	6/15	57-58	163-59	Y33538 Z47624	25	4.3	0.0	0.7	0.0	0.0	0.7	0.0
J08	6/14	58-00	163-23	Y33420 Z47381	25	4.3	0.0	0.0	0.7	0.0	0.7	0.0
J10	6/13	57-59	162-07	Y33243 Z46890	22	4.8	0.0	1.9	0.6	0.0	2.5	0.0
J11	6/11	58-00	161-28	Y33142 Z46630	30	4.1	2.1	0.0	0.7	0.0	2.8	0.0
J12	6/10	58-00	160-51	Y33059 Z46389	26	3.5	0.0	0.6	0.0	0.0	0.6	0.0
J20	/	57-59	169-40	Y34482 Z49700			0.0	0.0	0.0	0.0	0.0	0.0
J20	7/ 9	57-49	169-59	Y34625 Z49841	41	1.7	0.0	0.0	1.4	0.0	1.4	0.0
J22	7/13	58-00	170-59	X18372 Y34506	49	2.8	0.0	1.3	0.0	0.0	1.3	0.0
J23	7/14	58-01	171-33	X18205 Y34457	55	2.8	0.0	0.8	0.0	0.8	1.5	50.3
J24	7/15	57-59	172-15	X17985 Y34419	59	2.5	0.0	3.3	4.7	0.0	8.0	0.0
J25	7/15	57-58	172-52	X17774 Y34352	60	3.9	23.7	2.6	3.9	0.0	30.3	0.0
J26	7/27	57-59	173-28	X17559 Y34289	66	3.7	278.5	27.2	18.6	0.7	325.0	0.2
K03	6/22	58-20	166-32	Y33772 Z48547	27	2.9	0.0	0.8	0.0	0.0	0.8	0.0
K04	6/21	58-20	165-55	Y33671 Z48322	25	3.7	0.7	0.0	0.0	0.0	0.7	0.0
K10	6/13	58-19	162-05	Y33096 Z46864	27	4.9	0.7	0.7	0.0	0.0	1.4	0.0
K22	7/13	58-20	171-02	X18294 Y34267	47	1.4	0.0	0.0	0.7	0.0	0.7	0.0
K23	7/13	58-21	171-38	X18137 Y34230	53	1.5	0.0	0.0	0.0	0.8	0.8	100.0
K24	7/16	58-19	172-15	X17955 Y34218	58	2.2	0.0	3.9	9.1	0.6	13.6	4.8
K25	7/16	58-19	172-55	X17747 Y34158	61	2.6	12.5	4.9	3.5	0.0	20.9	0.0
K26	7/27	58-19	173-32	X17540 Y34107	65	3.6	182.5	32.1	16.7	2.7	234.0	1.1
K27	7/28	58-19	174-17	X17290 Y34035	86	3.8	0.7	1.5	0.0	0.0	2.2	0.0
L18	7/ 4	58-40	168-30	Y33865 Z49133	30	2.2	0.0	0.7	0.0	0.0	0.7	0.0
L24	7/16	58-39	172-21	X17891 Y34000	57	2.0	0.0	4.0	5.3	0.7	10.0	6.6
L25	7/16	58-39	172-59	X17704 Y34955	63	2.6	0.6	2.5	1.3	0.0	4.4	0.0
L26	7/28	58-39	173-37	X17506 Y33912	71	3.4	53.2	29.8	12.8	1.4	97.1	1.5
L27	7/28	58-39	174-16	X17303 Y33868	87	3.6	134.6	148.5	37.8	5.1	326.0	1.6
L28	7/31	58-44	174-54	X17099 Y33770	85	3.6	174.5	170.0	2.2	0.0	346.6	0.0
L29	7/31	58-41	175-32	X16890 Y33739	75	3.2	178.2	15.2	5.3	0.0	198.7	0.0
L30	7/31	58-40	176-10	X16681 Y33701	78	2.9	205.8	29.9	4.8	0.0	240.5	0.0
L31	7/31	58-40	176-49	X16472 Y33643	74	3.1	97.8	4.7	0.8	0.0	103.2	0.0
M18	7/ 4	59-00	168-30	Y33639 Z49033	26	2.8	0.0	0.6	0.0	0.0	0.6	0.0
M24	7/16	58-59	172-24	X17836 Y33780	55	1.3	1.3	0.7	0.7	0.0	2.7	0.0
M25	7/16	59-00	173-04	X17651 Y33732	60	2.0	0.0	2.5	0.6	0.0	3.1	0.0

NOTE: PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 6 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	PERCENT LEGAL
M26	7/28	58-59	173-42	X17470 Y33716	66	3.1	0.7	2.0	1.3	0.0	4.0	0.0
M27	7/28	58-59	174-21	X17271 Y33673	71	2.8	6.2	7.5	0.0	0.0	13.7	0.0
M28	7/31	58-59	174-58	X17084 Y33628	73	2.8	29.9	25.1	1.4	0.0	56.4	0.0
M29	7/30	59-01	175-44	X16846 Y33562	75	1.9	3.1	2.3	0.0	0.0	5.4	0.0
M30	7/31	58-58	176-19	X16659 Y33538	75	2.4	47.9	29.1	0.0	0.0	77.1	0.0
M31	7/31	58-58	176-57	X16462 Y33495	75	2.6	22.9	2.9	0.0	0.0	25.7	0.0
M32	7/31	59-00	177-33	X16276 Y33442	75	2.9	43.2	19.9	2.7	0.7	66.5	1.0
N18	7/ 3	59-20	168-32	Y33403 Z48937	24	3.7	0.0	1.9	0.0	0.0	1.9	0.0
N25	7/16	59-20	173-08	X17605 Y33519	56	1.5	2.2	0.7	0.0	0.0	3.0	0.0
N26	7/28	59-19	173-46	X17430 Y33507	62	2.6	0.6	1.3	0.0	0.6	2.6	24.9
N27	7/28	59-18	174-27	X17240 Y33482	62	2.3	9.5	9.5	1.6	0.0	20.6	0.0
N28	7/30	59-20	175-06	X17046 Y33427	75	2.4	0.0	0.0	1.4	0.0	1.4	0.0
N29	7/30	59-20	175-45	X16856 Y33393	75	1.7	4.3	7.9	0.0	0.0	12.2	0.0
N30	8/ 1	59-19	176-21	X16672 Y33364	76	2.4	78.8	71.1	1.4	0.0	151.2	0.0
N31	8/ 1	59-21	177-04	X16462 Y33308	83	2.0	26.2	2.8	0.0	0.0	29.1	0.0
O26	7/28	59-38	173-51	X17391 Y33308	59	1.9	0.7	2.1	0.0	0.0	2.8	0.0
O28	7/30	59-40	175-11	X17022 Y33238	70	2.2	0.0	0.7	0.7	0.0	1.5	0.0
O30	8/ 1	59-39	176-33	X16633 Y33188	76	1.8	7.0	5.6	0.0	0.0	12.5	0.0
O31	8/ 1	59-39	177-09	X16464 Y33159	97	2.9	3.4	6.1	0.0	0.7	10.1	6.7
P30	8/ 1	59-59	176-36	X16635 Y33011	79	1.5	1.3	0.0	0.0	0.0	1.3	0.0
Z05	6/17	54-40	165-09	Y34606 Z48029	46	5.3	47.2	49.7	1.3	0.0	98.2	0.0

NOTE: PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 7 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO AND HYBRID TANNER CRAB WERE TAKEN

