

A-SHOP Observer Logbook

Name _____ Badge # _____

Cruise # _____ Contractor _____

This logbook is to be used to record all details of your deployment. Take a few minutes to look at each section to familiarize yourself with the format. Each section has instructions on what information to include and how to record it. Please refer to your sampling manual for more detailed instructions, such as documenting a suspected violation.

In order to meet the expectations of the Observer Program for a successful deployment, the following required sections of the logbook must be fully completed:

- *Vessel safety* checklist for each vessel
- Documentation of all *sampling techniques* and changes or difficulties with those techniques
- All suspected *violations*
- Any incidents of vessel interaction with *seabirds or marine mammals*
- All total *catch calculations*
- An entry in the *Daily Notes* section for each day of your deployment, including all non-fishing days and days between vessel assignments
- *Sample station inspection* checklist
- *MCP scale daily test* for each day the MCP scale is used

Always date your entries so that the chronology of events can be traced in each section.

Your logbook is a valuable document. Please make the effort to maintain it, and keep it in a safe place.

All TEXT entries must be made in ink! Calculations may be made in pencil.

Complete the following information in chronological order for each of the vessels you are assigned to during this deployment:

1. Vessel Name and Vessel Permit: _____

Captain Name: _____ From: _____ To: _____

Captain Name: _____ From: _____ To: _____

Captain Name: _____ From: _____ To: _____

Observer Name: _____ Lead _____ Second _____

Cruise #: _____ From: _____ To: _____

Observer Name: _____ Lead _____ Second _____

Cruise #: _____ From: _____ To: _____

Observer Name: _____ Lead _____ Second _____

Cruise #: _____ From: _____ To: _____

2. Vessel Name and Vessel Permit: _____

Captain Name: _____ From: _____ To: _____

Captain Name: _____ From: _____ To: _____

Captain Name: _____ From: _____ To: _____

-
Observer Name: _____ Lead _____ Second _____
Cruise #: _____ From: _____ To: _____
Observer Name: _____ Lead _____ Second _____
Cruise #: _____ From: _____ To: _____
Observer Name: _____ Lead _____ Second _____
Cruise #: _____ From: _____ To: _____

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Paperwork Reduction Act Statement for the At-Sea Hake Observer Program

Information collected through the observer program is used to: (1) monitor catch and bycatch; (2) understand the population status and trends of fish stocks and protected species, as well as the interactions between them; (3) determine the quantity and distribution of net benefits derived from living marine resources; (4) predict the biological, ecological, and economic impacts of existing management actions and proposed management options; and (5) ensure that the observer programs can safely and efficiently collect the information required for the previous four uses. In particular, these biological and economic data collection programs contribute to legally mandated analyses required under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (RFA), Executive Order 12866 (EO 12866), and other applicable law.

Most of the information collected by observers is obtained through “direct observation by an employee or agent of the sponsoring agency or through non-standardized oral communication in connection with such direct observations”. Under the Paperwork Reduction Act (PRA) regulations at 5 C.F.R. 1320.3(h)(3), facts or opinions obtained through such observations and communications are not considered to be “information” subject to the PRA. The public reporting burden for responding to the questions that observers ask and that are subject to the PRA is estimated to average 20 minutes per trip, including the time for hearing and understanding the questions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: At-sea Hake Observer Program, 2725 Montlake Blvd. East, Seattle, WA 98112.

Providing information related to observer and vessel safety is mandatory under regulations at 50 C.F.R. 600.746. However, all other requested information is voluntary. Although you are under no legal obligation to answer non-safety related observer questions, we would appreciate your support as it ensures observer data can be used for its intended purpose.

The information collected will be kept confidential as required under Section 402(b) of the MSA (18 U.S.C. 1881a(b)) and regulations at 50 C.F.R. Part 600, Subpart E. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

OMB Control No. 0648-0593 Expires 12/31/2021

A-SHOP Gear Sheet

A-SHOP gear is issued PER VESSEL so each pair of observers needs to have one full set of A-SHOP gear

