Instructions for Observers in the 1993 WOC Whiting Fishery

March 16, 1993

With the pollock fishery closings in the Gulf of Alaska and Bering Sea, many surimi processing vessels will enter the coastal fishery off Washington, Oregon and California to target on hake. If you are coming into or through Seattle, Dutch Harbor or Kodiak on your way to the coastal fishery, please stop in at the observer program office for further information. If you cannot come in, call, as it is possible that there have been updates on the following.

Coverage: Catcher/processor vessels and motherships 125 feet or longer are requested to have 100% observer coverage in the Washington, Oregon and california (WOC) groundfish fishery. The same protection provided to the observers in Alaskan waters will apply to the coastal fishery as well.

Regulations: There are different vessel record-keeping and reporting requirements in the WOC than in Alaska. The vessel should switch to WOC logbook forms when commencing fishing in the coastal zone. An example of a fishing logbook page has been provided for you in this packet. For the observer's data, the management areas for WOC are given in this packet, along with the species report groups to be used in weekly catch messages.

The regulations for fishing in the WOC are presently being finalized. Though we cannot at this time provide copies of the fishing regulations, you should be aware that regulations are expected to be put into affect by the April 15th opening. These should include prohibitions of fishing in the Klamath and Columbia River salmon conservation zones; no fishing inside of 100 fathoms between 43° - 42° latitude in the Eureka area; no at-sea processing south of 42°, and an allocation of the hake resource between industry sectors. (The regulations implementing observer coverage and reporting requirements are also pending.)

<u>The report week for vessels and for observers is 0001 hours Wednesday through 0000 hours Tuesday, local time</u> (Pacific Standard or, in April, Pacific Daylight Savings time). If it is predicted that this will be a short fishery, the observer may be requested to send daily catch messages (on the form provided in this packet). Note that these **dailies get sent to the Observer Program offices in Seattle, not to Juneau** and that ship position, date and time of the daily message transmission is required. If you are on a vessel with the observer COM program, send the information requested on the daily catch message form as a text message. If the Regional Office requires only weekly catch messages, use yhe CMA and CMB in your manual. They must be sent to the Observer Program in Seattle no later than noon on Thursday of each week. This is highest priority!

As instructed

The vessel should send its catch reports to the NMFS Northwest Regional Office, not the Observer program. Ship captains and vessel owners should request copies of the regulations from and address questions to:

NMFS Northwest Regional Office
7600 Sand Point Way NE
BIN C15700, Bldg. 1
Seattle WA 98115-0070

Telephone: (206) 526-6140
Fax Number: (206) 526-6736
Telex: 9104442786

Prohibited species: All salmonids, Pacific halibut (not California halibut), and Dungeness crab are prohibited species in the EEZ (from 3 miles off the coast to 200 nautical miles offshore) of Washington and Oregon. Herring are not prohibited species in the WOC. List herring now under the "NON" species report group for catch messages. "Species identified as prohibited must be returned to the sea as soon as practicable with a minimum of injury when caught and brought aboard, after allowing for sampling by an observer, if any. Exceptions may be made for the recovery of tagged fish". (Excerpt is from Amendment 4 to the to the Pacific Coast Groundfish Plan.)

Start-Stop Reporting: This information is to be included in your weekly report, just above the "Weekly Message or Resubmission of Message" area on the CM-A. Write the word "Start:" and after it record the date when the vessel begins fishing or receiving fish within the WOC region. This date will change if the vessel temporarily leaves the WOC region (such as to make a port call) and then comes in again to fish. Whenever your vessel leaves the WOC region (temporarily or long-term), substitute the word "Stop:" and record the date your vessel left the grounds.

Observer Sampling: Pacific whiting (hake) are managed <u>entirely</u> on observer data since vessel recordkeeping is voluntary. That is why we remind you that the submission of accurate and timely catch messages is very important. Next in priority, **it is very important that you attempt to whole or partial haul sample for at least the prohibited species.** On almost every catcher/processor fishing the WOC region, observers have successfully whole or partial haul sampled. If you find that you have to basket sample occasionally for species composition due to amounts of bycatch or time constraints, we would like you to continue sampling a partial or whole haul for prohibited species. It is that important. However, if you discover that basket sampling is the <u>only</u> method feasible on your vessel, contact us immediately. We may be able to work something out with the vessel to create a system whereby you <u>can</u> whole or partial haul sample, at least for the prohibited species.