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
A01	6/26	55-03	167-16	Y34864 Z48795	100	4.1	0.0	0.8	0.8	0.0	1.5	0.0
A02	6/27	55-00	166-55	X18240 Z48677	87	4.2	0.0	3.9	0.6	0.0	4.6	0.0
A03	6/24	54-59	166-20	Y34742 Z48479	81	4.2	0.9	2.7	0.0	0.0	3.7	0.0
A04	6/24	55-00	165-46	0 0	73	4.0	0.0	5.1	0.6	1.3	7.0	18.2
A05	6/17	54-59	165-09	Y34566 Z48054	62	4.4	0.0	11.0	11.0	1.4	23.3	5.9
A06	6/17	55-03	164-30	Y34459 Z47826	34	5.7	0.0	0.7	0.0	0.0	0.7	0.0
B01	6/26	55-20	167-31	Y34877 Z48928	84	4.1	0.0	2.0	0.0	0.0	2.0	0.0
B02	6/27	55-19	166-57	Y34797 Z48735	78	4.2	0.0	0.7	1.3	0.0	2.0	0.0
B03	6/24	55-20	166-19	Y34698 Z48512	75	4.2	0.7	2.9	0.0	0.0	3.7	0.0
B04	6/24	55-21	165-46	Y34612 Z48315	67	4.4	0.0	3.9	0.0	0.0	3.9	0.0
B05	6/17	55-19	165-09	Y34520 Z48086	63	4.5	0.0	7.6	2.1	0.7	10.4	6.7
B06	6/17	55-19	164-34	Y34427 Z47867	57	4.6	0.0	7.7	1.3	0.6	9.6	6.7
B07	6/16	55-19	163-58	Y34333 Z47643	45	4.9	0.0	2.7	0.0	0.0	2.7	0.0
B08	6/16	55-20	163-24	Y34241 Z47425	29	3.7	0.0	18.6	2.7	0.0	21.2	0.0
C01	6/26	55-41	167-33	Y34848 Z48988	77	4.2	0.7	0.7	0.0	0.0	1.4	0.0
C02	6/26	55-40	167-00	Y34760 Z48788	75	4.1	0.0	2.6	0.0	0.0	2.6	0.0
C03	6/23	55-40	166-21	Y34657 Z48558	71	4.1	0.8	1.7	0.0	0.0	2.5	0.0
C04	6/23	55-40	165-47	Y34562 Z48345	66	4.3	0.0	7.5	0.6	1.3	9.3	13.4
C05	6/17	55-39	165-12	Y34468 Z48123	61	4.2	1.6	13.2	0.8	0.0	15.6	0.0
C06	6/17	55-39	164-34	Y34366 Z47884	55	3.5	0.0	3.4	0.0	0.0	3.4	0.0
C07	6/16	55-39	164-00	Y34274 Z47665	54	3.3	0.0	10.0	1.3	3.3	14.7	22.8
C08	6/15	55-39	163-24	Y34177 Z47436	45	3.1	0.0	9.4	0.7	0.7	10.8	6.3
C09	6/12	55-40	162-49	Y34079 Z47105	28	3.5	0.0	5.5	0.6	0.0	6.1	0.0
D01	6/25	56-01	167-34	Y34811 Z49047	76	4.0	1.7	1.7	0.0	0.0	3.4	0.0
D02	6/26	56-00	166-59	Y34714 Z48832	75	4.0	0.0	0.6	0.0	0.0	0.6	0.0
D03	6/23	56-00	166-22	Y34603 Z48595	69	4.0	0.0	3.2	0.6	0.0	3.9	0.0
D04	6/23	56-00	165-47	Y34503 Z48374	59	3.8	0.0	12.6	3.3	2.7	18.6	14.3
D05	6/17	55-59	165-10	Y34398 Z48134	53	2.9	0.0	11.5	0.8	0.0	12.3	0.0
D06	6/17	55-59	164-33	Y34294 Z47895	52	2.8	0.0	21.0	2.5	1.9	25.5	7.5
D07	6/16	56-00	164-00	Y34196 Z47674	50	3.3	0.0	23.9	2.7	0.7	27.2	2.5
D08	6/15	56-00	163-23	Y34094 Z47436	50	3.2	0.0	45.3	4.2	0.0	49.5	0.0
D09	6/13	55-59	162-49	Y34005 Z47207	44	3.2	0.0	20.6	2.2	0.0	22.8	0.0
D10	6/11	55-59	162-15	Y33916 Z46985	38	3.0	0.0	26.3	2.8	0.0	29.0	0.0
D18	7/ 7	56-00	168-12	X18468 Z49269	84	4.1	0.6	2.5	0.0	0.0	3.2	0.0
E01	6/25	56-21	167-38	Y34770 Z49108	72	4.0	11.3	13.3	2.7	0.0	27.2	0.0
E02	6/26	56-20	167-01	Y34657 Z48873	64	3.9	0.0	1.3	0.0	0.0	1.3	0.0
E03	6/23	56-20	166-23	Y34538 Z48626	58	3.5	0.0	9.8	1.2	0.6	11.7	5.3
E04	6/23	56-20	165-46	Y34426 Z48385	51	2.4	0.0	36.3	4.8	0.7	41.8	1.6
E05	6/18	56-19	165-12	Y34327 Z48160	48	1.9	0.7	40.0	2.2	0.7	44.4	1.7
E06	6/18	56-19	164-34	Y34214 Z47906	49	2.4	0.0	106.4	4.6	2.6	113.6	2.3
E07	6/16	56-20	163-59	Y34109 Z47674	47	2.6	0.0	36.2	3.5	0.7	40.4	1.7
E08	6/15	56-20	163-24	Y34010 Z47439	48	3.0	0.0	28.5	1.3	0.6	30.4	2.1
E09	6/13	56-19	162-47	Y33912 Z47193	44	3.0	0.0	16.8	2.3	0.0	19.0	0.0
E10	6/11	56-21	162-13	Y33818 Z46968	47	2.8	0.0	33.4	1.3	1.3	36.1	3.7
E11	6/12	56-20	161-35	Y33721 Z46717	36	3.0	0.0	11.5	3.4	0.7	15.5	4.4

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
E12	6/11	56-20	160-59	Y33633 Z46479	31	3.9	0.0	2.6	0.0	0.0	2.6	0.0
E18	7/ 6	56-20	168-14	0 0	84	4.0	71.1	159.3	33.0	1.9	265.4	0.7
E19	7/ 7	56-20	168-53	Y34990 Z49556	73	3.8	12.3	6.1	2.5	0.0	20.9	0.0
E21	7/ 7	56-19	170-02	Y35124 Z49890	61	3.5	1.4	1.4	0.0	0.0	2.8	0.0
E22	7/14	56-20	170-41	0 0	67	4.0	0.0	2.0	0.6	0.0	2.6	0.0
F01	6/25	56-40	167-38	Y34701 Z49134	58	2.9	33.3	28.4	5.4	0.0	67.1	0.0
F02	6/26	56-41	167-02	Y34579 Z48897	53	2.4	1.3	27.4	3.3	0.0	32.1	0.0
F03	6/23	56-40	166-25	Y34461 Z48650	48	2.2	0.0	20.4	2.8	0.7	23.9	2.9
F04	6/23	56-40	165-49	Y34345 Z48412	44	1.5	0.6	31.9	2.5	0.6	35.7	1.8
F05	6/18	56-39	165-13	Y34238 Z48166	42	.7	0.0	16.2	1.9	0.0	18.1	0.0
F06	6/18	56-39	164-35	Y34124 Z47914	42	1.6	0.0	18.1	2.6	0.0	20.7	0.0
F07	6/16	56-40	164-00	Y34016 Z47677	42	2.0	0.0	14.9	1.3	0.0	16.2	0.0
F08	6/15	56-40	163-23	Y33910 Z47431	42	2.2	0.0	31.1	0.0	0.0	31.1	0.0
F09	6/13	56-39	162-47	Y33817 Z47189	40	2.5	0.0	24.3	2.4	0.0	26.6	0.0
F10	6/12	56-39	162-10	Y33721 Z46946	41	2.6	0.0	50.5	5.8	1.9	58.3	3.3
F11	6/12	56-40	161-35	Y33626 Z46707	50	3.0	0.0	86.0	12.9	3.8	102.8	3.7
F12	6/11	56-40	160-59	Y33538 Z46468	39	3.3	0.0	18.3	2.7	0.0	21.1	0.0
F13	6/ 8	56-39	160-21	Y33448 Z46212	31	3.5	0.0	3.1	0.0	0.0	3.1	0.0
F18	7/ 6	56-40	168-17	0 0	60	3.1	479.1	39.3	9.5	0.0	527.9	0.0
F19	7/ 7	56-39	168-55	Y34955 Z49621	56	2.7	270.2	110.4	14.1	0.0	394.7	0.0
F22	7/14	56-40	170-45	X18398 Y35126	63	3.8	0.0	32.8	9.8	0.0	42.5	0.0
F23	7/14	56-41	171-21	X18200 Y35058	66	3.7	121.7	34.7	6.0	0.0	162.4	0.0
F25	7/15	56-40	172-31	X17764 Y34907	75	4.0	6.0	3.3	0.7	0.0	10.0	0.0
G01	6/25	57-01	167-42	Y34614 Z49160	44	2.6	4.0	130.8	8.8	0.7	144.3	0.5
G02	6/25	57-00	167-04	Y34487 Z48911	42	2.3	0.7	116.0	2.8	0.0	119.5	0.0
G03	6/22	57-01	166-26	Y34354 Z48651	42	1.6	0.0	128.4	34.5	6.3	169.2	3.7
G04	6/22	57-00	165-51	Y34247 Z48423	41	2.0	1.3	35.2	3.3	1.3	41.1	3.2
G05	6/18	56-59	165-13	Y34131 Z48162	39	1.5	1.4	18.7	0.7	0.0	20.7	0.0
G06	6/18	56-59	164-35	Y34018 Z47910	39	1.8	0.0	9.7	4.1	1.4	15.2	9.1
G07	6/16	57-00	163-58	Y33904 Z47664	38	1.9	0.0	15.0	6.3	3.2	24.5	12.9
G08	6/14	57-00	163-24	Y33810 Z47433	37	2.6	0.0	19.6	1.3	3.8	24.7	15.4
G09	6/13	56-59	162-46	Y33713 Z47179	33	2.8	0.6	5.2	1.7	1.2	8.7	13.4
G10	6/12	56-59	162-11	Y33619 Z46946	35	2.9	0.0	22.0	1.9	0.0	23.9	0.0
G11	6/11	57-00	161-32	Y33516 Z46681	37	3.0	0.0	28.8	1.4	0.0	30.2	0.0
G12	6/10	57-00	160-57	Y33429 Z46448	35	3.2	0.0	17.2	3.2	0.0	20.4	0.0
G13	6/ 8	56-58	160-19	Y33349 Z46194	35	3.4	0.0	2.7	0.7	0.0	3.3	0.0
G14	6/ 8	56-59	159-42	Y33261 Z45945	30	3.8	0.0	7.7	0.0	0.0	7.7	0.0
G18	7/ 6	56-50	168-36	Y34858 Z49523	54	2.5	999.1	211.3	17.4	0.0	1227.8	0.0
G18	7/ 6	56-59	168-17	Y34749 Z49399	46	2.6	96.6	199.7	29.4	2.0	327.6	0.6
G19	7/ 6	56-50	169-09	Y34971 Z49732	45	2.8	82.2	323.0	24.7	0.0	429.9	0.0
G19	7/ 6	57-00	168-57	Y34886 Z49664	44	2.5	3.7	270.4	88.9	0.0	363.0	0.0
G20	7/ 8	56-49	169-52	Y35102 Z49985	41	4.2	0.0	165.8	55.3	0.0	221.1	0.0
G20	7/ 8	56-59	169-34	X18714 Y35027	34	3.5	0.0	7.2	0.0	0.0	7.2	0.0
G21	7/ 8	56-49	170-28	X18542 Z50117	56	4.0	1.3	9.7	5.6	0.6	17.1	3.6
G21	7/ 8	57-00	170-08	X18689 Z50111	37	4.5	0.0	16.6	11.1	0.8	28.5	2.8

