



**Northwest and
Alaska Fisheries
Center**

National Marine
Fisheries Service

U.S. DEPARTMENT OF COMMERCE

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**PacFIN Statistical Summary
1984 Joint Venture
Logbook Data**

January 1986

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1984 Joint Venture Logbook Data

by

Renold E. Narita

January 1986

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INTRODUCTION

This statistical report summarizes the 1984 joint venture logbook data in the Pacific Fisheries Information Network (PacFIN) database. These data were obtained from logsheets voluntarily submitted by fishermen (Figure 1).

Since 1982, the number of logsheets submitted has steadily increased. As of December 1985, the numbers of logsheets received were as follows:

<u>Year of Data</u>	<u>Logsheets Received</u>
1982	87
1983	672
1984	1607
1985	2392

This summary report comprises a series of database retrievals for statistical areas of the International North Pacific Fisheries Commission (INPFC) (Figure 2). Also, retrievals have been run for all these areas combined (ALL NORTHEASTERN PACIFIC OCEAN and BERING SEA) and all Alaskan areas. An explanation of retrieval definitions is given in Figure 3.

Data from the Alaska joint venture fisheries predominated in the overall 1984 data (see below). The number of catcher boats and processor vessels fishing in Alaska areas were 91 and 73 percent of the total vessel numbers, respectively, while the number of tows recorded was 85 percent of all 1984 tows entered into the database. Alaskan catch and effort both equaled 91 percent of the northeastern Pacific Ocean and Bering Sea total.

<u>Number</u>	<u>Alaska only</u>	<u>NE PAC/ Bering Sea</u>	<u>Percent Alaska</u>
Catcher vessels	31	34	91
Processor vessels	56	77	73
No. of tows	7,339	8,635	85
Catch (mt)	205,394.1	224,753.6	91
Hours trawled	24,191.1	26,547.9	91
Catch/hrs. trawled	8.490	8.466	--

The format of the JVLOG Database Retrieval will be revised during 1986 to make it easier to read. An addendum has been added to this report showing a new proposed format which will report all the information presently given. Examples for three areas are presented: 1) the eastern Bering Sea/Shumagin area, 2) all Alaska waters, and 3) all northeastern Pacific Ocean and Bering Sea (all areas combined).

JOINT VENTURE TRAWL LOG

Vessel Name Bering JV
 Official Number 12345678
 Crew Size 4

Departure May 3 1983
 Return May 5 1983
 Gallons of Fuel Used 750

DATE mo./day	T O W N I D	PROCESSING VESSEL (PV) DELIVERY I.D. NO. (ID)	TIME local 24-hr. clock	AREA				DEPTH fathoms		TEMP at net °C	NET TYPE	RPM	HAUL WEIGHT mt	CATCH BY CATEGORIES					COMMENTS
				LORAN OR LATITUDE		LORAN OR LONGITUDE		BLOCK NO.	Bottom					Net	yellowfin sole	Cod	Meal	TOTAL	
				Ch microseconds	Ch microseconds	Ch microseconds	Ch microseconds												
5/4	1	PV JV MARU ID 5-4-1	Set 0131	99 307	33000	99 902	45500	29	4	3	1750	20	15.3	2.4	2.5	20.2			
			Up 0422		32950		45520												
			Del 0450		32945		45523												
5/4	2	PV JV MARU ID 5-4-2	Set 0630		32841		45550	33	4	3	1700	25	24.5	3.2	0.2	27.9			
			Up 0850		33002		45600												
			Del 0920		33009		45610												
5/4	3	PV JV MARU ID 5-4-3	Set 1200		33100		45760	25	5	3	1650	20	14.5	1.4	2.3	18.2			
			Up 1510		33175		45769												
			Del 1530		33180		45780												
5/5	4	PV JV MARU ID 5-5-1	Set 0007		33300		46250	29	5	3	1650	15	10.6	3.0	1.1	14.7			
			Up 0316		33250		46255												
			Del 0350		33255		46260												
5/5	5	PV JV MARU ID 5-5-2	Set 0521		33100		46300	28	6	3	1400	3	2.5	0.7	3.2	Engine problems - returned to port			
			Up 0818		33160		46325												
			Del 0840		33155		46300												
		PV	Set																
			Up																
		ID	Del																
		PV	Set																
			Up																
		ID	Del																

Figure 1. - Example of Alaska, Washington, Oregon, and California joint venture logsheet.