<u>OTCs:</u> It is very important that the haul weight estimates be as accurate as possible and that they be observer verified. Therefore the number one preference for OTC is haul weight obtained from bin or codend volumes, times a density. For a better density, try to locate a large tote or holding bin that

you can fill with baskets of unsorted, weighed catch. The bigger the container and the greater the weight of fish in the volume, the better the density figure. We don't prefer the use of production data in the OTC estimates as we have no reliable product recovery rates for hake surimi off the coast. Collect 2US information on all hauls taken, make haul estimates on as many hauls as possible (using an adjustment factor calculation for unmeasured hauls), and monitor tows for take (including harassment) of marine mammals as usual. For mothership observers: in the 2US column for ADF&G number of the catcher vessel making the delivery, enter the Alaska ADF&G number if the ship has one, or the Coast Guard number or, as a last resort, the state I.D. number of the delivering vessel.

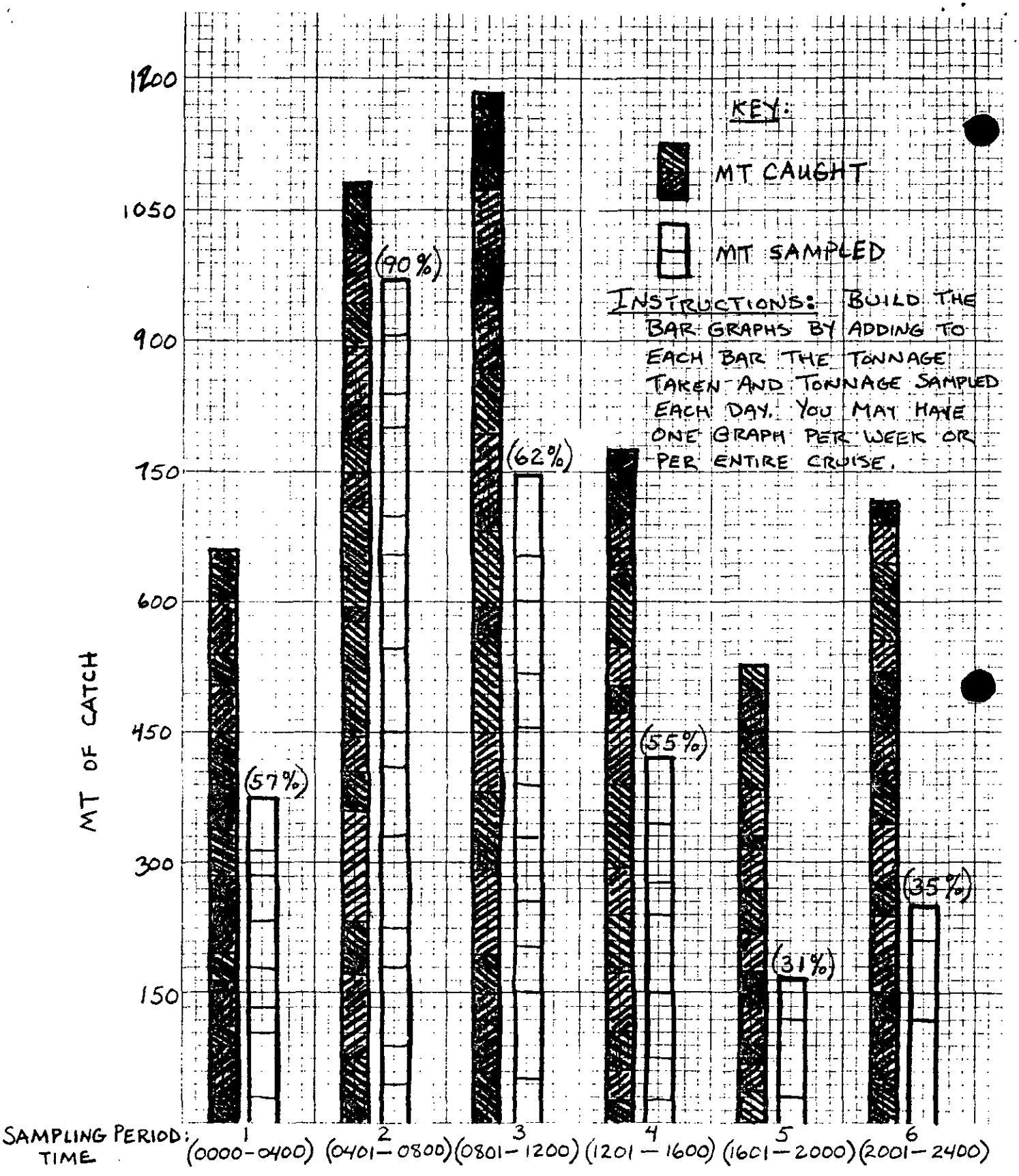
Cruise Number and Page Numbering: You will be getting a **new cruise number** for the WOC fishery. Start all of your forms over with **a new page one for each form type.** When the hake fishery has ended, you will be speed-debriefed in Seattle before continuing your contract on that vessel or any other. Your hake data will be collected then.