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
G22	7/14	57-00	170-48	X18504 Y35086	53	4.1	0.0	139.1	28.1	0.0	167.1	0.0
G23	7/14	57-01	171-24	X18269 Y34984	60	3.9	629.4	53.7	8.4	0.6	692.2	0.1
G24	7/15	56-59	172-01	X18024 Y34907	66	4.2	980.9	78.1	9.4	1.3	1069.8	0.1
G25	7/15	56-59	172-38	X17784 Y34809	68	3.6	1.3	1.9	0.0	0.0	3.1	0.0
H01	6/25	57-19	167-43	Y34508 Z49157	42	2.4	2.3	332.0	16.9	0.0	351.2	0.0
H02	6/25	57-20	167-06	Y34372 Z48911	40	2.0	0.0	40.8	4.5	0.0	45.3	0.0
H03	6/22	57-20	166-28	Y34247 Z48655	39	1.7	0.0	122.7	78.1	15.3	216.0	7.1
H04	6/22	57-20	165-53	Y34131 Z48418	38	2.4	1.4	26.5	32.1	7.0	66.9	10.4
H05	6/18	57-19	165-14	Y34016 Z48157	37	2.4	0.0	5.3	1.5	0.8	7.5	10.0
H06	6/18	57-19	164-35	Y33901 Z47903	37	2.6	0.0	34.2	49.3	23.4	106.9	21.9
H07	6/16	57-21	163-59	Y33788 Z47658	34	2.8	0.0	12.3	6.9	7.7	26.9	28.6
H08	6/14	57-20	163-23	Y33692 Z47421	30	3.8	0.0	4.3	0.0	0.6	5.0	12.5
H09	6/13	57-18	162-46	Y33602 Z47171	26	4.5	0.0	3.6	2.4	1.2	7.2	16.7
H10	6/12	57-19	162-09	Y33504 Z46925	28	4.4	0.0	3.9	0.0	0.0	3.9	0.0
H11	6/11	57-20	161-31	Y33398 Z46668	30	4.9	0.0	7.4	1.7	0.0	9.1	0.0
H12	6/10	57-20	160-56	Y33318 Z46436	33	3.9	0.0	42.4	2.0	0.0	44.4	0.0
H13	6/ 9	57-19	160-18	Y33233 Z46180	34	3.6	0.0	10.6	0.8	0.0	11.3	0.0
H14	6/ 8	57-18	159-40	Y33156 Z45929	31	4.2	0.0	15.1	0.0	0.0	15.1	0.0
H18	7/ 5	57-10	168-38	Y34760 Z49532	43	2.8	10.9	194.7	30.8	1.9	238.4	0.8
H18	7/ 5	57-21	168-21	Y34631 Z49408	42	3.1	0.0	171.2	21.4	0.0	192.6	0.0
H19	7/ 6	57-10	169-10	Y34877 Z49744	42	2.6	7.5	50.3	5.0	0.0	62.9	0.0
H19	7/ 6	57-20	168-59	0 0	39	3.1	0.0	17.2	7.9	1.4	26.5	5.4
H20	/	57-09	169-51	Y35040 Z50021			0.0	0.0	0.0	0.0	0.0	0.0
H20	7/ 9	57-19	169-36	Y34911 Z49901	35	2.7	53.0	242.7	32.1	2.0	329.8	0.6
H21	7/ 8	57-06	170-28	X18652 Y35112	27	5.8	0.0	0.0	1.0	0.0	1.0	0.0
H21	/	57-20	170-14	X18704 Y34996			0.0	0.0	0.0	0.0	0.0	0.0
H22	7/14	57-20	170-52	X18507 Y34945	47	4.0	4426.9	471.3	41.1	0.0	4939.3	0.0
H23	7/14	57-19	171-28	X18285 Y34859	56	3.7	720.8	107.0	13.4	0.0	841.1	0.0
H24	7/15	57-19	172-04	X18051 Y34782	61	3.5	1991.6	93.6	18.7	6.7	2110.6	0.3
H25	7/15	57-19	172-42	X17807 Y34684	65	3.6	0.7	0.0	0.0	0.0	0.7	0.0
H25	/	57-19	172-42	X17807 Y34684			0.0	0.0	0.0	0.0	0.0	0.0
I01	7/ 1	57-39	167-45	Y34363 Z49128	38	1.8	0.0	190.9	37.0	4.5	232.4	1.9
I02	6/25	57-40	167-07	Y34229 Z48879	39	1.5	0.0	281.4	27.2	2.7	311.3	0.9
I03	6/22	57-40	166-30	Y34107 Z48635	37	1.5	0.0	102.3	30.8	2.0	135.1	1.5
I04	6/22	57-40	165-53	Y33995 Z48395	36	2.3	0.0	44.9	20.7	6.9	72.6	9.5
I05	6/19	57-39	165-14	Y33883 Z48136	34	2.4	0.7	58.6	40.8	18.6	118.7	15.7
I06	6/19	57-39	164-36	Y33773 Z47887	30	3.2	0.0	12.2	9.0	3.9	25.1	15.4
I07	6/16	57-40	164-00	Y33663 Z47646	28	3.7	0.9	3.5	2.6	1.7	8.7	20.1
I08	6/14	57-40	163-22	Y33561 Z47398	27	4.5	0.0	0.0	1.3	0.0	1.3	0.0
I09	6/14	57-39	162-44	Y33469 Z47146	24	5.0	0.0	0.6	0.0	0.6	1.2	50.0
I10	6/12	57-39	162-09	Y33380 Z46913	26	3.7	0.0	1.4	0.7	0.0	2.1	0.0
I11	6/11	57-40	161-29	Y33272 Z46645	29	.	0.0	52.0	5.8	0.0	57.8	0.0
I12	6/10	57-40	160-52	Y33188 Z46404	32	3.6	0.0	14.8	0.6	0.6	16.1	4.0
I13	6/ 9	57-40	160-16	Y33109 Z46159	30	3.9	0.0	3.0	0.8	0.0	3.8	0.0
I14	6/ 8	57-39	159-36	Y33029 Z45901	27	4.4	0.0	0.6	0.0	0.0	0.6	0.0