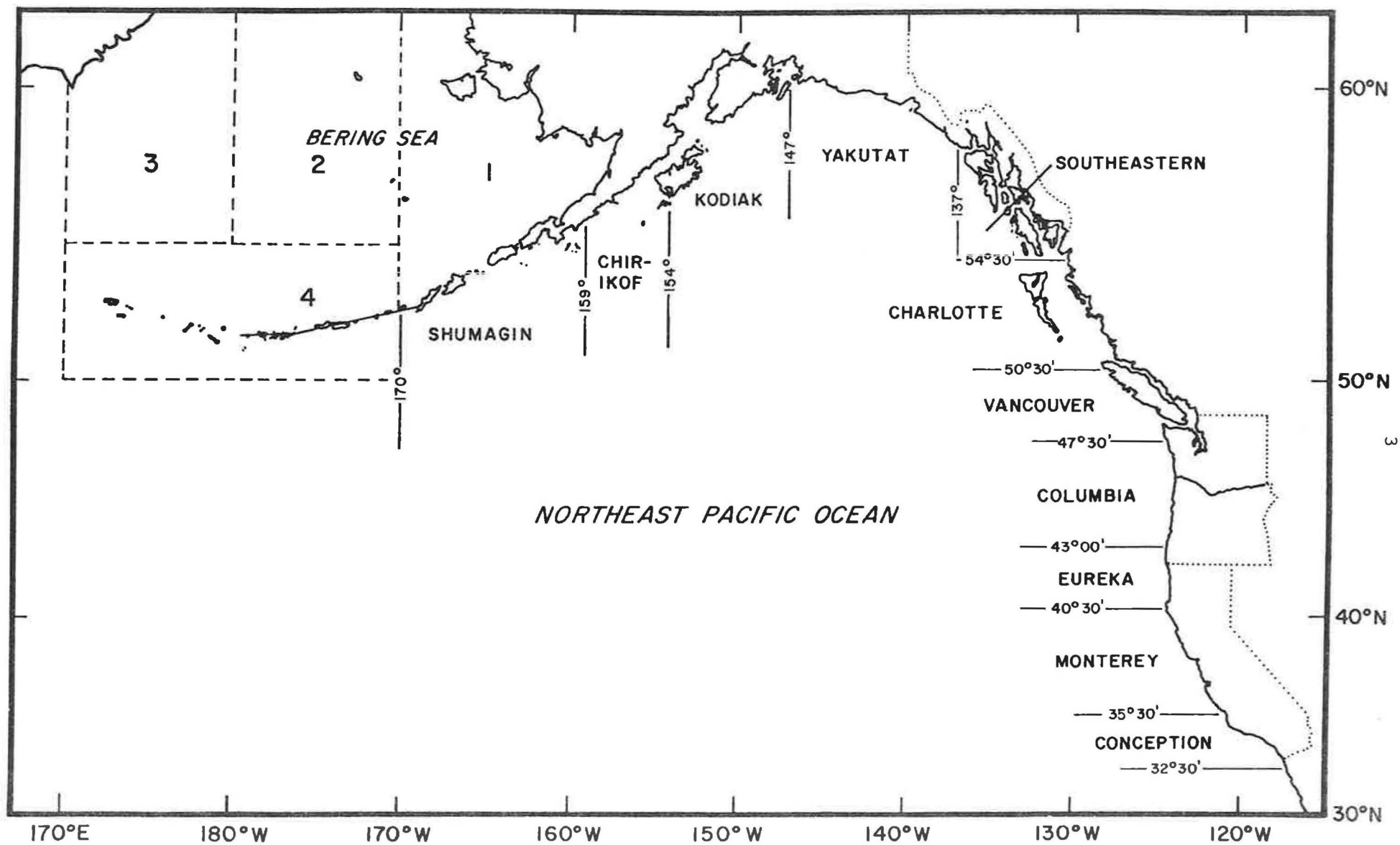


Figure 2. - Statistical areas of the Bering Sea and northeastern Pacific Ocean

EXPLANATION OF DATABASE RETRIEVAL

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 16:10

SELECTION CRITERIA: ALL AREAS; ALL CATCH CATEGORIES: NE PACIFIC/BERING SEA (ALL AREAS)
 BDATE=840101, EDATE=841231, LATLB=0, LATUB=9000, LNGLB=0, LNGUB=18000,

COUNT=8635, NUM_CBS=34, NUM_PVS=77, ACTUAL_BDATE=840101, ACTUAL_EDATE=841231,

TOW DURATION IN HOURS: COUNT=8171
 AVERAGE=3.24903928528, MINIMUM=0.0, MAXIMUM=12.0, SUM=26347.9,

HAIL WEIGHT IN METRIC TONS: COUNT=3837
 AVERAGE=19.3529841022, MINIMUM=0.0, MAXIMUM=65.7, SUM=74257.4,

TOTAL WEIGHT IN METRIC TONS: COUNT=5815
 AVERAGE=31.5890283738, MINIMUM=0.1, MAXIMUM=88.5, SUM=183690.2,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=8051
 AVERAGE=27.9162340082, MINIMUM=0.1, MAXIMUM=71.0, SUM=224753.6,

CATCH PER HOUR IN MTONS/HR: COUNT=7569
 AVERAGE=14.5757251787, MINIMUM=0.0279069767441, MAXIMUM=2616.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=8085
 AVERAGE=5517 MINIMUM=4100 MAXIMUM=6106

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=8080
 AVERAGE=15938 MINIMUM=12400 MAXIMUM=17954

UP LATITUDE IN DEGREES AND MINUTES: COUNT=7718
 AVERAGE=5317 MINIMUM=4056 MAXIMUM=5958

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=7715
 AVERAGE=15934 MINIMUM=12405, MAXIMUM=17956

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=2433
 AVERAGE=5622 MINIMUM=4326 MAXIMUM=5957

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=2429
 AVERAGE=16357 MINIMUM=12404 MAXIMUM=17938

BOTTOM DEPTH IN FATHOMS: COUNT=8106 AVG= 79.41 MIN=12 MAX=350

NET DEPTH IN FATHOMS: COUNT=1860 AVG= 72.13 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=376 AVG= 6.11 MIN=2 MAX=9

ENGINE SPEED IN RPM: COUNT=2145 AVG=1662.67 MIN=670 MAX=3800

NUMBER OF CATCH CATEGORIES: COUNT=2460 AVG= 2.89 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=484
 AVERAGE=2.55347520661, MINIMUM=0.0, MAXIMUM=11.75, SUM=1236.85,

SUM OF CATCH / SUM OF HOURS = 8.466 METRIC TONS PER HOUR

SELECTION CRITERIA

ALL CATCH CATEGORIES = All species included.

BDATE = Begin date } Time period selected (YYMMDD)
EDATE = End date }

LATLB = Latitude Lower Bound } Boundary coordinates for area selected
LATUB = Latitude Upper Bound }
LNGLB = Longitude Lower Bound }
LNGUB = Longitude Upper Bound }

COUNT = Number of tow records for selected time period and area.
NUM CBS = Number of catcher boats.
NUM PVS = Number of processor vessels.
ACTUAL BDATE = Actual Begin Date } Limits of actual time period
ACTUAL EDATE = Actual End Date } of fishing

TOW DURATION IN HOURS. Definition: Effort in hours trawled.
 Calculated for every tow for which the "SET" and "UP" times were recorded on a logsheet. "SET" is the time at which the trawl brake is set and "UP" is the time at which the haulback of the net begins.
COUNT = Number of tow records for which tow duration could be calculated.
AVERAGE = Average number of hours trawled for those tow records for which tow duration was calculated: SUM/COUNT.
MINIMUM and MAXIMUM = Range for calculated tow durations.
SUM = Sum of hours trawled for all tow records which gave both "SET" and "UP" times.

HAIL WEIGHT IN METRIC TONS. Definition: Estimated round weight of codend.
 An input data item.
COUNT = Number of tow records which gave this data item
AVERAGE = SUM/COUNT.
MINIMUM and MAXIMUM = Range for this data item.
SUM = Sum of data item.
 (COUNT, AVERAGE, MINIMUM, MAXIMUM and SUM for following data items have same explanation as above).

TOTAL WEIGHT IN METRIC TONS. Data from processor. Total weight of all species and grades of fish. An input data item.
CATCH IN METRIC TONS. Equal to HAIL WEIGHT, unless HAIL WEIGHT is not given, then CATCH = TOTAL WEIGHT. CATCH is a combination of HAIL WEIGHT and TOTAL WEIGHT resulting in more weight estimates.

CATCH PER HOUR IN MTONS/HR.
 Calculated from those tow records of the preceding CATCH IN METRIC TONS which also gave TOW DURATION data.

Figure 3. - Example of typical JVLOG database retrieval output and explanation of output.

EXPLANATION OF DATABASE RETRIEVAL

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 16:10

SELECTION CRITERIA: ALL AREAS; ALL CATCH CATEGORIES: NE PACIFIC/BERING SEA (ALL AREAS)
 BDATE=840101, EDATE=841231, LATLB=0, LATUB=9000, LNGLB=0, LNGUB=18000,

COUNT=8635, NUM_CBS=34, NUM_PVS=77, ACTUAL_BDATE=840101, ACTUAL_EDATE=841231,

TOW DURATION IN HOURS: COUNT=8171
 AVERAGE=3.24903928528, MINIMUM=0.0, MAXIMUM=12.0, SUM=26547.9,

HAIL WEIGHT IN METRIC TONS: COUNT=3837
 AVERAGE=19.3529841022, MINIMUM=0.0, MAXIMUM=65.7, SUM=74257.4,

TOTAL WEIGHT IN METRIC TONS: COUNT=5815
 AVERAGE=31.5890283738, MINIMUM=0.1, MAXIMUM=88.5, SUM=183690.2,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=8031
 AVERAGE=27.9162340082, MINIMUM=0.1, MAXIMUM=71.0, SUM=224753.6,

CATCH PER HOUR IN MTONS/HR: COUNT=7569
 AVERAGE=14.5757251787, MINIMUM=0.0279069767441, MAXIMUM=2616.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=8085
 AVERAGE=5517 MINIMUM=4100 MAXIMUM=6106