Random Sample Table: Discontinue use of the Random Sample and Break Tables. Instead, on a graph paper page of your logbook, create a bar graph tracking your sampling along with the tonnage taken per time as instructed on the example provided in this packet. Sample as many tows as you can, with your time priority going to accurate and on-time catch messages.

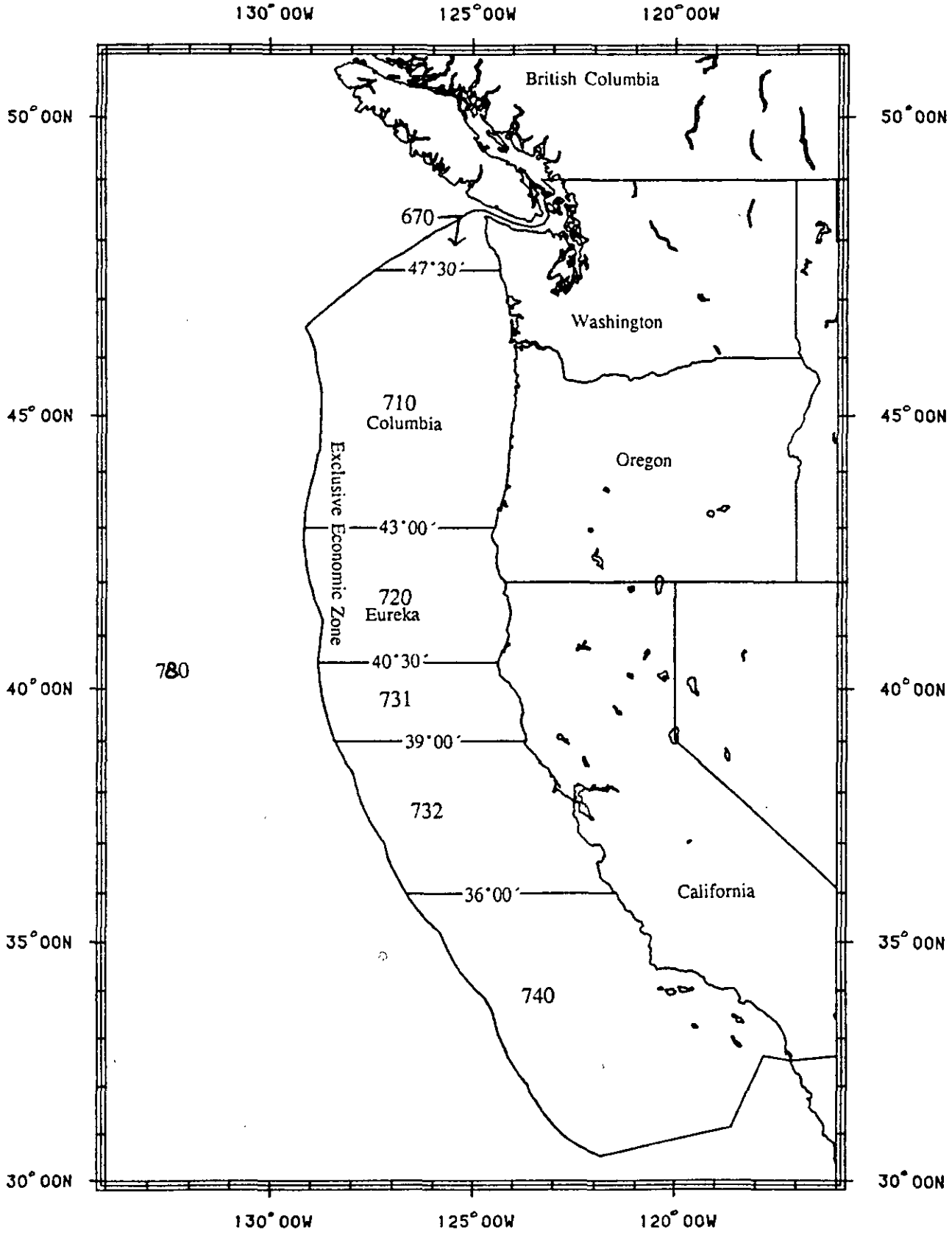
Recording Prohibs: To be consistent with the observer program data base from Alaska, on Form 3US you must continue to record number and weight categories for king crab, tanner crab, halibut and salmon even though it's very unlikely you would ever see king or tanner crab in the WOC fishery. On 3US treat Dungeness crab as you do any other bycatch species, not as one of the prohibited groups. On Weekly Catch Message Form B (CMB) though, replace the bairdi tanner crab category with a category for Dungeness crab. Also on CMB, report the appropriate sample weights of king crab, herring and other tanner and then fill the numbers and weights columns with zeros. Enter all data for the Pacific halibut and salmon found in the sample. even if you get herring!