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

[illegible] THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
I18	7/ 5	57-30	168-39	Y34615 Z49498	40	3.2	1.3	195.2	14.0	0.0	210.6	0.0
I18	7/ 5	57-40	168-25	Y34484 Z49376	40	3.0	0.0	258.8	25.5	0.0	284.3	0.0
I19	7/ 6	57-29	169-15	Y34748 Z49730	39	3.1	6.0	142.2	54.8	3.4	206.4	1.7
I19	7/ 5	57-40	169-03	Y34606 Z49613	38		1.4	240.4	58.5	2.1	302.5	0.7
I20	7/ 9	57-29	169-59	Y34873 Z49977	38	3.2	750.6	179.8	10.2	0.0	940.6	0.0
I20	7/ 9	57-39	169-40	Y34716 Z49822	40	3.1	2.0	60.7	35.9	5.2	103.8	5.0
I21	7/ 9	57-29	170-33	X18592 Y34882	42	3.4	699.3	276.1	7.2	2.4	987.4	0.2
I21	7/ 9	57-39	170-16	X18620 Y34769	41	2.7	10.5	64.5	13.7	1.6	90.3	1.8
I22	7/14	57-40	170-53	X18458 Y34736	48	3.3	1079.4	167.1	17.2	2.0	1265.7	0.2
I23	7/14	57-40	171-31	X18255 Y34667	55	3.0	882.7	128.1	23.3	0.0	1034.1	0.0
I24	7/15	57-39	172-08	X18035 Y34616	61	2.5	1157.6	103.8	24.9	1.3	1287.7	0.1
I25	7/15	57-38	172-47	X17797 Y34528	67	3.7	0.0	30.6	11.6	2.0	44.2	4.6
J01	7/ 1	57-59	167-47	Y34194 Z49081	37	1.6	0.0	270.2	27.4	2.6	300.2	0.9
J02	6/25	57-59	167-10	Y34078 Z48852	36	1.1	0.0	740.8	254.1	26.7	1021.6	2.6
J03	6/22	58-00	166-31	Y33949 Z48597	34	1.4	0.0	72.6	14.1	1.3	88.7	1.4
J04	6/22	58-00	165-53	Y33837 Z48357	32	2.7	0.0	4.7	0.0	0.0	4.7	0.0
J05	6/19	57-59	165-15	Y33739 Z48113	27	3.1	0.7	9.1	3.5	4.9	18.1	26.9
J06	6/19	57-59	164-38	Y33633 Z47878	25	4.8	0.0	24.1	11.4	3.3	38.8	8.6
J07	6/15	57-58	163-59	Y33538 Z47624	25	4.3	0.0	2.0	1.4	0.0	3.4	0.0
J08	6/14	58-00	163-23	Y33420 Z47381	25	4.3	0.0	0.7	0.0	0.0	0.7	0.0
J11	6/11	58-00	161-28	Y33142 Z46630	30	4.1	0.0	0.7	0.0	0.0	0.7	0.0
J12	6/10	58-00	160-51	Y33059 Z46389	26	3.5	0.0	2.6	0.0	0.0	2.6	0.0
J13	6/ 9	57-59	160-13	Y32985 Z46139	27	3.6	0.0	1.7	0.0	0.0	1.7	0.0
J18	7/ 4	57-50	168-38	Y34427 Z49417	40	2.5	25.7	196.6	21.8	2.6	246.7	1.0
J18	7/ 4	58-00	168-24	Y34288 Z49293	39	1.7	0.0	86.7	19.9	3.2	109.9	2.9
J19	7/ 4	57-50	169-13	Y34524 Z49619	35	2.7	0.0	273.2	108.7	11.2	393.1	2.8
J19	7/ 4	58-01	169-03	Y34386 Z49511	39	1.9	1.5	91.7	5.1	0.0	98.2	0.0
J20	7/ 9	57-49	169-59	Y34625 Z49841	41	1.7	11.9	181.2	51.6	0.0	244.6	0.0
J20	7/10	57-59	169-40	Y34482 Z49700	40	2.4	0.0	222.8	31.8	1.3	256.0	0.5
J21	7/ 9	57-49	170-34	X18515 Y34646	43	2.3	1.3	22.1	3.3	0.0	26.7	0.0
J21	7/10	58-00	170-19	X18527 Y34515	42	1.7	27.7	209.6	99.0	5.8	342.0	1.7
J22	7/13	58-00	170-59	X18372 Y34506	49	2.8	1905.4	330.7	18.3	1.3	2255.8	0.1
J23	7/14	58-01	171-33	X18205 Y34457	55	2.8	3166.4	280.7	33.9	0.0	3481.0	0.0
J24	7/15	57-59	172-15	X17985 Y34419	59	2.5	308.9	38.1	8.7	1.3	357.0	0.4
J25	7/15	57-58	172-52	X17774 Y34352	60	3.9	0.7	37.5	21.1	3.9	63.2	6.3
J26	7/27	57-59	173-28	X17559 Y34289	66	3.7	0.0	2.7	0.7	0.0	3.3	0.0
K01	7/ 1	58-18	167-49	Y34005 Z49017	33	1.3	0.0	49.9	6.5	0.0	58.9	0.0
K02	7/ 2	58-19	167-10	Y33898 Z48788	30	4.2	0.0	7.0	0.0	0.0	7.0	0.0
K03	6/22	58-20	166-32	Y33772 Z48547	27	2.9	0.0	7.0	0.0	0.0	7.0	0.0
K04	6/21	58-20	165-55	Y33671 Z48322	25	3.7	0.0	0.7	0.0	0.0	0.7	0.0
K05	6/19	58-18	165-19	Y33595 Z48101	25	3.2	0.7	0.7	1.3	2.0	4.7	42.9
K06	6/19	58-20	164-39	Y33473 Z47848	25	4.5	0.0	0.0	0.6	0.0	0.6	0.0
K18	7/ 4	58-20	168-26	Y34083 Z49216	37	1.4	0.0	10.4	0.6	0.0	11.1	0.0
K19	7/ 4	58-21	169-06	Y34162 Z49414	37	1.6	0.8	43.8	3.1	0.8	48.4	1.6
K20	7/10	58-19	169-42	Y34244 Z49585	39	1.3	12.0	258.1	16.0	2.7	288.8	0.9

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
K21	7/10	58-19	170-22	X18443 Y34281	42	.4	10.0	215.2	86.1	18.4	329.7	5.6
K22	7/13	58-20	171-02	X18294 Y34267	47	1.4	0.7	119.7	31.4	3.3	155.1	2.2
K23	7/13	58-21	171-38	X18137 Y34230	53	1.5	41.1	52.4	13.7	0.0	107.2	0.0
K24	7/16	58-19	172-15	X17955 Y34218	58	2.2	68.5	30.4	7.8	0.0	106.7	0.0
K25	7/16	58-19	172-55	X17747 Y34158	61	2.6	35.5	11.9	8.4	0.0	55.8	0.0
K26	7/27	58-19	173-32	X17540 Y34107	65	3.6	0.0	9.4	6.0	2.7	18.1	14.8
L01	7/ 1	58-39	167-51	Y33797 Z48940	26	3.0	0.0	0.7	0.0	0.0	0.7	0.0
L03	6/21	58-40	166-32	Y33587 Z48488	23	4.4	0.0	0.8	0.0	0.0	0.8	0.0
L05	6/19	58-39	165-17	Y33409 Z48046	22	4.1	0.0	0.0	0.7	0.0	0.7	0.0
L18	7/ 4	58-40	168-30	Y33865 Z49133	30	2.2	0.0	3.4	0.0	0.0	3.4	0.0
L19	7/ 4	58-40	169-08	Y33933 Z49311	35	1.3	0.0	75.3	4.2	0.0	79.4	0.0
L20	7/10	58-39	169-46	Y34004 Z49474	38	1.1	0.7	73.7	59.2	13.2	146.7	9.0
L21	7/10	58-39	170-26	X18360 Y34041	41	.3	1.4	236.6	115.4	26.0	379.4	6.8
L22	7/13	58-40	171-05	Y34030 Z49718	47	.6	4.7	406.0	30.3	0.0	441.0	0.0
L23	7/13	58-41	171-42	X18067 Y34000	52	1.0	2.2	82.2	14.4	0.7	99.5	0.7
L24	7/16	58-39	172-21	X17891 Y34000	57	2.0	18.7	38.1	8.0	2.0	66.9	3.0
L25	7/16	58-39	172-59	X17704 Y34955	63	2.6	150.8	66.7	12.5	1.9	231.8	0.8
L26	7/28	58-39	173-37	X17506 Y33912	71	3.4	403.7	36.2	9.9	2.8	452.7	0.6
L27	7/28	58-39	174-16	X17303 Y33868	87	3.6	0.0	0.0	0.0	0.7	0.7	100.0
L29	7/31	58-41	175-32	X16890 Y33739	75	3.2	109.6	3.8	3.0	0.8	117.3	0.7
L30	7/31	58-40	176-10	X16681 Y33701	78	2.9	17.7	2.7	3.4	0.0	23.8	0.0
L31	7/31	58-40	176-49	X16472 Y33643	74	3.1	42.7	1.6	0.8	0.8	45.8	1.7
M01	/	58-59	167-53	Y33579 Z48856			0.0	0.0	0.0	0.0	0.0	0.0
M01	7/ 1	58-59	167-53	Y33579 Z48856	22	4.4	0.0	1.4	0.0	0.0	1.4	0.0
M18	7/ 4	59-00	168-30	Y33639 Z49033	26	2.8	0.0	1.2	0.0	0.0	1.2	0.0
M19	7/ 4	59-00	169-09	Y33700 Z49204	28	1.6	0.7	4.0	0.0	0.0	4.6	0.0
M20	7/10	58-59	169-49	Y33764 Z49367	36	1.0	1.3	133.1	0.7	0.7	135.7	0.5
M21	7/10	58-59	170-29	X18283 Y33795	40	.7	18.8	413.1	224.1	26.4	682.4	3.9
M22	7/13	59-00	171-08	X18144 Z49606	44	.0	39.4	374.4	23.5	2.0	439.3	0.4
M23	7/13	59-00	171-47	X17995 Y33773	46	.5	2.7	95.6	6.7	0.7	105.6	0.6
M24	7/16	58-59	172-24	X17836 Y33780	55	1.3	7.4	85.6	44.8	6.7	144.4	4.6
M25	7/16	59-00	173-04	X17651 Y33732	60	2.0	173.2	47.7	5.0	1.9	227.8	0.8
M26	7/28	58-59	173-42	X17470 Y33716	66	3.1	3.4	13.5	16.2	1.3	34.4	3.9
M27	7/28	58-59	174-21	X17271 Y33673	71	2.8	0.0	1.4	7.5	6.2	15.1	40.9
M28	7/31	58-59	174-58	X17084 Y33628	73	2.8	11.6	6.8	3.4	2.0	23.8	8.6
M29	7/30	59-01	175-44	X16846 Y33562	75	1.9	0.8	0.0	0.0	0.0	0.8	0.0
M30	7/31	58-58	176-19	X16659 Y33538	75	2.4	0.0	0.0	1.3	1.3	2.6	49.8
M31	7/31	58-58	176-57	X16462 Y33495	75	2.6	17.2	1.4	0.7	0.0	19.3	0.0
M32	7/31	59-00	177-33	X16276 Y33442	75	2.9	145.3	11.0	7.5	2.1	165.8	1.2
N01	7/ 2	59-19	167-55	Y33357 Z48776	21	4.4	0.0	0.8	0.0	0.0	0.8	0.0
N01	/	59-19	167-55	Y33357 Z48776			0.0	0.0	0.0	0.0	0.0	0.0
N02	7/16	59-29	172-48	X17675 Y33435	52	1.2	85.0	1.9	1.3	1.3	89.5	1.4
N18	7/ 3	59-20	168-32	Y33403 Z48937	24	3.7	0.0	5.1	0.0	0.0	5.7	0.0
N19	7/ 3	59-21	169-10	Y33453 Z49095	27	2.1	0.7	5.5	0.0	0.0	6.2	0.0
N20	7/11	59-19	169-51	Y33521 Z49256	34	1.5	0.0	4.6	0.6	0.6	5.9	11.1