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=8080
 AVERAGE=15938 MINIMUM=12400 MAXIMUM=17954

UP LATITUDE IN DEGREES AND MINUTES: COUNT=7718
 AVERAGE=5517 MINIMUM=4056 MAXIMUM=5958

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=7715
 AVERAGE=15934 MINIMUM=12405, MAXIMUM=17956

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=2433
 AVERAGE=5622 MINIMUM=4326 MAXIMUM=5957

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=2429
 AVERAGE=16357 MINIMUM=12404 MAXIMUM=17938

BOTTOM DEPTH IN FATHOMS: COUNT=8106 AVG= 79.41 MIN=12 MAX=350

NET DEPTH IN FATHOMS: COUNT=1860 AVG= 72.13 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=376 AVG= 6.11 MIN=2 MAX=9

ENGINE SPEED IN RPM: COUNT=2145 AVG=1662.67 MIN=670 MAX=3800

NUMBER OF CATCH CATEGORIES: COUNT=2460 AVG= 2.89 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=484
 AVERAGE=2.55547520661, MINIMUM=0.0, MAXIMUM=11.75, SUM=1236.85,

SUM OF CATCH / SUM OF HOURS = 8.466 METRIC TONS PER HOUR

SET LATITUDE
SET LONGITUDE
UP LATITUDE
UP LONGITUDE
DEL LATITUDE
DEL LONGITUDE

Location of fishing
 SET = where brake set
 UP = where net haulback begins
 DEL = where codend delivered to processor
 (All LORAN readings recorded on logsheets have been converted to coordinates).

BOTTOM DEPTH. Depth of bottom in fathoms.

NET DEPTH. Depth of net in fathoms. For pelagic trawls, average distance of headrope from the surface.

TEMPERATURE. Temperature in Celsius at net depth.

ENGINE SPEED. Speed in RPM.

NUMBER OF CATCH CATEGORIES. Processor's weight breakdown of catch by species or food grade, such as meal grade. The logsheet format allows for a maximum of five categories.

TOW DURATION IN HOURS WHERE CATCH IS NULL. Tow records showing no catch but some effort were not included in the above CATCH PER HOUR IN MTONS/HR calculations, which could result in higher than actual catch per unit effort estimates. Effort for those records are tabulated here.

SUM OF CATCH/SUM OF HOURS. The SUM of CATCH IN METRIC TONS/SUM of TOW DURATION.

UT

Figure 3. (continued) - Example of typical JVLOG database retrieval output and explanation of output.

JOINT VENTURE
DATABASE RETRIEVALS

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1. Northeastern Pacific Ocean and Bering Sea (all areas)	7
2. All Alaskan areas only	8
3. Bering Sea Area 1 and Shumagin 1/	9
4. Bering Sea Area 2	10
5. Bering Sea Area 4 (Aleutian Islands region).....	11
6. Shumagin and part of Bering Sea Area 1 1/	12
7. Chirikof	13
8. Kodiak	14
9. Yakutat	15
10. Vancouver	16
11. Columbia	17
12. Eureka	18

(No fishing was reported in 1984 from the following areas: Bering Sea Area 3, Southeastern, Charlotte, Monterey, or Conception.)

1/ Boundary selection for specifying an area must delineate a rectangular area. When selecting for either Bering Sea Area 1 or the Shumagin area which share a border running diagonally across latitudes and longitudes, it was necessary to include part of the adjacent area.

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 16:10

SELECTION CRITERIA: ALL AREAS; ALL CATCH CATEGORIES: NE PACIFIC/BERING SEA (ALL AREAS)
BDATE=840101, EDATE=841231, LATLB=0, LATUB=9000, LNGLB=0, LNGUB=18000,

COUNT=8635, NUM_CBS=34, NUM_PVS=77, ACTUAL_BDATE=840101, ACTUAL_EDATE=841231,

TOW DURATION IN HOURS: COUNT=8171
AVERAGE=3.24903928528, MINIMUM=0.0, MAXIMUM=12.0, SUM=26547.9,

HAIL WEIGHT IN METRIC TONS: COUNT=3837
AVERAGE=19.3529841022, MINIMUM=0.0, MAXIMUM=65.7, SUM=74257.4,

TOTAL WEIGHT IN METRIC TONS: COUNT=5815
AVERAGE=31.5890283738, MINIMUM=0.1, MAXIMUM=88.5, SUM=183690.2,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=8051
AVERAGE=27.9162340082, MINIMUM=0.1, MAXIMUM=71.0, SUM=224753.6,

CATCH PER HOUR IN MTONS/HR: COUNT=7569
AVERAGE=14.5757251787, MINIMUM=0.0279069767441, MAXIMUM=2616.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=8085
AVERAGE=5517 MINIMUM=4100 MAXIMUM=6106

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=8080
AVERAGE=15938 MINIMUM=12400 MAXIMUM=17954

UP LATITUDE IN DEGREES AND MINUTES: COUNT=7718
AVERAGE=5517 MINIMUM=4056 MAXIMUM=5958

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=7715
AVERAGE=15934 MINIMUM=12405 MAXIMUM=17956

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=2433
AVERAGE=5622 MINIMUM=4326 MAXIMUM=5957

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=2429
AVERAGE=16357 MINIMUM=12404 MAXIMUM=17938

BOTTOM DEPTH IN FATHOMS: COUNT=8106 AVG= 79.41 MIN=12 MAX=350

NET DEPTH IN FATHOMS: COUNT=1860 AVG= 72.13 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=376 AVG= 6.11 MIN=2 MAX=9

ENGINE SPEED IN RPM: COUNT=2145 AVG=1662.67 MIN=670 MAX=3800

NUMBER OF CATCH CATEGORIES: COUNT=2460 AVG= 2.89 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=484
AVERAGE=2.55547520661, MINIMUM=0.0, MAXIMUM=11.75, SUM=1236.85,

SUM OF CATCH / SUM OF HOURS = 8.466 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:10

SELECTION CRITERIA: ALL CATCH CATEGORIES: ALL ALASKAN AREAS ONLY
 BDATE=840101, EDATE=841231, LATLB=5030, LATUB=6500, LNGLB=12500, LNGUB=18000,
 COUNT=7339, NUM_CBS=31, NUM_PVS=56, ACTUAL_BDATE=840101, ACTUAL_EDATE=841231,

TOW DURATION IN HOURS: COUNT=7003
 AVERAGE=3.4543838355, MINIMUM=0.0, MAXIMUM=12.0, SUM=24191.05,

HAIL WEIGHT IN METRIC TONS: COUNT=2674
 AVERAGE=20.8694091248, MINIMUM=0.0, MAXIMUM=65.7, SUM=55804.8,

TOTAL WEIGHT IN METRIC TONS: COUNT=5111
 AVERAGE=33.7685384455, MINIMUM=0.1, MAXIMUM=88.5, SUM=172591.0,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=6833
 AVERAGE=30.0591394701, MINIMUM=0.1, MAXIMUM=71.0, SUM=205394.1,

CATCH PER HOUR IN MTONS/HR: COUNT=6550
 AVERAGE=15.1205756234, MINIMUM=0.0279069767441, MAXIMUM=2616.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=7339
 AVERAGE=5614 MINIMUM=5101 MAXIMUM=6106