Name: _____

Date: _____

Lead Cruise #: _____

Second Cruise #: _____

Place a check in "Quantity" column once # is verified. To change # cross out and write in the correct #.					
Books	Quantity	# at Check-in	Hake Gear Bag	Quantity	# at Check-in
Sampling Manual	1		CWT salmon snout barcoded bags	25	
Logbook	2		Genetics kit (scissors + forceps + sponge)	1	
Wet Manual	1		Salmon genetics barcoded envelopes	250	
A-SHOP Rockfish Guide	1		White genetics envelopes	100	
A-SHOP Species ID Guide	1		Spiny dogfish barcoded bags	50	
NPOP Manual (from AK Program)	1		Specimen collection labels (pack)	1	
<i>Books Packed in Baskets</i>			Sharpie / Red pencil	1 each	
Marine Mammal Guide	1		Rubber bands (pack)	1	
Beached Bird Guide	1		Bags - various sizes	lots	
Pacific Coast Fishes / Eschmeyer Guide	1		Scalpel handle / pack of blades	1	
Halibut Viability - Trawl	1		Knife	1	
			Large knife + sheath	1	
			Large manila envelope for genetics	2	
Forms	Quantity	# at Check-in	Other	A-SHOP #	
<i>packed in A-SHOP accordion folder</i>					
Trip	3		Salmon Wand		
VHF/OHF	20		Digital Camera		
Deck Forms	300				
Salmon Sampling Deck Form	50				
Miscellaneous & Salmon Species ID	50				
Rockfish Species ID	40				
Flatfish Species ID	15				
Skate Species ID	6				
Seabird Species ID	10				
Marine Mammal Interaction and Specimen	5				
Marine Mammal Sighting	10				
Bird Interaction, Activity, and Species	5				
Bird Specimen and Tag	2				

As an agent of your contractor, you are assuming responsibility for the satisfactory return of equipment issued to you by the A-SHOP. All items need to be accounted for and cleaned prior to returning them to the A-SHOP.

Sampling Gear Checked Out from AK Program

Name: _____

Date: _____

Cruise #: _____

Employer: _____

Gear Check-out Location: Seattle

Immersion Suit / PFD					
	Serial #	Circle size			
Immersion Suit		Imperial: Intermediate Universal Jumbo Stearns: Small Universal Jumbo			
PLB					
PFD		SM / MD	L / XL	XXL / XXXL	
Coveralls (Optional) - Brand / Size _____					

Place a check in "Quantity" column once # is verified. To change # cross out and write in the correct #. Optional items, record the # checked out. Leave "# at Check-in" blank until gear check-in.

Basket Items	Quantity	# at Check-in	Pencil Pouch	Quantity	# at Check-in
Basket	3		Flash Drive	2	
Basket Lid	1		Paper Clips (pack)	1	
Calculator	1		Pen	3	
Clipboard	2		Pencil - Mechanical	1	
Hardhat (Optional)	1		Pencil - No. 2	3	
Knife	1		Pencil - No. 3B Green/Blue	3	
Knife Sheath	1		Pencil Leads (pack)	1	
Line - 20 ft length (Optional)	1		Pencil Sharpener	1	
Measuring Board (Optional)	1		Permanent Marker	1	
Length Measuring Strip	2		Sample Box		
Measuring Tape	1		Cotton Balls (pack)	1	
Sponge	1		Earplugs (pair)	2	
Strobe Light	1		Forceps	2	
Vials - Bag of 100	3		Marine Mammal Sample Kit	1	
Vial Block	1		Rubber Bands (pack)	1	
Optional Equipment			Scalpel Handle	1	
Ear Muff			Scalpel Blades (pack)	1	
Flashlight			Zip Ties (bundle)	1	
Gaff					
Safety Glasses					
Tie Down Strap					
Other (Specify)					

Changes To Gear During Deployment (Losses, Transfers, Additions, etc.)

Name of Observer/ Donor	Date	Action: Loss, Found, Transfer, Checked out, Checked In	Gear Item	Quantity



Disembark Checklist

Frozen

- Marine mammal specimens*
- Seabird carcasses*
- Whole salmon
- Whole fish
- Salmon snouts
- Spiny dogfish spines
- Whole squid

Biospecimens

- Otoliths
- Salmon genetics
- Rockfish genetics
- Hake genetics

Data

- Notification of estimated time of arrival in port sent to contractor and in-season advisor
- Transmit final non-fishing day and Trip End
- Archive ATLAS data
- Copies of vessel logbook pages (*hake vessels don't use ELBs - make copies of logbook pages the vessel uses to records haul data*)
- Copies of flow scale haul end weight print-outs
- Completed data forms
- Completed species ID forms