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
N21	7/10	59-18	170-31	X18209 Y33556	38	.0	114.5	760.1	6.2	6.2	887.1	0.7
N22	7/13	59-20	171-11	X18074 Y33550	43	-.2	55.3	872.0	65.9	10.1	1003.3	1.0
N23	7/13	59-20	171-48	X17940 Y33545	45	.3	22.8	190.4	10.7	0.0	223.9	0.0
N24	7/16	59-19	172-30	X17771 Y33554	50	.6	9.4	8.7	14.7	8.7	41.4	21.0
N25	7/16	59-20	173-08	X17605 Y33519	56	1.5	21.0	71.1	6.0	0.0	98.0	0.0
N26	7/28	59-19	173-46	X17430 Y33507	62	2.6	4185.7	258.5	14.4	0.0	4458.5	0.0
N27	7/28	59-18	174-27	X17240 Y33482	62	2.3	0.0	15.8	14.2	3.2	33.2	9.5
N28	7/30	59-20	175-06	X17046 Y33427	75	2.4	278.0	31.9	15.0	3.4	328.3	1.0
N29	7/30	59-20	175-45	X16856 Y33393	75	1.7	60.1	2.1	0.7	0.7	63.6	1.1
N31	8/ 1	59-21	177-04	X16462 Y33308	83	2.0	33.3	2.8	1.4	0.7	38.3	1.8
O18	7/ 3	59-40	168-36	Y33167 Z48853	22	3.7	0.0	1.3	0.0	0.0	1.3	0.0
O19	7/ 3	59-40	169-15	Y33222 Z49006	26	2.0	0.0	17.4	0.0	0.0	17.4	0.0
O21	7/11	59-39	170-35	X18136 Y33313	37	.0	74.2	270.4	2.8	2.8	350.2	0.8
O22	7/12	59-40	171-13	0 0	41	-.6	457.5	867.3	0.0	0.0	1324.7	0.0
O23	7/13	59-37	171-53	X17879 Y33347	44	.0	10.1	80.8	0.0	0.0	90.9	0.0
O24	7/17	59-39	172-34	X17716 Y33332	48	.7	2.0	42.1	9.5	2.0	55.7	3.7
O25	7/17	59-44	173-14	X17542 Y33250	51	1.3	0.0	14.6	2.9	0.7	18.2	4.0
O25	7/16	59-30	173-24	X17519 Y33395	56	1.5	7.3	277.5	6.6	0.0	291.5	0.0
O26	7/28	59-38	173-51	X17391 Y33308	59	1.9	9.8	40.8	5.6	1.4	57.6	2.4
O27	7/29	59-40	174-26	X17232 Y33272	64	1.7	14.6	217.4	9.8	1.4	243.2	0.6
O28	7/30	59-40	175-11	X17022 Y33238	70	2.2	1779.7	146.9	19.1	2.9	1948.5	0.2
O29	7/30	59-41	175-51	X 0 Y 0	76	1.8	1906.5	45.8	10.0	1.4	1963.7	0.1
O30	8/ 1	59-39	176-33	X16633 Y33188	76	1.8	2.8	0.7	3.5	0.0	7.0	0.0
O31	8/ 1	59-39	177-09	X16464 Y33159	97	2.9	1.3	1.3	0.0	0.0	2.7	0.0
P18	7/ 3	60-00	168-38	Y32930 Z48764	22	3.0	0.0	1.3	0.0	0.0	1.3	0.0
P19	7/ 3	60-01	169-18	Y32976 Z48913	25	1.7	0.0	0.7	0.0	0.0	0.7	0.0
P20	7/11	59-59	169-57	Y33039 Z49056	31	1.0	8.9	216.3	0.0	0.0	225.2	0.0
P21	7/11	59-59	170-37	X18068 Y33071	37	.0	11.3	273.9	2.3	0.0	287.5	0.0
P22	7/12	60-00	171-16	X17944 Y33075	39	-.4	2469.3	1795.9	0.0	0.0	4265.2	0.0
P23	7/12	59-50	172-09	X17789 Y33200	42	-.5	591.6	1584.4	0.0	0.0	2176.0	0.0
P23	7/12	60-01	171-59	X17799 Y33084	36	-.5	0.8	54.6	1.6	0.0	56.9	0.0
P24	7/17	59-58	172-42	X17647 Y33119	37	.0	5272.6	6714.4	0.0	0.7	11987.8	0.0
P24	7/17	59-50	172-51	X17626 Y33200	45	1.0	0.0	8.8	2.0	0.0	10.9	0.0
P25	7/17	59-59	173-20	X17497 Y33088	41	.0	46.6	71.2	0.0	1.3	119.1	1.1
P25	7/17	59-50	173-33	X17454 Y33186	53	.7	0.7	2.8	2.1	0.0	5.6	0.0
P26	7/28	59-49	174-13	X17283 Y33185	60	1.8	19.5	40.4	10.5	1.4	71.8	1.9
P26	7/29	59-59	173-55	X17349 Y33087	55	1.4	117.7	1289.7	6.4	6.4	1420.1	0.4
P27	7/29	59-59	174-35	X17180 Y33078	60	1.4	27.2	109.4	3.5	0.0	140.1	0.0
P28	7/30	60-00	175-16	X17000 Y33043	66	1.8	361.7	157.7	13.6	1.4	534.3	0.3
P29	7/30	60-01	175-56	X16819 Y32017	72	1.7	1124.3	43.0	11.5	1.5	1180.4	0.1
P30	8/ 1	59-59	176-36	X16635 Y33011	79	1.5	0.6	1.9	9.6	0.6	13.5	4.8
P31	8/ 1	59-59	177-12	X16473 Y32985	76	1.6	0.0	0.6	1.3	0.6	2.6	25.1
Q20	7/11	60-19	169-59	Y32797 Z48958	29	.3	76.0	1360.9	0.0	0.0	1436.8	0.0
Q21	7/11	60-19	170-39	X18006 Y32831	35	-.5	5.7	285.3	0.0	0.0	291.1	0.0
Q22	7/12	60-20	171-20	X17878 Y32838	38	-.6	310.2	2290.8	0.0	0.0	2601.0	0.0

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

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TABLE 7 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
Q23	7/12	60-09	172-16	X17722 Y32987	32	2.8	0.0	0.9	0.0	0.0	0.9	0.0
Q23	7/12	60-21	172-03	X17740 Y32850	34	-1.0	0.7	7.7	0.0	0.7	9.1	7.7
Q24	7/17	60-10	172-59	X17558 Y32978	34	.7	21.6	31.7	0.0	0.0	53.4	0.0
Q25	7/17	60-20	173-22	X 0 Y 0	33	1.4	4.0	13.0	1.0	0.0	18.1	0.0
Q25	7/17	60-10	173-37	X17410 Y32967	42	.0	48.3	77.7	0.6	0.0	126.6	0.0
Q26	7/29	60-09	174-19	X17239 Y32976	56	1.6	2.1	81.5	1.4	0.0	85.0	0.0
Q26	7/29	60-19	174-04	X17290 Y32878	51	1.3	0.0	1.3	0.0	0.0	1.3	0.0
Q27	7/29	60-19	174-42	X17136 Y32874	56	1.2	4.2	27.9	1.4	0.0	33.4	0.0
Q28	7/30	60-20	175-23	X16966 Y32847	63	1.3	42.5	97.6	26.5	4.2	170.7	2.4
Q29	7/30	60-21	176-02	X16800 Y32829	68	1.3	1852.8	63.4	1.6	0.0	1917.8	0.0
Q30	8/ 1	60-19	176-42	X16622 Y32831	77	1.4	100.3	17.4	17.4	1.9	137.1	1.4
Q31	8/ 1	60-19	177-22	X16451 Y32810	82	1.8	0.0	0.0	0.0	0.7	0.7	100.0
R22	7/12	60-40	171-23	0 0	36	-.7	177.9	377.5	0.0	0.0	555.4	0.0
R23	7/12	60-40	172-07	X17685 Y32622	35	-1.0	5.6	35.8	0.0	0.0	41.5	0.0
R24	7/18	60-40	172-42	X17567 Y32637	25	4.0	1.3	2.0	0.0	0.0	3.3	0.0
R26	7/29	60-39	174-07	X17259 Y32668	49	1.1	801.6	829.1	3.1	0.0	1633.9	0.0
R27	7/29	60-39	174-45	X17112 Y32672	54	.9	2.2	26.9	0.7	0.0	29.8	0.0
R28	7/30	60-40	175-25	X16952 Y32655	61	1.2	7.5	104.2	48.7	9.6	170.6	5.6
R29	7/30	60-39	176-11	X16764 Y32655	66	1.3	187.9	43.0	4.5	1.5	236.9	0.6
R30	8/ 1	60-39	176-47	X16614 Y32651	73	1.4	0.7	141.9	29.2	5.3	177.1	3.0
R31	8/ 1	60-38	177-28	X16443 Y32644	82	1.2	0.0	2.8	12.5	9.8	25.1	38.9
S22	7/12	61-00	171-23	Y32371 Z48988	34	-1.0	1357.0	871.5	0.0	0.0	2228.5	0.0
S23	7/12	60-59	172-08	X17641 Y32409	36	.0	6.4	81.5	0.0	0.0	88.0	0.0
S24	7/18	60-58	172-48	X17513 Y32435	37	.0	38.1	152.4	0.0	0.0	190.6	0.0
S25	7/17	60-58	173-29	X17374 Y32446	41	.0	312.3	686.4	0.0	0.0	998.8	0.0
S26	7/29	60-59	174-11	X17224 Y32462	47	.5	145.0	846.1	6.9	0.0	998.0	0.0
Z05	6/17	54-40	165-09	Y34606 Z48029	46	5.3	0.0	76.5	37.0	11.5	125.0	9.2