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=7339
 AVERAGE=16307 MINIMUM=14117 MAXIMUM=17954

UP LATITUDE IN DEGREES AND MINUTES: COUNT=6913
 AVERAGE=5617 MINIMUM=5107 MAXIMUM=5958

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=6914
 AVERAGE=16310 MINIMUM=13503 MAXIMUM=17956

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=2238
 AVERAGE=5656 MINIMUM=5118 MAXIMUM=5957

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=2235
 AVERAGE=16600 MINIMUM=12445 MAXIMUM=17938

BOTTOM DEPTH IN FATHOMS: COUNT=7038 AVG= 78.38 MIN=17 MAX=230

NET DEPTH IN FATHOMS: COUNT=1123 AVG= 77.24 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=263 AVG= 5.38 MIN=2 MAX=9

ENGINE SPEED IN RPM: COUNT=1518 AVG=1670.73 MIN=670 MAX=3800

NUMBER OF CATCH CATEGORIES: COUNT=1686 AVG= 3.43 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=423
 AVERAGE=2.618321513, MINIMUM=0.0, MAXIMUM=11.75, SUM=1107.55,

SUM OF CATCH / SUM OF HOURS = 8.490 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES: BERING SEA AREA I AND SHUMAGIN
 BDATE=840101, EDATE=841231, LATLB=5000, LATUB=6500, LNGLB=15700, LNGUB=17000,
 COUNT=3857, NUM_CBS=25, NUM_PVS=28, ACTUAL_BDATE=840108, ACTUAL_EDATE=841127,

TOW DURATION IN HOURS: COUNT=3706
 AVERAGE=3.48445313906, MINIMUM=0.0, MAXIMUM=12.0, SUM=12913.3833333,

HAIL WEIGHT IN METRIC TONS: COUNT=1643
 AVERAGE=15.6325015217, MINIMUM=0.4, MAXIMUM=52.7, SUM=25684.2,

TOTAL WEIGHT IN METRIC TONS: COUNT=2663
 AVERAGE=30.7547127287, MINIMUM=0.1, MAXIMUM=70.5, SUM=81899.799996,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=3709
 AVERAGE=25.4631706655, MINIMUM=0.1, MAXIMUM=69.3, SUM=94442.899998,

CATCH PER HOUR IN MTONS/HR: COUNT=3586
 AVERAGE=11.243632054, MINIMUM=0.0279069767441, MAXIMUM=492.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=3857
 AVERAGE=5547 MINIMUM=5130 MAXIMUM=6106

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=3857
 AVERAGE=16318 MINIMUM=15702 MAXIMUM=16956

UP LATITUDE IN DEGREES AND MINUTES: COUNT=3663
 AVERAGE=5547 MINIMUM=5209 MAXIMUM=5957

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=3663
 AVERAGE=16319 MINIMUM=15508 MAXIMUM=16958

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=1001
 AVERAGE=5515 MINIMUM=5221 MAXIMUM=5806

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=998
 AVERAGE=16449 MINIMUM=15843 MAXIMUM=16957

BOTTOM DEPTH IN FATHOMS: COUNT=3804 AVG= 55.72 MIN=17 MAX=206

NET DEPTH IN FATHOMS: COUNT=415 AVG= 57.47 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=93 AVG= 5.63 MIN=2 MAX=9

ENGINE SPEED IN RPM: COUNT=988 AVG=1821.40 MIN=1025 MAX=3400

NUMBER OF CATCH CATEGORIES: COUNT=1069 AVG= 3.78 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=112
 AVERAGE=3.43645833332, MINIMUM=0.0, MAXIMUM=11.75, SUM=384.883333333,

SUM OF CATCH / SUM OF HOURS = 7.314 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES: BERING SEA AREA 2
BDATE=840101, EDATE=841231, LATLB=5500, LATUB=6500, LNGLB=17000, LNGUB=18000,

COUNT=873, NUM_CBS=12, NUM_PVS=6, ACTUAL_BDATE=840427, ACTUAL_EDATE=840814,

TOW DURATION IN HOURS: COUNT=869
AVERAGE=4.89884925204, MINIMUM=0.0, MAXIMUM=11.8333333334, SUM=4257.1,

HAIL WEIGHT IN METRIC TONS: COUNT=0

TOTAL WEIGHT IN METRIC TONS: COUNT=864
AVERAGE=42.5421296298, MINIMUM=2.0, MAXIMUM=71.0, SUM=36756.4,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=864
AVERAGE=42.5421296298, MINIMUM=2.0, MAXIMUM=71.0, SUM=36756.4,

CATCH PER HOUR IN MTONS/HR: COUNT=864
AVERAGE=11.0464945005, MINIMUM=0.461538461539, MAXIMUM=216.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=873
AVERAGE=5850 MINIMUM=5637 MAXIMUM=5948

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=873
AVERAGE=17354 MINIMUM=17016 MAXIMUM=17926

UP LATITUDE IN DEGREES AND MINUTES: COUNT=866
AVERAGE=5850 MINIMUM=5632 MAXIMUM=5958

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=867
AVERAGE=17355 MINIMUM=17013 MAXIMUM=17927

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=777
AVERAGE=5850 MINIMUM=5632 MAXIMUM=5957

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=777
AVERAGE=17353 MINIMUM=12445 MAXIMUM=17938

BOTTOM DEPTH IN FATHOMS: COUNT=867 AVG= 67.14 MIN=37 MAX=115

NET DEPTH IN FATHOMS: COUNT=44 AVG= 64.82 MIN=23 MAX=80

TEMPERATURE IN CENTIGRADE: COUNT=0

ENGINE SPEED IN RPM: COUNT=0

NUMBER OF CATCH CATEGORIES: COUNT=0

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=5
AVERAGE=3.71666666667, MINIMUM=2.0, MAXIMUM=6.3333333333, SUM=18.5833333334,

SUM OF CATCH / SUM OF HOURS = 8.634 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES: BERING SEA AREA 4
BDATE=840101, EDATE=841231, LATLB=4800, LATUB=5500, LNGLB=17000, LNGUB=18000,

COUNT=647, NUM_CBS=9, NUM_PVS=18, ACTUAL_BDATE=840412, ACTUAL_EDATE=840920,

TOW DURATION IN HOURS: COUNT=560
AVERAGE=2.25107142857, MINIMUM=0.0, MAXIMUM=10.0, SUM=1260.6,

HAIL WEIGHT IN METRIC TONS: COUNT=259
AVERAGE=20.8918918917, MINIMUM=0.5, MAXIMUM=50.0, SUM=5411.0,

TOTAL WEIGHT IN METRIC TONS: COUNT=371
AVERAGE=19.342048517, MINIMUM=0.5, MAXIMUM=88.5, SUM=7175.8999997,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=431
AVERAGE=17.917169373, MINIMUM=0.5, MAXIMUM=50.0, SUM=7722.2999997,

CATCH PER HOUR IN MTONS/HR: COUNT=356
AVERAGE=9.4973671716, MINIMUM=0.251162790699, MAXIMUM=54.75,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=647
AVERAGE=5207 MINIMUM=5101 MAXIMUM=5321

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=647
AVERAGE=17401 MINIMUM=17051 MAXIMUM=17954