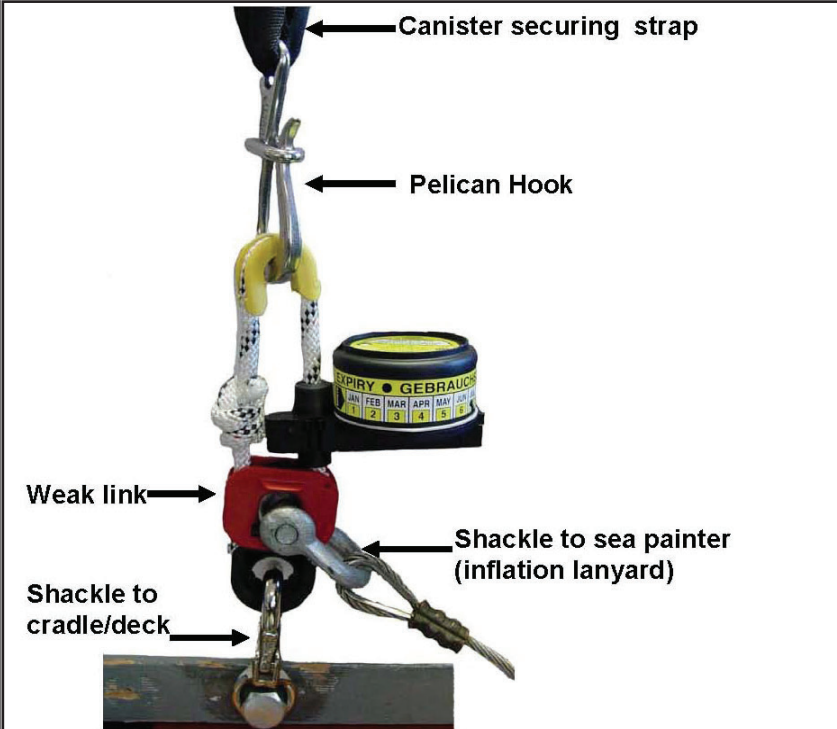
Gear

- Salmon wand
- Camera
- PLB
- Immersion suit
- Refer to gear sheets in front of logbook

Vessel Safety Checklist

Vessel Name: _____ Vessel permit: _____

Ensure the USCG Commercial Fishing Vessel Safety decal is not expired. The expiration date is at the end of the month displayed.



Is the decal valid? **Y N**

Is hydrostatic release installed correctly? **Y N**

Survival Craft: p. 10

Number of: _____
 Total capacity: _____
 # of crew & observers on board _____

Sufficient capacity? **Y N**

Survival crafts stowed correctly? **Y N**

Float free or otherwise in accordance with the Federal Requirements for Commercial Fishing Industry Vessels (p. 13)

Service Due decal exp. date: ____/____
 (expires at end of month displayed-inflatables only)

Hydrostatic release exp. date: ____/____
 (expires at end of month displayed)

Your survival craft assignment: _____

Immersion Suit/PFDs: p. 6

Available for everyone on board? **Y N**

Location(s): _____

Distress Signals: p. 16

of distress signals meets federal requirements **Y N**

Location(s): _____

All distress signals within expiration date **Y N**
 (expires on date displayed)

EPIRB: p. 17

(Visual inspection only. Please leave all testing/handling to crew)

Location(s): _____

Battery exp. date: _____ (expires at end of month displayed)

Hydrostatic release expiration date: ____/____
 (expires at end of month displayed)

Located in a Coast Guard approved location?: **Y N**

NOAA Registration valid? **Y N**

Exp. date: _____ (expires at end of month displayed)

Registered to this vessel (name of vessel displayed): **Y N**

Alphanumeric code on decal matches code on EPIRB: **Y N**

Signal tested (or asked to see station log in wheelhouse for most recent test. Signal should be tested monthly): **Y N**

Fire Extinguishers: p. 19

Extinguisher(s) found in every main area/corridor? **Y N**

Extinguishers in "good and serviceable condition" (gauge in the green, low amounts of rust, canister in good condition, unobstructed, hoses attached, service tags available)? **Y N**