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	NUMBER PER MILE TOWED: FEMALES	MALES (SEE NOTE): SMALL	MALES (SEE NOTE): PRERECRUIT	MALES (SEE NOTE): LARGE	TOTAL	PERCENT LARGE
A01	6/26	55-03	167-16	Y34864 Z48795	100	4.1	0.0	0.0	0.8	1.5	2.3	66.8
A06	6/17	55-03	164-30	Y34459 Z47826	34	5.7	0.0	0.0	0.7	1.4	2.1	66.7
C08	6/15	55-39	163-24	Y34177 Z47436	45	3.1	0.7	0.0	2.0	0.0	2.7	0.0
C09	6/12	55-40	162-49	Y34079 Z47105	28	3.5	0.0	0.6	0.0	0.0	0.6	0.0
D09	6/13	55-59	162-49	Y34005 Z47207	44	3.2	0.0	0.0	0.0	0.7	0.7	100.0
D10	6/11	55-59	162-15	Y33916 Z46985	38	3.0	0.7	0.0	0.0	0.7	1.4	50.0
D18	7/ 7	56-00	168-12	X18468 Z49269	84	4.1	0.6	0.0	0.0	2.5	3.2	80.0
E09	6/13	56-19	162-47	Y33912 Z47193	44	3.0	0.8	0.0	0.0	0.8	1.5	50.0
E11	6/12	56-20	161-35	Y33721 Z46717	36	3.0	0.7	0.0	0.0	0.7	1.3	50.0
E22	7/14	56-20	170-41	0 0	67	4.0	0.0	0.0	0.6	0.0	0.6	0.0
F01	6/25	56-40	167-38	Y34701 Z49134	58	2.9	0.0	0.0	0.0	1.2	1.2	100.0
F06	6/18	56-39	164-35	Y34124 Z47914	42	1.6	0.0	0.0	0.0	0.6	0.6	100.0
F10	6/12	56-39	162-10	Y33721 Z46946	41	2.6	0.6	0.0	0.0	0.6	1.3	50.0
F11	6/12	56-40	161-35	Y33626 Z46707	50	3.0	3.0	0.0	0.0	3.8	6.9	55.6
F12	6/11	56-40	160-59	Y33538 Z46468	39	3.3	0.0	0.0	0.7	1.4	2.0	66.5
F13	6/ 8	56-39	160-21	Y33448 Z46212	31	3.5	0.6	0.0	0.0	0.6	1.2	50.0
G02	6/25	57-00	167-04	Y34487 Z48911	42	2.3	0.7	0.0	0.0	0.7	1.4	50.0
G10	6/12	56-59	162-11	Y33619 Z46946	35	2.9	0.0	0.0	0.0	1.9	1.9	100.0
G11	6/11	57-00	161-32	Y33516 Z46681	37	3.0	0.7	0.0	0.0	1.4	2.1	66.8
G19	7/ 6	56-50	169-09	Y34971 Z49732	45	2.8	0.0	0.0	0.0	0.7	0.7	100.0
G19	7/ 6	57-00	168-57	Y34886 Z49664	44	2.5	0.0	0.0	0.0	3.7	3.7	100.0
G20	7/ 8	56-59	169-34	X18714 Y35027	34	3.5	1.3	0.0	0.7	5.3	7.2	72.7
G20	7/ 8	56-49	169-52	Y35102 Z49985	41	4.2	0.0	0.0	0.7	7.2	7.9	91.7
G21	/	56-49	170-28	X18542 Z50117			0.0	0.0	0.0	0.0	0.0	0.0
G21	7/ 8	57-00	170-08	X18689 Z50111	37	4.5	1.6	0.0	0.0	5.5	7.1	77.8
H01	6/25	57-19	167-43	Y34508 Z49157	42	2.4	0.0	0.0	0.8	4.6	5.4	85.8
H02	6/25	57-20	167-06	Y34372 Z48911	40	2.0	0.0	0.0	0.0	0.6	0.6	100.0
H04	6/22	57-20	165-53	Y34131 Z48418	38	2.4	0.0	0.0	0.0	1.4	1.4	100.0
H10	6/12	57-19	162-09	Y33504 Z46925	28	4.4	0.0	0.0	0.0	0.6	0.6	100.0
H11	6/11	57-20	161-31	Y33398 Z46668	30	4.9	0.6	0.0	0.0	0.0	0.6	0.0
H12	6/10	57-20	160-56	Y33318 Z46436	33	3.9	0.0	0.0	0.0	0.7	0.7	100.0
H18	7/ 5	57-21	168-21	Y34631 Z49408	42	3.1	0.0	0.0	0.0	0.7	0.7	100.0
H18	7/ 5	57-10	168-38	Y34760 Z49532	43	2.8	0.0	0.0	0.0	3.9	3.9	100.0
H19	7/ 6	57-10	169-10	Y34877 Z49744	42	2.6	0.0	0.0	0.8	8.4	9.2	90.9
H19	7/ 6	57-20	168-59	0 0	39	3.1	0.0	0.0	0.0	15.7	15.7	100.0
H20	7/ 9	57-19	169-36	Y34911 Z49901	35	2.7	0.0	0.0	0.7	1.3	2.0	66.8
H20	7/ 8	57-09	169-51	Y35040 Z50021	28	4.5	1.4	0.0	2.9	9.4	13.7	68.4
H21	7/ 8	57-06	170-28	X18652 Y35112	27	5.8	4.1	0.0	0.0	3.0	7.1	42.8
H21	7/ 9	57-20	170-14	X18704 Y34996	32	4.7	0.0	0.0	0.7	1.4	2.1	66.7
I01	7/ 1	57-39	167-45	Y34363 Z49128	38	1.8	0.0	0.0	0.0	0.8	0.8	100.0
I03	6/22	57-40	166-30	Y34107 Z48635	37	1.5	0.0	0.0	0.7	0.0	0.7	0.0
I07	6/16	57-40	164-00	Y33663 Z47646	28	3.7	0.0	0.0	0.0	0.9	0.9	100.0
I10	6/12	57-39	162-09	Y33380 Z46913	26	3.7	0.0	0.0	0.0	0.7	0.7	100.0
I18	7/ 5	57-30	168-39	Y34615 Z49498	40	3.2	0.0	0.0	0.0	5.3	5.3	100.0
I18	7/ 5	57-40	168-25	Y34484 Z49376	40	3.0	0.0	0.0	0.0	4.5	4.5	100.0

NOTE: PRE-RECRUIT = 3.0-3.5 IN. WIDTH; LARGE = GREATER THAN 3.5 IN. WIDTH

TABLE 8 DATA FROM THE 1983 EASTERN BERING SEA TRAWL SURVEY WHERE KOREAN HAIR CRAB WERE TAKEN (CONTINUED)