Salmon: Be careful with salmon identification! Please collect a total of twenty scale samples per species, if available, from coastal salmon, in addition to any samples taken from Alaskan salmon. In addition, take scale samples of any salmon you are unsure of so that we can ascertain the species during debriefing. **Check as many salmon as you can for tagged fish.** Special project instructions for hake and rockfish are also in this packet.

PRRs: If there is any testing of PRRs on board, record how many tests were done, what the procedure was, and the results on the form 8.



GRAPH USED TO INSURE THAT HAULS FROM VARIOUS TIME PERIODS WERE SAMPLED PROPORTIONALLY ACCORDING TO TONNAGE CAUGHT.



WASHINGTON, OREGON, AND CALIFORNIA REPORT AREAS

Washington-Oregon-California Hake Fishery (Areas 670 and 710 -780)

Species Group	Report Group	Abbreviation	
Pacific hake	Pacific hake	HAKE	280
Pacific cod	Pacific cod	PCOD	110
Lingcod	Lingcod	LING	130
Jack mackerel	Jack mackerel	JMACK	290
Pacific mackerel	Pacific mackerel	PMACK	295
Sablefish	Sablefish	SABLE	710
Sardine	Sardine	SARD	285
Arrowtooth flounder	Arrowtooth flounder	ARROW	121
Dover sole	Dover sole	DOVER	124
English sole	English sole	ENGLS	128
Petrale sole	Petrale sole	PETRL	131
Rex sole	Rex sole	REX	125
Rock sole	Rock sole	RSOLE	123
Starry Flounder	Starry flounder	STAR	129
Other flatfish (except halibut)		OFLAT	120
Bocaccio	Bocaccio	BOCCI	137
Canary rockfish	Canary Rockfish	CANRY	146
Chilipepper rockfish	Chilipepper rockfish	CHILI	176
Pacific ocean perch	Pacific ocean perch	POP	141
Shortbelly rockfish	Shortbelly rockfish	SBLY	177
Longspine thornyhead Shortspine thornyhead	Thornyhead Rockfish	THRN	143
Widow rockfish	Widow rockfish	WIDOW	156
Yellowtail rockfish	Yellowtail rockfish	YTAIL	155
Other rockfish	Other rockfish	OROCK	139
Other groundfish: Sharks, skates, kelp greenling, cabezon, ratfish, morids, grenadiers		OTHGF	100
Non-allocated species: miscellaneous fish, and invertebrates (other than prohibited invertebrate species)		NON	999
Prohibited spp. (halibut, salmon, and Dungeness crab)		PROHIB	900