Throwable Flotation Devices: p. 8

Number of flotation devices appropriate for vessel size? **Y N**

of: Rings w/ line _____ Rings _____ Slings _____

Easily accessible?: **Y N**

Name of vessel displayed on each? **Y N**

Location(s): _____

<p>Additional Safety Checks:</p> <p>Factory hydraulic shut-off(s) - know location? Y N</p> <p>Watertight doors - do they close properly? Y N</p> <p>Hatches/passageways - are they unobstructed? Y N</p> <p>Discussed safe places to work on deck and in factory with captain/crew? Y N</p> <p>Discussed refrigerant leak procedures? Y N</p> <p>Type of refrigerant used _____</p> <p>To whom will you report marine casualties or inoperative alarms? _____</p> <p>Did you hear the general alarm? Y N</p>	<p>Communication Equipment: p. 26</p> <p>How many SSB and VHF radios?: _____ / _____</p> <p>Are emergency call instructions posted? Y N</p> <p>Were procedures for making an emergency call discussed? Y N</p> <p>List any additional communication systems onboard (satellite phone, in Reach, etc.) _____</p> <p>_____</p> <p>_____</p>
<p>Safety Orientation: p. 29</p> <p>Did you complete drills upon embarking? Y N</p> <p>Did the vessel conduct a safety orientation? Y N</p> <p>Did vessel personnel address all of the items in the safety checklist during the safety orientation? Y N</p> <p>Who gave the orientation? _____ (Detail what was covered in the comment section)</p> <p>Where will you go during emergencies: _____</p>	<p>Station Bill:</p> <p>Did you review the information on the Station Bill? Y N</p> <p>Describe your duties outlined in the station bill: _____ _____ _____</p>
<p>Observer Personal Protective Equipment:</p> <p>Personal Locator Beacon? Y N</p> <p>PLB UIN: _____</p> <p>Immersion Suit with Strobe Light and Battery? Y N</p> <p>Serial #: _____</p> <p>Personal Flotation Device with Strobe Light and Battery? Y N</p>	<p>Emergency Drills and Date(s) Conducted: p. 29</p> <p><i>(Document only drills you actually witnessed)</i></p> <p>Fire _____</p> <p>Abandon Ship _____</p> <p>Man Overboard _____</p> <p>Vessel flooding/stabilization _____</p> <p>General alarm activation _____</p> <p>Donning immersion suits _____</p> <p>Radio/visual distress signals _____</p> <p>Were the drills hands-on involving actual gear? Y N</p> <p>Did you participate in the drills? Y N</p>
<p>First Aid Materials: p. 24</p> <p>Location(s): _____</p> <p>Who is designated to perform CPR/First Aid on board? _____</p>	<p>Abandon Ship Plan:</p> <p>From your muster station, how will you get to and board survival craft? _____</p> <p>_____ _____ _____</p>
<p>Comments (All "N" responses require a comment):</p> <p>_____ _____ _____</p>	

Observer Name: _____

Cruise #: _____

Observer Signature: _____

Date: _____

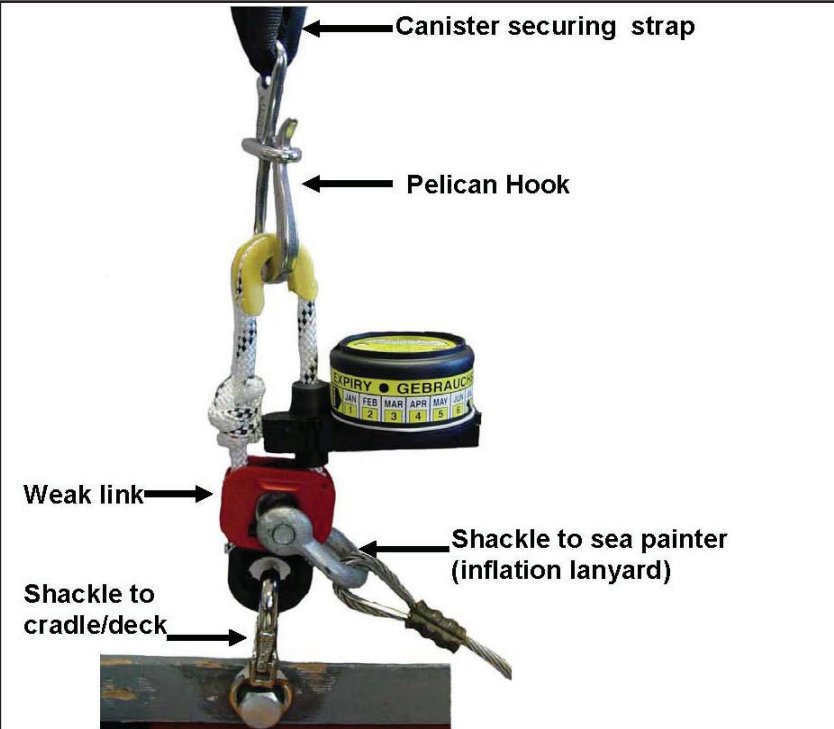
Captain Name: _____

Blue indicates "no go" items!

Vessel Safety Checklist

Vessel Name: _____ Vessel permit: _____

Ensure the USCG Commercial Fishing Vessel Safety decal is not expired. The expiration date is at the end of the month displayed.