UP LATITUDE IN DEGREES AND MINUTES: COUNT=538
AVERAGE=5208 MINIMUM=5107 MAXIMUM=5910

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=538
AVERAGE=17411 MINIMUM=17149 MAXIMUM=17956

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=2
AVERAGE=5145 MINIMUM=5118 MAXIMUM=5211

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=2
AVERAGE=17552 MINIMUM=17238 MAXIMUM=17905

BOTTOM DEPTH IN FATHOMS: COUNT=562 AVG= 86.73 MIN=56 MAX=230

NET DEPTH IN FATHOMS: COUNT=193 AVG= 82.70 MIN=52 MAX=135

TEMPERATURE IN CENTIGRADE: COUNT=0

ENGINE SPEED IN RPM: COUNT=129 AVG=1353.88 MIN=900 MAX=2400

NUMBER OF CATCH CATEGORIES: COUNT=314 AVG= 3.61 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=192
AVERAGE=1.59513888888, MINIMUM=0.0, MAXIMUM=6.0, SUM=306.266666666,

SUM OF CATCH / SUM OF HOURS = 6.126 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES: SHUMAGIN AND PART OF BERING SEA I
 BDATE=840101, EDATE=841231, LATLB=5000, LATUB=5600, LNGLB=15900, LNGUB=17000,
 COUNT=2437, NUM_CBS=22, NUM_PVS=23, ACTUAL_BDATE=840108, ACTUAL_EDATE=841127,

TOW DURATION IN HOURS: COUNT=2354
 AVERAGE=3.9059756443, MINIMUM=0.0, MAXIMUM=12.0, SUM=9194.6666667,

HAIL WEIGHT IN METRIC TONS: COUNT=520
 AVERAGE=12.6326923077, MINIMUM=0.4, MAXIMUM=52.0, SUM=6569.0,

TOTAL WEIGHT IN METRIC TONS: COUNT=2047
 AVERAGE=33.1466047867, MINIMUM=0.1, MAXIMUM=70.5, SUM=67851.099998,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=2347
 AVERAGE=29.8515977837, MINIMUM=0.1, MAXIMUM=69.3, SUM=70061.699998,

CATCH PER HOUR IN MTONS/HR: COUNT=2282
 AVERAGE=11.4183718155, MINIMUM=0.0279069767441, MAXIMUM=236.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=2437
 AVERAGE=5456 MINIMUM=5130 MAXIMUM=5600

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=2437
 AVERAGE=16453 MINIMUM=15957 MAXIMUM=16857

UP LATITUDE IN DEGREES AND MINUTES: COUNT=2330
 AVERAGE=5457 MINIMUM=5209 MAXIMUM=5957

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=2330
 AVERAGE=16454 MINIMUM=15935 MAXIMUM=16856

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=929
 AVERAGE=5509 MINIMUM=5221 MAXIMUM=5606

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=928
 AVERAGE=16501 MINIMUM=16028 MAXIMUM=16745

BOTTOM DEPTH IN FATHOMS: COUNT=2403 AVG= 68.88 MIN=17 MAX=206

NET DEPTH IN FATHOMS: COUNT=206 AVG= 79.76 MIN=8 MAX=200

TEMPERATURE IN CENTIGRADE: COUNT=0

ENGINE SPEED IN RPM: COUNT=484 AVG=1630.43 MIN=1025 MAX=3400

NUMBER OF CATCH CATEGORIES: COUNT=496 AVG= 4.16 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=69
 AVERAGE=3.27608695651, MINIMUM=0.0, MAXIMUM=11.75, SUM=226.05,

SUM OF CATCH / SUM OF HOURS = 7.620 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES; CHIRIKOF
BDATE=840101, EDATE=841231, LATLB=5000, LATUB=6000, LNGLB=15400, LNGUB=15900,
COUNT=1502, NUM_CBS=22, NUM_PVS=23, ACTUAL_BDATE=840113, ACTUAL_EDATE=841231,

TOW DURATION IN HOURS: COUNT=1474
AVERAGE=2.8473541384, MINIMUM=0.0, MAXIMUM=11.25, SUM=4197.0,

HAIL WEIGHT IN METRIC TONS: COUNT=496
AVERAGE=39.5951612906, MINIMUM=3.0, MAXIMUM=65.7, SUM=19639.2,

TOTAL WEIGHT IN METRIC TONS: COUNT=1088
AVERAGE=41.5523897072, MINIMUM=1.7, MAXIMUM=66.0, SUM=45209.0000014,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=1468
AVERAGE=41.1412125349, MINIMUM=1.7, MAXIMUM=66.0, SUM=60395.3,

CATCH PER HOUR IN MTONS/HR: COUNT=1441
AVERAGE=30.6852824544, MINIMUM=0.408, MAXIMUM=2616.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=1502
AVERAGE=5727 MINIMUM=5141 MAXIMUM=5959

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=1502
AVERAGE=15508 MINIMUM=15400 MAXIMUM=15856

UP LATITUDE IN DEGREES AND MINUTES: COUNT=1474
AVERAGE=5724 MINIMUM=5144 MAXIMUM=5957

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=1474
AVERAGE=15510 MINIMUM=13503 MAXIMUM=15856

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=452
AVERAGE=5722 MINIMUM=5447 MAXIMUM=5804

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=452
AVERAGE=15513 MINIMUM=15301 MAXIMUM=15843

BOTTOM DEPTH IN FATHOMS: COUNT=1401 AVG= 140.18 MIN=21 MAX=181

NET DEPTH IN FATHOMS: COUNT=452 AVG= 94.60 MIN=8 MAX=190

TEMPERATURE IN CENTIGRADE: COUNT=168 AVG= 5.21 MIN=3 MAX=7

ENGINE SPEED IN RPM: COUNT=350 AVG=1335.86 MIN=670 MAX=3100

NUMBER OF CATCH CATEGORIES: COUNT=182 AVG= 2.21 MIN=1 MAX=5

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=30
AVERAGE=3.75055555558, MINIMUM=0.25, MAXIMUM=8.75, SUM=112.516666668,