							NUMBER PER MILE TOWED					
								MALES (SEE NOTE)				
STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL	PRERECRUIT	LARGE	TOTAL	PERCENT LARGE
I19	7/ 6	57-29	169-15	Y34748 Z49730	39	3.1	0.0	0.0	0.9	7.7	8.6	90.0
I19	7/ 5	57-40	169-03	Y34606 Z49613	38	.	0.0	0.0	0.7	4.9	5.6	87.5
I20	7/ 9	57-39	169-40	Y34716 Z49822	40	3.1	0.0	0.0	0.0	0.6	0.6	100.0
I20	7/ 9	57-29	169-59	Y34873 Z49977	38	3.2	0.0	0.0	0.0	0.6	0.6	100.0
I26	7/27	57-41	173-24	X17572 Y34439	82	3.8	0.0	0.0	0.0	0.7	0.7	100.0
J03	6/22	58-00	166-31	Y33949 Z48597	34	1.4	0.0	0.0	0.0	0.6	0.6	100.0
J18	7/ 4	57-50	168-38	Y34427 Z49417	40	2.5	0.0	0.0	0.0	0.6	0.6	100.0
J18	/	58-00	168-24	Y34288 Z49293			0.0	0.0	0.0	0.0	0.0	0.0
J19	7/ 4	57-50	169-13	Y34524 Z49619	35	2.7	0.0	0.0	1.4	2.8	4.2	66.7
J19	/	58-01	169-03	Y34386 Z49511			0.0	0.0	0.0	0.0	0.0	0.0
K01	7/ 1	58-18	167-49	Y34005 Z49017	33	1.3	0.0	0.0	0.0	0.6	0.6	100.0
K02	7/ 2	58-19	167-10	Y33898 Z48788	30	4.2	0.7	0.0	0.0	0.7	1.4	50.0
K03	6/22	58-20	166-32	Y33772 Z48547	27	2.9	0.8	0.0	0.0	0.8	1.5	50.0
K05	6/19	58-18	165-19	Y33595 Z48101	25	3.2	0.0	0.0	0.0	0.7	0.7	100.0
K19	7/ 4	58-21	169-06	Y34162 Z49414	37	1.6	0.0	0.0	0.0	0.8	0.8	100.0
L01	7/ 1	58-39	167-51	Y33797 Z48940	26	3.0	0.7	0.0	0.0	0.7	1.4	50.0
L02	7/ 2	58-39	167-12	Y33701 Z48724	25	4.3	0.0	0.0	0.0	0.7	0.7	100.0
L03	6/21	58-40	166-32	Y33587 Z48488	23	4.4	0.0	0.0	0.0	1.6	1.6	100.0
L05	6/19	58-39	165-17	Y33409 Z48046	22	4.1	0.0	0.0	0.0	0.7	0.7	100.0
M01	7/ 1	58-59	167-53	Y33579 Z48856	22	4.4	0.0	0.0	0.0	0.7	0.7	100.0
M02	7/ 2	58-59	167-13	Y33493 Z48651	22	5.4	0.0	1.9	0.6	0.6	3.2	20.1
M18	7/ 4	59-00	168-30	Y33639 Z49033	26	2.8	0.6	0.0	0.0	0.6	1.2	50.0
M19	7/ 4	59-00	169-09	Y33700 Z49204	28	1.6	0.7	0.0	0.0	0.0	0.7	0.0
N01	7/ 2	59-19	167-55	Y33357 Z48776	21	4.4	0.0	0.0	0.0	2.4	2.4	100.0
N18	7/ 3	59-20	168-32	Y33403 Z48937	24	3.7	1.3	0.6	0.0	0.6	2.5	25.0
O18	7/ 3	59-40	168-36	Y33167 Z48853	22	3.7	0.0	1.3	0.6	0.6	2.5	25.0
P22	7/12	60-00	171-16	X17944 Y33075	39	-.4	0.0	0.0	0.0	0.7	0.7	100.0
P23	7/12	60-01	171-59	X17799 Y33084	36	-.5	0.0	0.0	0.8	0.0	0.8	0.0
P23	/	59-50	172-09	X17789 Y33200			0.0	0.0	0.0	0.0	0.0	0.0
Z05	6/17	54-40	165-09	Y34606 Z48029	46	5.3	0.0	0.0	0.0	0.6	0.6	100.0

NOTE: PRE-RECRUIT = 3.0-3.5 IN. WIDTH; LARGE = GREATER THAN 3.5 IN. WIDTH

Table 9. -- Summary data taken aboard the F/V American Eagle during May 1983.

Observation	Zhemchug Canyon	Pribilof Canyon
Dates	5/11 - 5/15	5/8 - 5/10
Number of pots	87	51
Maximum Latitude	58°33'	56°12'
Minimum Latitude	57°42'	55°59'
Maximum Longitude	175°15'	168°38'
Minimum Longitude	174°21'	168°25'
Soak time (hours)	9 - 24	9 - 30
Range of depth (fm)	46 - 386	100 - 298
Average depth for males	188	224
Average depth for females	184	224
Total males measured	551	288
Legal males measured	250	149
% legal	50	52
Total females measured	854	1114
Female size at maturity (mm)	107	94
Average female size at maturity (mm)	100	

Table 10. -- Position data for brown king crab fishing during tagging operations aboard the F/V Valiant in July 1983.

		LORAN C				POSITION					
		First Pot		Last Pot		Fist Pot		Last Pot			
Date	Set #	SH7-X	SH7-Y	SH7-X	SH7-Y	Lat	Long	Lat	Long	Distance Between Pots (NM)	Average Depth (fm)
7/7	13	17280	34001	17340	34188	58°23'	174°19'	58°03'	174°06'	0.5	190
7/8	14	17408	34317	17436	34378	57°50'	173°53'	57°43'	173°34'	0.5	195
7/9	15	17408	34317	17436	34378	57°50'	173°53'	57°43'	173°34'	0.5	195
7/10	16	17408	34317	17436	34378	57°50'	173°53'	57°43'	173°34'	0.5	195
7/12	17	17774	34938	17831	34969	56°37'	172°27'	56°35'	172°16'	0.5	150
7/14	18	18461	34946	18398	35007	56°01'	168°24'	55°56'	168°48'	0.5	210
7/15	19	18391	35011	18303	34998	55°55'	168°52'	55°56'	168°48'	0.5	210
7/16	20	18396	35007	18406	34993	55°56'	168°48'	55°56'	168°41'	0.5	200
7/17	21	18464	35047	18460	35070	56°13'	169°69'	56°15'	169°25'	0.5	170
7/18	22	18457	35059	18460	35070	56°13'	169°19'	56°15'	169°25'	0.5	175

Table 11. -- Catch data for brown king crab taken during tagging operation aboard F/V Valiant in July 1983.

Date	Set #	Number of pots	Total caught	Total legal	% legal tagged	Total females
7/7/83	13	21	35 1/	--	---	3
7/8/83	14	20	422	104	25%	287
7/9/83	15	25	310	95	31%	239
7/10/83	16	24	357	86	24%	384
7/12/83	17	20	000	00	00%	00
7/14/83	18	26	79	40	57%	137
7/15/83	19	28	154	104	68%	813
7/16/83	20	35	129	83	64%	345
7/17/83	21	25	487	384	79%	00
7/18/83	22	15	524	404	77%	2
TOTALS		239	2488	1300	53%	2210

1/ These crab were tagged the following day.

TABLE 12 : DATA FROM OBSERVERS ON JAPANESE TRAWLERS IN THE BERING SEA IN 1981
NUMBERS OF GOLDEN KING CRABS PER 12-HOUR TRAWL

			MALES (SEE NOTE)				
LATITUDE	LONGITUDE	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	% LEGAL
60-45	179-30 W	27.1	4.9	16.7	0.2	48.8	0.3
60-45	178-30 W	32.6	3.4	6.9	0.0	42.9	0.0
60-15	179-30 W	23.8	4.0	10.8	0.5	39.1	1.2
60-15	178-30 W	29.0	3.1	15.9	0.2	48.2	0.4
59-45	178-30 W	61.4	24.9	77.2	0.7	164.3	0.4
59-15	179-30 W	7.8	11.7	1.9	0.0	21.4	0.0
59-15	178-30 W	43.2	15.4	23.1	0.8	82.5	0.9
59-15	177-30 W	14.7	14.5	4.8	1.7	35.7	4.6
58-45	178-30 W	35.4	17.0	15.5	1.6	69.4	2.3
58-45	177-30 W	25.8	26.2	10.1	2.5	64.6	3.9
58-45	176-30 W	19.4	18.0	4.4	2.5	44.2	5.7
58-45	175-30 W	10.4	8.5	0.8	5.0	24.6	20.3
58-45	174-30 W	11.3	7.2	1.4	4.2	24.1	17.4
58-15	178-30 W	1.8	1.8	0.0	0.0	3.7	0.0
58-15	175-30 W	10.7	8.7	1.2	2.2	22.8	9.8
58-15	174-30 W	17.7	12.2	9.1	5.2	44.3	11.8
57-45	174-30 W	8.8	14.5	1.4	8.0	32.7	24.5
57-45	173-30 W	12.1	5.4	3.0	3.2	23.7	13.7
57-15	173-30 W	7.5	5.3	3.4	3.3	19.6	16.9
56-45	173-30 W	5.3	4.2	3.2	1.3	13.9	9.2
56-45	172-30 W	5.2	6.3	3.3	0.6	15.4	3.7
56-45	171-30 W	6.3	9.1	1.9	0.8	18.2	4.6
56-45	170-30 W	7.2	3.6	0.0	0.0	10.8	0.0
56-15	172-30 W	6.7	3.1	5.5	1.0	16.3	6.0
56-15	171-30 W	6.7	12.4	4.5	2.0	25.7	8.0
56-15	170-30 W	16.9	54.6	7.4	7.9	86.8	9.2
56-15	169-30 W	6.4	35.4	0.0	29.4	71.2	41.2
56-15	168-30 W	22.5	10.3	0.7	9.0	42.5	21.2
55-45	170-30 W	1.4	37.1	1.0	10.6	50.1	21.2
55-45	169-30 W	5.3	0.0	5.3	0.0	10.7	0.0
55-45	168-30 W	5.7	7.4	0.3	4.0	17.3	22.9
55-15	168-30 W	9.8	10.2	1.0	9.9	30.9	32.1
55-15	167-30 W	47.0	11.4	1.2	4.2	63.8	6.6
54-45	167-30 W	24.0	37.1	0.0	19.6	80.7	24.3
54-45	166-30 W	13.2	14.8	0.0	13.9	42.0	33.2
54-45	165-30 W	0.0	6.0	0.0	0.0	6.0	0.0
53-15	170-30 W	0.0	5.3	0.0	8.0	13.3	60.0
53-15	169-30 W	0.8	28.6	0.0	8.7	38.0	22.9
52-45	172-30 E	63.1	18.8	30.4	7.5	119.9	6.3
52-45	179-30 W	15.3	43.6	0.0	15.3	74.2	20.6
52-45	173-30 W	37.2	9.6	3.0	1.2	51.0	2.4
52-45	171-30 W	0.0	6.5	0.0	36.5	42.9	85.0
52-45	170-30 W	4.9	7.0	4.4	6.3	22.6	27.7
52-15	172-30 E	27.4	8.4	2.3	9.8	47.9	20.4
52-15	173-30 E	12.9	33.6	0.7	12.7	59.8	21.2
52-15	174-30 E	19.2	86.1	0.6	17.5	123.4	14.1