DAILY FISHING AND CUM[illegible]ATIVE CATCH LOGBOOK

O[illegible] Exp. Date___

PAGE	YEAR-MNTH-DAY	VESSEL NAME	WOC PERMIT NUMBER	AREA	GEAR	OBSERVER NAME	NUMBER CREW	OPERATOR'S SIGNATURE
2	93 04 16	COASTAL BREEZE	25873 NMFS	7 1 0	NPT	Felix Observer	Fishing: 8 Processing: 21	

Estimated catch weight to the nearest 0.1 mt

EFFORT LOG

HAUL/ SET	BEGIN TIME	BEGINNING POSITION LATITUDE	BEGINNING POSITION LONGITUDE	SEA DEPTH	TRAWL DEPTH	ENDING TIME	ENDING POSITION LATITUDE	ENDING POSITION LONGITUDE	TOTAL TIME	#HOOKS or POTS	ESTIMATED CATCH WT.	PROCESSOR NAME
3	0900	4348	12449	220	160	1400	4347	12451	300		65.0 MT	
4	1530	4346	12453	220	180	1845	4347	12455	195		72.0	
5	1955	4351	12453	220	200	2330	4349	12454	215		90.0	

CATCHER OR CATCHER/ PROCESSOR LOGS

Round weight to the nearest 0.01 mt

CATCH LOG

SPECIES CODE	280	156	143	100	999	139
DISCARDED WEIGHT	0.0	4.7	2.3	.7	1.4	.2
BALANCE FORWARD	0.0	10.5	1.2	.2	.9	.1
CUMULATIVE TOTAL WT	0.0	15.2	3.5	.9	2.3	.3
RETAINED WEIGHT	207.7	0.0	0.0	0.0	0.0	0.0
BALANCE FORWARD	200.2	0.0	0.0	0.0	0.0	0.0
CUMULATIVE TOTAL WT	407.9	0.0	0.0	0.0	0.0	0.0

PROHIBITED SPECIES

	Salmon	Halibut	Dung-Crab
Number Caught	3	0	0
Balance Forward	0	0	0
Cumulative Total No	3	0	0

Product weight to the nearest 0.01 mt

PRODUCTION LOG

SPECIES CODE	280
PRODUCT TYPE	30
AVERAGE PRR	.16
DAILY TOTAL	33.2
BALANCE FORWARD	32.0
CUMULATIVE TOTAL	65.2

DISCARD WEIGHTS ON NON-TARGET SPECIES PROBABLY OBTAINED FROM THE OBSERVER.

HAKE ROUND WEIGHT PROBABLY A BACK CALCULATION FROM PRODUCTION PRR OF .16 FROM VESSEL'S OWN TESTS.

DAILY FISH RECEIVED AND CUMULATIVE PRODUCTION LOGBOOK

OMB#___ Exp. Da

PAGE	YEAR-MNTH-DAY	PROCESSOR'S NAME	WOC PERMIT NUMBER	AREA	GEAR	OBSERVER NAME	# CREW	OPERATOR'S SIGNATURE
	2 93 04 16	EAGLE POINT	AK-93-3141	710	NPT	JOANN MARTIN	31	

Estimated catch weight to nearest 0.1 mt

DELIVERY LOG

HAUL	HARVESTER NAME	WOC PERMIT NUMBER	LOCAL TIME	LATITUDE	LONGITUDE	ESTIMATED RECEIPT WT.	COMMENTS
6	COASTAL WIND	AK-93-2489	0740	4355	12450	70.0	
7	NORTHERN SPIRIT	4719	0950	4355	12458	85.0	
8	COASTAL WIND	2489	1422	4351	12455	65.0	
9	COASTAL WIND	2489	2245	4348	12456	55.0	

MOTHERSHIP LOGS
- This example using NMFS Permit number rather than WOC Permit #.
- PRRs not established for hake surimi. Vessel may test own or use pollock prr.