SUM OF CATCH / SUM OF HOURS = 14.390 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES: KODIAK
 BDATE=840101, EDATE=841231, LATLB=5000, LATUB=6200, LNGLB=14700, LNGUB=15400,
 COUNT=449, NUM_CBS=19, NUM_PVS=25, ACTUAL_BDATE=840101, ACTUAL_EDATE=841231,
 TOW DURATION IN HOURS: COUNT=386
 AVERAGE=3.91809153713, MINIMUM=0.0, MAXIMUM=10.8333333334, SUM=1512.38333333,
 HAIL WEIGHT IN METRIC TONS: COUNT=265
 AVERAGE=18.2664150936, MINIMUM=0.0, MAXIMUM=53.0, SUM=4840.59999979,
 TOTAL WEIGHT IN METRIC TONS: COUNT=108
 AVERAGE=12.7537037039, MINIMUM=0.4, MAXIMUM=58.0, SUM=1377.4,
 NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=349
 AVERAGE=16.7504297987, MINIMUM=0.4, MAXIMUM=58.0, SUM=5845.8999997,
 CATCH PER HOUR IN MTONS/HR: COUNT=298
 AVERAGE=5.43473707863, MINIMUM=0.133333333333, MAXIMUM=53.0,
 SET LATITUDE IN DEGREES AND MINUTES: COUNT=449
 AVERAGE=5702 MINIMUM=5253 MAXIMUM=5858
 SET LONGITUDE IN DEGREES AND MINUTES: COUNT=449
 AVERAGE=15238 MINIMUM=14721 MAXIMUM=15400
 UP LATITUDE IN DEGREES AND MINUTES: COUNT=378
 AVERAGE=5654 MINIMUM=5229 MAXIMUM=5850
 UP LONGITUDE IN DEGREES AND MINUTES: COUNT=377
 AVERAGE=15240 MINIMUM=14654 MAXIMUM=16022
 DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=7
 AVERAGE=5755 MINIMUM=5741 MAXIMUM=5808
 DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=7
 AVERAGE=15335 MINIMUM=15106 MAXIMUM=15421
 BOTTOM DEPTH IN FATHOMS: COUNT=407 AVG= 87.92 MIN=35 MAX=200
 NET DEPTH IN FATHOMS: COUNT=16 AVG= 55.94 MIN=12 MAX=102
 TEMPERATURE IN CENTIGRADE: COUNT=2 AVG= 7.00 MIN=7 MAX=7
 ENGINE SPEED IN RPM: COUNT=62 AVG=1704.03 MIN=680 MAX=3800
 NUMBER OF CATCH CATEGORIES: COUNT=125 AVG= 1.87 MIN=1 MAX=5
 TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=85
 AVERAGE=3.40352941176, MINIMUM=0.0, MAXIMUM=8.6666666666, SUM=289.3,
 SUM OF CATCH / SUM OF HOURS = 3.865 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:03

SELECTION CRITERIA: ALL CATCH CATEGORIES; YAKUTAT
BDATE=840101, EDATE=841231, LATLB=5300, LATUB=6200, LNGLB=13700, LNGUB=14700,

COUNT=26, NUM_CBS=4, NUM_PVS=8, ACTUAL_BDATE=840214, ACTUAL_EDATE=841210,

TOW DURATION IN HOURS: COUNT=23
AVERAGE=4.35144927535, MINIMUM=0.0, MAXIMUM=8.0, SUM=100.083333333,

HAIL WEIGHT IN METRIC TONS: COUNT=24
AVERAGE=18.1, MINIMUM=2.0, MAXIMUM=35.0, SUM=434.4,

TOTAL WEIGHT IN METRIC TONS: COUNT=20
AVERAGE=17.675, MINIMUM=3.1, MAXIMUM=45.4, SUM=353.5,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=26
AVERAGE=18.5730769231, MINIMUM=2.0, MAXIMUM=45.4, SUM=482.9,

CATCH PER HOUR IN MTONS/HR: COUNT=19
AVERAGE=3.53212763909, MINIMUM=0.7, MAXIMUM=10.6823529411,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=26
AVERAGE=5402 MINIMUM=5315 MAXIMUM=5750

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=26
AVERAGE=14514 MINIMUM=14351 MAXIMUM=14658

UP LATITUDE IN DEGREES AND MINUTES: COUNT=12
AVERAGE=5427 MINIMUM=5314 MAXIMUM=5751

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=12
AVERAGE=14626 MINIMUM=14348 MAXIMUM=15452

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=0

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=0

BOTTOM DEPTH IN FATHOMS: COUNT=13 AVG= 95.92 MIN=78 MAX=160

NET DEPTH IN FATHOMS: COUNT=6 AVG= 59.00 MIN=12 MAX=125

TEMPERATURE IN CENTIGRADE: COUNT=1 AVG= 7.00 MIN=7 MAX=7

ENGINE SPEED IN RPM: COUNT=5 AVG=1675.00 MIN=1625 MAX=1700

NUMBER OF CATCH CATEGORIES: COUNT=5 AVG= 1.00 MIN=1 MAX=1

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=0

SUM OF CATCH / SUM OF HOURS = 4.825 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:06

SELECTION CRITERIA: ALL CATCH CATEGORIES; VANCOUVER
 BDATE=840101, EDATE=841231, LATLB=4730, LATUB=5030, LNGLB=12200, LNGUB=13300,

COUNT=128, NUM_CBS=3, NUM_PVS=17, ACTUAL_BDATE=840527, ACTUAL_EDATE=840914,

TOW DURATION IN HOURS: COUNT=124
 AVERAGE=1.43508064517, MINIMUM=0.0, MAXIMUM=4.25, SUM=177.95,

HAIL WEIGHT IN METRIC TONS: COUNT=120
 AVERAGE=11.85333333333, MINIMUM=1.0, MAXIMUM=25.0, SUM=1422.4,

TOTAL WEIGHT IN METRIC TONS: COUNT=89
 AVERAGE=12.0539325844, MINIMUM=0.9, MAXIMUM=26.8, SUM=1072.8,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=122
 AVERAGE=11.7762295081, MINIMUM=1.0, MAXIMUM=25.0, SUM=1436.7,

CATCH PER HOUR IN MTONS/HR: COUNT=117
 AVERAGE=13.7174755642, MINIMUM=0.545454545456, MAXIMUM=64.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=128
 AVERAGE=4746 MINIMUM=4730 MAXIMUM=4820

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=128
 AVERAGE=12452 MINIMUM=12400 MAXIMUM=12518

UP LATITUDE IN DEGREES AND MINUTES: COUNT=124
 AVERAGE=4741 MINIMUM=4256 MAXIMUM=4806

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=124
 AVERAGE=12453 MINIMUM=12405 MAXIMUM=12517

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=30
 AVERAGE=4742 MINIMUM=4730 MAXIMUM=4759

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=30
 AVERAGE=12446 MINIMUM=12404 MAXIMUM=12500

BOTTOM DEPTH IN FATHOMS: COUNT=127 AVG= 70.46 MIN=24 MAX=260

NET DEPTH IN FATHOMS: COUNT=123 AVG= 50.93 MIN=15 MAX=110

TEMPERATURE IN CENTIGRADE: COUNT=12 AVG= 7.92 MIN=7 MAX=8

ENGINE SPEED IN RPM: COUNT=75 AVG=1659.33 MIN=1400 MAX=1750

NUMBER OF CATCH CATEGORIES: COUNT=66 AVG= 1.02 MIN=1 MAX=2

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=6
 AVERAGE=0.986111111111, MINIMUM=0.5, MAXIMUM=1.33333333333, SUM=5.91666666666,

SUM OF CATCH / SUM OF HOURS = 8.074 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:06