NOTE: FOR PRIBILOF AND NORTHERN DISTRICTS, PRERECRUIT = 3.85 TO 5.50 IN AND LEGAL = GREATER THAN 5.50 IN
FOR ELSEWHERE, PRERECRUITS = 4.55 TO 6.50 IN AND LEGALS = GREATER THAN 6.50 IN

TABLE 12: DATA FROM OBSERVERS ON JAPANESE TRAWLERS IN THE BERING SEA IN 1981
NUMBERS OF GOLDEN KING CRABS PER 12-HOUR TRAWL

LATITUDE	LONGITUDE	FEMALES	MALES (SEE NOTE) SMALL	PRERECRUIT	LEGAL	TOTAL	% LEGAL
52-15	175-30 E	29.5	9.6	0.9	2.7	42.8	6.4
52-15	176-30 E	126.0	15.2	7.3	11.5	160.0	7.2
52-15	179-30 E	28.3	16.6	6.6	6.0	57.6	10.4
52-15	179-30 W	6.7	3.3	0.0	0.0	10.0	0.0
52-15	172-30 W	0.0	0.0	244.8	6.5	251.3	2.6
52-15	171-30 W	4.4	0.0	0.0	12.6	17.0	74.3
52-15	170-30 W	12.2	3.2	0.3	6.1	21.8	28.2
51-45	175-30 E	103.9	4.5	23.7	1.4	133.5	1.1
51-45	177-30 E	8.4	7.7	2.1	10.8	29.0	37.1
51-45	178-30 E	13.2	5.8	0.0	24.1	43.1	56.0
51-45	179-30 E	19.3	14.4	1.1	4.0	38.9	10.3
51-15	177-30 E	0.0	14.4	0.0	19.2	33.6	57.1

NOTE: FOR PRIBILOF AND NORTHERN DISTRICTS, PRERECRUIT = 3.85 TO 5.50 IN AND LEGAL = GREATER THAN 5.50 IN
FOR ELSEWHERE, PRERECRUITS = 4.55 TO 6.50 IN AND LEGALS = GREATER THAN 6.50 IN

TABLE 13 : DATA FROM OBSERVERS ON JAPANESE TRAWLERS IN THE BERING SEA IN 1982
NUMBERS OF GOLDEN KING CRABS PER 12-HOUR TRAWL

			MALES (SEE NOTE)				
LATITUDE	LONGITUDE	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	% LEGAL
60-45	179-30 W	16.7	5.6	8.5	1.0	31.8	3.1
60-45	178-30 W	16.6	10.4	2.7	14.5	44.1	32.8
60-15	179-30 W	16.7	2.4	9.6	0.6	29.4	1.9
60-15	178-30 W	13.3	3.5	5.0	1.0	22.8	4.5
59-45	179-30 W	8.2	1.7	2.0	0.3	12.3	2.8
59-45	178-30 W	16.9	5.1	2.6	3.7	28.3	13.0
59-45	177-30 W	0.0	3.9	0.0	62.3	66.2	94.1
59-15	178-30 W	13.6	8.6	3.5	1.4	27.1	5.0
59-15	177-30 W	33.9	18.5	8.4	6.6	67.4	9.8
58-45	178-30 W	9.2	10.0	2.4	1.0	22.6	4.3
58-45	177-30 W	8.1	4.3	3.4	1.0	16.8	5.8
58-45	176-30 W	6.0	4.7	2.6	0.6	13.9	4.4
58-45	175-30 W	4.4	6.0	0.8	1.7	12.8	13.4
58-15	178-30 W	3.6	1.8	0.0	0.0	5.5	0.0
58-15	175-30 W	2.6	3.0	0.5	0.3	6.4	5.3
57-45	174-30 W	10.6	12.5	3.1	12.9	39.2	32.9
57-45	173-30 W	3.4	2.8	0.7	3.0	9.8	30.6
57-15	173-30 W	7.8	7.4	2.9	2.5	20.6	12.0
56-45	173-30 W	1.4	1.3	1.8	0.5	5.1	10.2
56-45	172-30 W	4.9	4.1	4.0	3.6	16.5	21.6
56-45	171-30 W	0.0	1.5	0.0	3.2	4.7	68.3
56-15	172-30 W	15.4	0.6	21.0	0.0	36.9	0.0
56-15	171-30 W	1.4	2.3	0.3	3.9	8.0	49.2
56-15	169-30 W	5.0	9.9	0.0	0.0	14.9	0.0
56-15	168-30 W	17.0	8.2	0.0	1.9	27.1	7.0
55-45	170-30 W	3.3	36.1	3.0	22.7	65.2	34.9
55-45	168-30 W	7.9	2.8	0.3	5.8	16.7	34.5
55-15	168-30 W	0.3	0.7	1.0	0.4	2.4	15.0
55-15	167-30 W	1.3	2.1	0.4	1.7	5.5	31.7
54-45	167-30 W	7.2	5.8	2.7	1.7	17.4	9.8
54-45	166-30 W	5.8	9.4	2.6	0.5	18.3	2.9
54-45	165-30 W	7.0	13.0	1.9	1.6	23.5	6.8
54-15	179-30 E	2.7	6.3	1.9	0.7	11.7	6.0
54-15	179-30 W	30.0	12.0	3.0	0.0	45.0	0.0
53-45	179-30 E	15.8	28.8	3.2	0.0	47.8	0.0
52-45	171-30 E	22.2	1.2	12.6	0.0	36.0	0.0
52-45	172-30 E	6.3	2.8	9.8	0.8	19.7	4.1
52-45	174-30 E	72.0	24.0	24.0	0.0	120.0	0.0
52-45	179-30 E	0.0	1.7	0.0	1.7	3.3	50.0
52-45	179-30 W	1.0	4.5	0.0	3.9	9.4	41.5
52-45	170-30 W	3.5	0.0	0.0	1.8	5.3	33.3
52-15	173-30 E	12.9	9.1	2.3	5.5	29.9	18.4
52-15	174-30 E	21.3	9.8	8.2	6.3	45.6	13.8
52-15	178-30 E	6.0	7.5	2.4	0.3	16.3	1.9
52-15	179-30 E	6.9	7.2	1.9	2.6	18.6	13.8
52-15	179-30 W	4.6	2.3	0.0	0.0	6.9	0.0

NOTE: FOR PRIBILOF AND NORTHERN DISTRICTS, PRERECRUIT = 3.85 TO 5.50 IN AND LEGAL = GREATER THAN 5.50 IN
FOR ELSEWHERE, PRERECRUITS = 4.55 TO 6.50 IN AND LEGALS = GREATER THAN 6.50 IN

TABLE 13 : DATA FROM OBSERVERS ON JAPANESE TRAWLERS IN THE BERING SEA IN 1982
NUMBERS OF GOLDEN KING CRABS PER 12-HOUR TRAWL

			MALES (SEE NOTE)				
LATITUDE	LONGITUDE	FEMALES	SMALL	PRERECRUIT	LEGAL	TOTAL	% LEGAL
52-15	171-30 W	39.5	6.0	0.0	23.5	69.0	34.0
51-45	174-30 E	10.3	5.1	5.1	0.0	20.6	0.0
51-45	177-30 E	7.1	3.4	2.3	2.7	15.5	17.7
51-45	178-30 E	42.7	51.5	19.2	2.4	115.8	2.1
51-45	179-30 E	39.3	16.0	11.5	7.2	74.0	9.7
51-15	179-30 W	92.6	52.9	8.4	8.8	162.7	5.4

NOTE: FOR PRIBILOF AND NORTHERN DISTRICTS, PRERECRUIT = 3.85 TO 5.50 IN AND LEGAL = GREATER THAN 5.50 IN
FOR ELSEWHERE, PRERECRUITS = 4.55 TO 6.50 IN AND LEGALS = GREATER THAN 6.50 IN