Round weight to the nearest 0.01 mt

RECEIPT LOG

SPECIES CODE	280	100	999	156	139				
DISCARDED WEIGHT	0.0	1.9	3.0	3.1	.7				
BALANCE FORWARD	0.0	.8	1.1	4.2	.2				
CUMULATIVE TOTAL WT	0.0	2.7	4.1	7.3	.9				
RETAINED WEIGHT	261.4	0.0	0.0	0.0	0.0				
BALANCE FORWARD	208.9	0.0	0.0	0.0	0.0				
CUMULATIVE TOTAL WT	470.3	0.0	0.0	0.0	0.0				

PROHIBITED SPECIES

	Salmon	Halibut	Dung. Crab
Number Caught	21	0	e
Balance Forward	25	0	0
Cumulative Total No.	46	0	c

Product weight to the nearest 0.01 mt

PRODUCTION LOG

SPECIES CODE	280									
PRODUCT TYPE	30									
AVERAGE PRR	.15									
DAILY TOTAL	39.2									
BALANCE FORWARD	31.3									
CUMULATIVE TOTAL	70.5									

Instructions for Daily Catch Messages in the Pacific Whiting Fishery

For daily catch messages in the Pacific whiting fishery, you are being asked to give the following information: the total catch for the day, the total catch (OTCs) sampled using basket versus whole or partial haul sampling, the sum of the species composition sample weights (divided between those basket sampled and those whole or partial haul sampled), and the amount of whiting found in these samples. The Northwest Regional Office uses these pieces of information to extrapolate how much whiting has been caught each day. In addition to the sampling data on the daily catch message form, you will need the NMFS permit number of your observed vessel, the date the vessel started or stopped fishing or receiving fish in the WOC whiting fishery, and the date, time and location of your vessel when you are transmitting the daily catch message.

On the back of this page is a filled-in example of a daily catch message form. For each day, list whether your vessel was acting as a catcher/processor (eg. C/P) or as a mothership (eg. M). If your vessel acts as a catcher/processor and also receives codends from delivering vessels within the same day, separate those data on two lines.

On this example form, the data for 4/20 demonstrates the use of two sample methods during one day: the first line has the date (eg. 4/20), an indication of whether the vessel received fish) or caught the fish itself (eg. M or C/P), and the sum of <u>all</u> the Official Total Catch Estimates (OTCs) for the day (eg. 250.00 mt). Then the line continues with the data for all hauls which were partial haul sampled: the method of species composition sampling (eg. P), the the sum of the OTCs for the hauls that were partial haul sampled (eg. 100.00 mt), the total weight of the samples done by partial haul sampling (eg. 50000.00 kg), and the total weight of whiting in these samples (eg. 49000.00 kg). The second line shows the second method of species sampling for that day (eg. B), the sum of the OTCs for the hauls that were basket sampled for species composition (eg. 50.00 mt), the total weight of all basket samples (eg. 800.00 kg), and the total weight of whiting in the samples (eg. 650.00 kg).

Whole and partial haul samples can be combined (eg. data for 4/21), since both should be relatively "clean" and similar in composition. If only one sampling method was used for the entire day, then only one line of data is needed. For 4/23, the ship acted as a mothership and a catcher/processor within the same day. The data are listed separately.