SELECTION CRITERIA: ALL CATCH CATEGORIES: COLUMBIA
 BDATE=840101, EDATE=841231, LATLB=4300, LATUB=4730, LNGLB=12200, LNGUB=13300,
 COUNT=586, NUM_CBS=3, NUM_PVS=22, ACTUAL_BDATE=840505, ACTUAL_EDATE=841006,
 TOW DURATION IN HOURS: COUNT=565
 AVERAGE=1.50156342183, MINIMUM=0.0, MAXIMUM=4.83333333333, SUM=848.383333333,
 HAIL WEIGHT IN METRIC TONS: COUNT=569
 AVERAGE=13.3057996485, MINIMUM=1.0, MAXIMUM=60.0, SUM=7571.0,
 TOTAL WEIGHT IN METRIC TONS: COUNT=291
 AVERAGE=14.0037800687, MINIMUM=0.9, MAXIMUM=79.7, SUM=4075.1,
 NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
 CATCH IN METRIC TONS: COUNT=571
 AVERAGE=13.2765323992, MINIMUM=1.0, MAXIMUM=60.0, SUM=7580.9,
 CATCH PER HOUR IN MTONS/HR: COUNT=551
 AVERAGE=11.9039923901, MINIMUM=0.545454545456, MAXIMUM=68.0,
 SET LATITUDE IN DEGREES AND MINUTES: COUNT=586
 AVERAGE=4531 MINIMUM=4301 MAXIMUM=4730
 SET LONGITUDE IN DEGREES AND MINUTES: COUNT=586
 AVERAGE=12436 MINIMUM=12405 MAXIMUM=12530
 UP LATITUDE IN DEGREES AND MINUTES: COUNT=578
 AVERAGE=4530 MINIMUM=4300 MAXIMUM=4734
 UP LONGITUDE IN DEGREES AND MINUTES: COUNT=578
 AVERAGE=12436 MINIMUM=12405 MAXIMUM=12500
 DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=88
 AVERAGE=4613 MINIMUM=4326 MAXIMUM=4735
 DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=88
 AVERAGE=12441 MINIMUM=12412 MAXIMUM=12723
 BOTTOM DEPTH IN FATHOMS: COUNT=581 AVG= 97.32 MIN=12 MAX=350
 NET DEPTH IN FATHOMS: COUNT=569 AVG= 66.59 MIN=15 MAX=150
 TEMPERATURE IN CENTIGRADE: COUNT=91 AVG= 7.80 MIN=7 MAX=8
 ENGINE SPEED IN RPM: COUNT=495 AVG=1631.92 MIN=1325 MAX=1800
 NUMBER OF CATCH CATEGORIES: COUNT=465 AVG= 1.01 MIN=1 MAX=2
 TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=14
 AVERAGE=1.49761904763, MINIMUM=0.533333333333, MAXIMUM=3.0, SUM=20.9666666668,
 SUM OF CATCH / SUM OF HOURS = 8.936 METRIC TONS PER HOUR

PACFIN JVLOG DATABASE RETRIEVAL 02JAN86 14:06

SELECTION CRITERIA: ALL CATCH CATEGORIES; EUREKA
BDATE=840101, EDATE=841231, LATLB=4030, LATUB=4300, LNGLB=12200, LNGUB=13300,

COUNT=24, NUM_CBS=2, NUM_PVS=4, ACTUAL_BDATE=840513, ACTUAL_EDATE=840719,

TOW DURATION IN HOURS: COUNT=24
AVERAGE=1.3881944444, MINIMUM=0.0, MAXIMUM=3.25, SUM=33.3166666667,

HAIL WEIGHT IN METRIC TONS: COUNT=24
AVERAGE=13.3, MINIMUM=5.0, MAXIMUM=21.0, SUM=319.2,

TOTAL WEIGHT IN METRIC TONS: COUNT=7
AVERAGE=17.5142857142, MINIMUM=12.2, MAXIMUM=25.2, SUM=122.6,

NOTE: IF HAIL-WT > 0 THEN CATCH=HAIL-WT ELSE CATCH=TOTAL
CATCH IN METRIC TONS: COUNT=24
AVERAGE=13.3, MINIMUM=5.0, MAXIMUM=21.0, SUM=319.2,

CATCH PER HOUR IN MTONS/HR: COUNT=24
AVERAGE=11.8383231445, MINIMUM=2.60869565216, MAXIMUM=36.0,

SET LATITUDE IN DEGREES AND MINUTES: COUNT=24
AVERAGE=4134 MINIMUM=4100 MAXIMUM=4259

SET LONGITUDE IN DEGREES AND MINUTES: COUNT=24
AVERAGE=12428 MINIMUM=12418 MAXIMUM=12447

UP LATITUDE IN DEGREES AND MINUTES: COUNT=24
AVERAGE=4131 MINIMUM=4056 MAXIMUM=4301

UP LONGITUDE IN DEGREES AND MINUTES: COUNT=24
AVERAGE=12428 MINIMUM=12418 MAXIMUM=12448

DELIVERY LATITUDE IN DEGREES AND MINUTES: COUNT=0

DELIVERY LONGITUDE IN DEGREES AND MINUTES: COUNT=0

BOTTOM DEPTH IN FATHOMS: COUNT=23 AVG= 104.48 MIN=57 MAX=270

NET DEPTH IN FATHOMS: COUNT=20 AVG= 62.95 MIN=35 MAX=100

TEMPERATURE IN CENTIGRADE: COUNT=6 AVG= 8.00 MIN=8 MAX=8

ENGINE SPEED IN RPM: COUNT=21 AVG=1610.24 MIN=1510 MAX=1800

NUMBER OF CATCH CATEGORIES: COUNT=21 AVG= 1.05 MIN=1 MAX=2

TOW DURATION IN HOURS WHERE CATCH IS NULL: COUNT=0

SUM OF CATCH / SUM OF HOURS = 9.581 METRIC TONS PER HOUR

ADDENDUM

JVLOG Database Retrievals --- Proposed New Format (Information identical to that seen in preceding retrievals, but arranged into tables.

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3. Bering Sea Area 1 and Shumagin	22

PACFIN STATISTICAL REPORT OF THE JOINT VENTURE LOGBOOK DATABASE
13DEC85 16:18

SELECTION CRITERIA

TIME PERIOD: 840101 TO 841231

AREA: NE PACIFIC/BERING SEA (ALL AREAS); BOUNDARIES = 0000 N TO 9000 N;
00000 E TO 18000 E.

CATCH CATEGORIES: ALL SPECIES CATEGORIES COMBINED

NUMBER OF CATCHER VESSELS = 34

NUMBER OF PROCESSOR VESSELS = 77

NUMBER OF TOW RECORDS = 8635

ACTUAL TIME PERIOD OF FISHING: FIRST DATE = 840101; LAST DATE = 841231.

CATCH (IN METRIC TONS)

	SUM	AVERAGE	RANGE	COUNT
CATCH 1/	224753.6	27.92	0.1 TO 71.0	8051
HAIL WEIGHT 2/	74257.4	19.35	0.0 TO 65.7	3837
TOTAL WEIGHT 3/	183690.2	31.59	0.1 TO 88.5	5815

EFFORT

	SUM	AVERAGE	RANGE	COUNT
HOURS TRAWLED	26547.9	3.25	0.0 TO 12.0	8171
HOURS TRAWLED WHEN CATCH IS NULL	1236.9	2.56	0.0 TO 11.8	484

CATCH PER UNIT EFFORT

	AVERAGE	RANGE	COUNT
METRIC TONS/HOUR TRAWLED 4/	14.58	0.03 TO 2616.0	7569

SUM OF CATCH/SUM OF EFFORT = 8.466 MT/HR

LOCATION OF FISHING

	AVERAGE		LATITUDE		LONGITUDE		LAT COUNT
	LAT	LONG	MIN	MAX	MIN	MAX	
SET (SET BRAKE)	5517	15938	4100	6106	12400	17954	8085
UP (HAULBACK NET)	5517	15934	4056	5958	12405	17956	7718
DEL (DELIVER CODEND)	5622	16357	4326	5957	12404	17938	2433

DEPTH

	AVERAGE	RANGE	COUNT
BOTTOM DEPTH (FATHOMS)	79.41	12 TO 350	8106
NET DEPTH (FATHOMS)	72.13	8 TO 200	1860

	AVERAGE	RANGE	COUNT
TEMPERATURE (CENTIGRADE)	6.11	2 TO 9	376
ENGINE SPEED (RPM)	1662.67	670 TO 3800	2145
NUMBER OF CATCH CATEGORIES	2.89	1 TO 5	2460

- 1/ CATCH = HAIL WEIGHT. IF HAIL WEIGHT NOT GIVEN, THEN CATCH = TOTAL.
2/ ESTIMATED ROUND WEIGHT OF CODEND IN METRIC TONS. AN INPUT DATA ITEM.
3/ DATA FROM PROCESSOR. TOTAL WEIGHT OF ALL SPECIES AND GRADES OF FISH. AN INPUT DATA ITEM.
4/ ONLY FOR TOWS WHERE CATCH AND EFFORT ARE BOTH GIVEN.

PACFIN STATISTICAL REPORT OF THE JOINT VENTURE LOGBOOK DATABASE
31DEC85 14:18

SELECTION CRITERIA

TIME PERIOD: 840101 TO 841231

AREA: ALL ALASKAN AREAS;

BOUNDARIES = 5030 N TO 6500 N;
12500 E TO 18000 E;

CATCH CATEGORIES: ALL SPECIES CATEGORIES COMBINED

NUMBER OF CATCHER VESSELS = 31

NUMBER OF PROCESSOR VESSELS = 56

NUMBER OF TOW RECORDS = 7339

ACTUAL TIME PERIOD OF FISHING: FIRST DATE = 840101; LAST DATE = 841231.

CATCH (IN METRIC TONS)

	SUM	AVERAGE	RANGE	COUNT
CATCH 1/	205394.1	30.06	0.1 TO 71.0	6833
HAIL WEIGHT 2/	55804.8	20.87	0.0 TO 65.7	2674
TOTAL WEIGHT 3/	172591.0	33.77	0.1 TO 88.5	5111

EFFORT

	SUM	AVERAGE	RANGE	COUNT
HOURS TRAWLED	24191.1	3.45	0.0 TO 12.0	7003
HOURS TRAWLED WHEN CATCH IS NULL	1107.6	2.62	0.0 TO 11.8	423

CATCH PER UNIT EFFORT

	AVERAGE	RANGE	COUNT
METRIC TONS/HOUR TRAWLED 4/	15.12	0.03 TO 2616.0	6550

SUM OF CATCH/SUM OF EFFORT = 8.490 MT/HR

LOCATION OF FISHING

	AVERAGE		LATITUDE		LONGITUDE		LAT COUNT
	LAT	LONG	MIN	MAX	MIN	MAX	
SET (SET BRAKE)	5614	16307	5101	6106	13241	17954	7339
UP (HAULBACK NET)	5617	16310	5107	5958	13503	17956	6913
DEL (DELIVER CODEND)	5656	16600	5118	5957	12445	17938	2238

DEPTH

	AVERAGE	RANGE	COUNT
BOTTOM DEPTH (FATHOMS)	78.38	17 TO 230	7038
NET DEPTH (FATHOMS)	77.24	8 TO 200	1123

	AVERAGE	RANGE	COUNT
TEMPERATURE (CENTIGRADE)	5.38	2 TO 9	263
ENGINE SPEED (RPM)	1670.73	670 TO 3800	1518
NUMBER OF CATCH CATEGORIES	3.43	1 TO 5	1686

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- 1/ CATCH = HAIL WEIGHT. IF HAIL WT. NOT GIVEN, THEN CATCH = TOTAL WT.
2/ ESTIMATED ROUND WEIGHT OF CODEND IN METRIC TONS. AN INPUT DATA ITEM.
3/ DATA FROM PROCESSOR. TOTAL WEIGHT OF ALL SPECIES AND GRADES OF FISH. AN INPUT DATA ITEM.
4/ ONLY FOR TOWS WHERE CATCH AND EFFORT ARE BOTH GIVEN.

PACFIN STATISTICAL REPORT OF THE JOINT VENTURE LOGBOOK DATABASE
13DEC85 16:18

SELECTION CRITERIA

TIME PERIOD: 840101 TO 841231

AREA: BERING SEA AREA 1 AND SHUMAGIN

BOUNDARIES = 5000 N TO 6500 N;
15700 E TO 17000 E.

CATCH CATEGORIES: ALL SPECIES CATEGORIES COMBINED

NUMBER OF CATCHER VESSELS = 25

NUMBER OF PROCESSOR VESSELS = 29

NUMBER OF TOW RECORDS = 3857

ACTUAL TIME PERIOD OF FISHING: FIRST DATE = 840108; LAST DATE = 841127.

CATCH (IN METRIC TONS)

	SUM	AVERAGE	RANGE	COUNT
CATCH 1/	94442.9	25.46	0.1 TO 69.3	3709
HAIL WEIGHT 2/	25684.2	15.63	0.4 TO 52.7	1643
TOTAL WEIGHT 3/	81899.8	30.75	0.1 TO 70.5	2663

EFFORT

	SUM	AVERAGE	RANGE	COUNT
HOURS TRAWLED	12913.4	3.48	0.0 TO 12.0	3706
HOURS TRAWLED WHEN CATCH IS NULL	384.9	3.44	0.0 TO 11.8	112

CATCH PER UNIT EFFORT

	AVERAGE	RANGE	COUNT
METRIC TONS/HOUR TRAWLED 4/	11.24	0.03 TO 492.0	3857

SUM OF CATCH/SUM OF EFFORT = 7.314 MT/HR

LOCATION OF FISHING

	AVERAGE		LATITUDE		LONGITUDE		LAT COUNT
	LAT	LONG	MIN	MAX	MIN	MAX	
SET (SET BRAKE)	5547	16318	5130	6106	15702	16956	3857
UP (HAULBACK NET)	5547	16319	5209	5957	15508	16958	3663
DEL (DELIVER CODEND)	5515	16449	5221	5806	15843	16957	1001

DEPTH

	AVERAGE	RANGE	COUNT
BOTTOM DEPTH (FATHOMS)	55.72	17 TO 206	3804
NET DEPTH (FATHOMS)	57.47	8 TO 200	415

	AVERAGE	RANGE	COUNT
TEMPERATURE (CENTIGRADE)	5.63	2 TO 9	93
ENGINE SPEED (RPM)	1821.40	1025 TO 3400	988
NUMBER OF CATCH CATEGORIES	3.78	1 TO 5	1069

- 1/ CATCH = HAIL WEIGHT. IF HAIL WEIGHT NOT GIVEN, THEN CATCH = TOTAL.
2/ ESTIMATED ROUND WEIGHT OF CODEND IN METRIC TONS. AN INPUT DATA ITEM.
3/ DATA FROM PROCESSOR. TOTAL WEIGHT OF ALL SPECIES AND GRADES OF FISH. AN INPUT DATA ITEM.
4/ ONLY FOR TOWS WHERE CATCH AND EFFORT ARE BOTH GIVEN.