As in the example, list each day's data on the same page as the previous catch data, but skip a line between dates. You can FAX the same page each day until you run out of room on the form. For vessels that use the observer COM program for catch messages, you will have to list all of the data on the form in a text message. **Don't forget to include your name and vessel name on every COM text message!**

(1) OBSERVER NAME FELIX OBSERVER

(2) VESSEL NAME COASTAL BREEZE

(3) NMFS PERMIT # 25873

(4) TARGET SPECIES HAKE

(5) (START) / STOP DATE 04/15/93

CMD - DAILY CATCH MESSAGE FORM for FAX communication

Send to: NMFS Groundfish Observer Program
Seattle, Washington
FAX: 206-526-4066

Vessel's FAX 491 3443

(6) Date Month	(6) Date Day	(7) Mothership or Catcher/Processor	(8) Total daily weight in mt.	(9) Sampling method: W/P or B	(10) Total of the OTC's for sampled hauls by sample type in mt.	(11) Total of species composition sample weights in kg.	(12) Total weight of hake in species composition samples in kg.	Please record the date, time, and position for this daily message (13) Month	(13) Day	(14) Time	(15) Latitude	(15) E or W	(15) Longitude
04	20	C/P	250.00	P	100.00	50000.00	49000.00	04	20	2250	4620	W	12501
				B	50.00	800.00	650.00					W	
												W	
04	21	C/P	200.00	W/P	170.00	110000.00	109998.1	04	22	0540	4631	W	12520
												W	
04	22	C/P	210.50	W	191.72	19172.00	19031.7	04	23	0135	4551	W	12601
												W	
04	23	C/P	110.50	W/P	105.13	9233.4	8943.1	04	23	2340	4550	W	12620
04	23	M	120.45	W/P	101.52	8579.7	7522.8	04	23	2340	4550	W	12620
												W	
												W	
												W	

revised 3

SPECIAL PROJECT FOR HAKE VESSEL OBSERVERS:

The NMFS status of hake stocks scientists would like hake otoliths, maturity determination on the otolith-sampled hake, length frequencies of hake and length frequencies of widow and yellowtail rockfish.

1. Hake otoliths and maturity: Using the manual instructions for otolith collection, a length-stratified sample of 100 hake otolith pairs should be collected. Spread your collection over the entire time and geographic extent of the fishery. Each hake sampled for otoliths should also have the maturity of the gonads determined and all of the data entered on the 9US form. Maturity information follows.

2. Hake length frequencies: Follow manual instructions but decrease the number to 100/day.

3. Rockfish length frequencies: Collect **sexed** length data on approximately 250 widow rockfish and 250 yellowtail rockfish. Specimens should be randomly selected, and spread throughout the season and geographic area. About 20 fish of each species per day should reach the goal. Unsexed lengths of widows and yellowtails cannot be used.

4. Whiting product recovery rates: If the vessel tests for PRR, document on the form 8 how they were performed and what the results were. If the vessel has periods when the factory is empty it may be possible for you to calculate your own PRR based on how much hake went into the factory between the empty periods and how much surimi came out. Describe in your log.

TIPS FOR DETERMINING THE MATURITY STAGE OF PACIFIC WHITING

Maturity stages are based on three separate lines of evidence: color of the gonads, size of the gonads, and, for females, development of eggs. Familiarize yourself with each of these three characteristics of ovarian development.

It is not unusual for even skilled researchers to have trouble deciding which maturity stage to use. If you experience difficulty, try not to feel too frustrated. The stages <u>are</u> arbitrary. It is a good idea to spend some time looking at gonads at different levels of development before you begin recording maturity stages.

Determining maturity stage is easier if you have a general idea of what to expect. Whiting typically spawn in late winter, so most of the whiting in the catch will either be immature (stage 1), or will have spawned several months earlier and have recovered and will therefore be classified as mature (stage 2). You may see a few fish in spawning condition (stage 3), or in post-spawning condition (stage 4), but they should not be common.

Previously collected data indicates that whiting are 50% mature at approximately 37 cm. There may be some annual variation in length at maturity, which is why we are asking you to collect the information on maturity.

TABLE OF MATURITY CODES FOR PACIFIC WHITING (MERLUCCIUS PRODUCTUS).

MALES

Stage	Code	Characteristics
Immature	(1)	- Testes thread-like, translucent, may be difficult to locate. Fish apparently has not spawned for the first time.
Mature	(2)	- Testes ribbon-like to large and highly convoluted. Testes white, opaque. Sperm cannot be extruded.
Spawning	(3)	- Testes almost fill body cavity. Sperm extrudes from vent with slight pressure.
Post-spawning	(4)	- Testes large but flaccid, watery, and bloodshot.

FEMALES

Stage	Code	Characteristics
Immature	(1)	- Ovaries small, light pink and semi-transparent. No eggs visible. Fish apparently has not spawned for the first time.
Mature	(2)	- Ovaries yellow in color, filling up to 1/2 the volume of the body cavity. Ovaries contain distinctly visible opaque eggs. Red blood vessels pronounced on ovarian wall. Mature ovaries that have recovered from spawning may have a moderately firm texture with white sheen on the surface.
Spawning	(3)	- Ovaries almost fill body cavity. Translucent eggs flow from vent with slight pressure. Eggs loose in translucent ovaries.
Post-spawning	(4)	- Ovaries bloodshot, purple in color and flaccid. Ovaries fill about 1/3 body cavity. Some translucent eggs may be visible.

(1) OBSERVER NAME_____

(2) VESSEL NAME _____

(3) NMFS PERMIT #_____

(4) TARGET SPECIES HAKE

(5) START / STOP DATE _____

CMD - DAILY CATCH MESSAGE FORM for FAX communication

Send to: NMFS Groundfish Observer Program
Seattle, Washington
FAX: 206-526-4066

Vessel's FAX_____

(6) Date			(7)	(8)	(9)	(10)	(11)	(12)	Please record the date, time, and position for this daily message					
									(13)		(14)	(15)		
Month		Day	Mothership or Catcher/Processor	Total daily weight in mt.	Sampling method: W/P or B	Total of the OTC's for sampled hauls by sample type in mt.	Total of species composition sample weights in kg.	Total weight of hake in species composition samples in kg.	Month	Day	Time	Latitude	E or W	Longitude
													W	
													W	
													W	
													W	
													W	
													W	
													W	
													W	
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													W	

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(1) OBSERVER NAME_____

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								(13)		(14)	(15)		
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												W	
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(1) OBSERVER NAME_____

(2) VESSEL NAME _____

(3) NMFS PERMIT #_____

(4) TARGET SPECIES HAKE

(5) START / STOP DATE _____

CMD - DAILY CATCH MESSAGE FORM for FAX communication

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Seattle, Washington
FAX: 206-526-4066

Vessel's FAX_____

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												W	
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												W	

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(1) OBSERVER NAME_____

(2) VESSEL NAME _____

(3) NMFS PERMIT #_____

(4) TARGET SPECIES HAKE

(5) START / STOP DATE _____

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Vessel's FAX_____

(6) Date				(7)	(8)	(9)	(10)	(11)	(12)	Please record the date, time, and position for this daily message						
										(13)				(14)	(15)	
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																W
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																W

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(1) OBSERVER NAME_____

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Vessel's FAX_____

(6) Date				(7)	(8)	(9)	(10)	(11)	(12)	Please record the date, time, and position for this daily message						
										(13)		(14)	(15)			
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														W	
														W	
														W	
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(1) OBSERVER NAME_____

(2) VESSEL NAME _____

(3) NMFS PERMIT #_____

(4) TARGET SPECIES HAKE

(5) START / STOP DATE _____

CMD - DAILY CATCH MESSAGE FORM for FAX communication

Send to: NMFS Groundfish Observer Program
Seattle, Washington
FAX: 206-526-4066

Vessel's FAX_____

(6) Date		(7)	(8)	(9)	(10)	(11)	(12)	Please record the date, time, and position for this daily message					
								(13)		(14)	(15)		
Month	Day	Mothership or Catcher/Processor	Total daily weight in mt.	Sampling method: W/P or B	Total of the OTC's for sampled hauls by sample type in mt.	Total of species composition *sample weights* in kg.	Total weight of hake in species *composition* samples in kg.	Month	Day	Time	Latitude	E or W	Longitude
												W	
												W	
												W	
												W	
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