Is the decal valid? **Y N**

Is hydrostatic release installed correctly? **Y N**

Survival Craft: p. 10
 Number of: _____
 Total capacity: _____
 # of crew & observers on board _____
Sufficient capacity? **Y N**
Survival crafts stowed correctly? Float free or otherwise in accordance with the Federal Requirements for Commercial Fishing Industry Vessels (p. 13) **Y N**
Service Due decal exp. date: ____/____ (expires at end of month displayed-inflatables only)
Hydrostatic release exp. date: ____/____ (expires at end of month displayed)
 Your survival craft assignment: _____

EPIRB: p. 17
 (Visual inspection only. Please leave all testing/handling to crew)
 Location(s): _____
Battery exp. date: _____ (expires at end of month displayed)
Hydrostatic release expiration date: ____/____ (expires at end of month displayed)
Located in a Coast Guard approved location?: **Y N**
NOAA Registration valid? **Y N**
 Exp. date: _____ (expires at end of month displayed)
Registered to this vessel (name of vessel displayed): **Y N**
Alphanumeric code on decal matches code on EPIRB: **Y N**
Signal tested (or asked to see station log in wheelhouse for most recent test. Signal should be tested monthly): **Y N**

Immersion Suit/PFDs: p. 6
Available for everyone on board? **Y N**
 Location(s): _____

Fire Extinguishers: p. 19
 Extinguisher(s) found in every main area/corridor? **Y N**
 Extinguishers in "good and serviceable condition" (gauge in the green, low amounts of rust, canister in good condition, unobstructed, hoses attached, service tags available)? **Y N**

Distress Signals: p. 16
 # of distress signals meets federal requirements **Y N**
 Location(s): _____
 All distress signals within expiration date **Y N**
 (expires on date displayed)

Throwable Flotation Devices: p. 8
Number of flotation devices appropriate for vessel size? **Y N**
 # of: Rings w/ line _____ Rings _____ Slings _____
 Easily accessible?: **Y N**
 Name of vessel displayed on each? **Y N**
 Location(s): _____

<p>Additional Safety Checks:</p> <p>Factory hydraulic shut-off(s) - know location? Y N</p> <p>Watertight doors - do they close properly? Y N</p> <p>Hatches/passageways - are they unobstructed? Y N</p> <p>Discussed safe places to work on deck and in factory with captain/crew? Y N</p> <p>Discussed refrigerant leak procedures? Y N</p> <p>Type of refrigerant used _____</p> <p>To whom will you report marine casualties or inoperative alarms? _____</p> <p>Did you hear the general alarm? Y N</p>	<p>Communication Equipment: p. 26</p> <p>How many SSB and VHF radios?: _____ / _____</p> <p>Are emergency call instructions posted? Y N</p> <p>Were procedures for making an emergency call discussed? Y N</p> <p>List any additional communication systems onboard (satellite phone, in Reach, etc.) _____</p> <p>_____</p> <p>_____</p>
<p>Safety Orientation: p. 29</p> <p>Did you complete drills upon embarking? Y N</p> <p>Did the vessel conduct a safety orientation? Y N</p> <p>Did vessel personnel address all of the items in the safety checklist during the safety orientation? Y N</p> <p>Who gave the orientation? _____ (Detail what was covered in the comment section)</p> <p>Where will you go during emergencies: _____</p>	<p>Station Bill:</p> <p>Did you review the information on the Station Bill? Y N</p> <p>Describe your duties outlined in the station bill: _____ _____ _____</p>
<p>Observer Personal Protective Equipment:</p> <p>Personal Locator Beacon? Y N</p> <p>PLB UIN: _____</p> <p>Immersion Suit with Strobe Light and Battery? Y N</p> <p>Serial #: _____</p> <p>Personal Flotation Device with Strobe Light and Battery? Y N</p>	<p>Emergency Drills and Date(s) Conducted: p. 29</p> <p><i>(Document only drills you actually witnessed)</i></p> <p>Fire _____</p> <p>Abandon Ship _____</p> <p>Man Overboard _____</p> <p>Vessel flooding/stabilization _____</p> <p>General alarm activation _____</p> <p>Donning immersion suits _____</p> <p>Radio/visual distress signals _____</p> <p>Were the drills hands-on involving actual gear? Y N</p> <p>Did you participate in the drills? Y N</p>
<p>First Aid Materials: p. 24</p> <p>Location(s): _____</p> <p>Who is designated to perform CPR/First Aid on board? _____</p>	<p>Abandon Ship Plan:</p> <p>From your muster station, how will you get to and board survival craft? _____ _____ _____</p>
<p>Comments (All "N" responses require a comment):</p> <p>_____</p> <p>_____</p>	

Observer Name: _____

Cruise #: _____

Observer Signature: _____

Date: _____

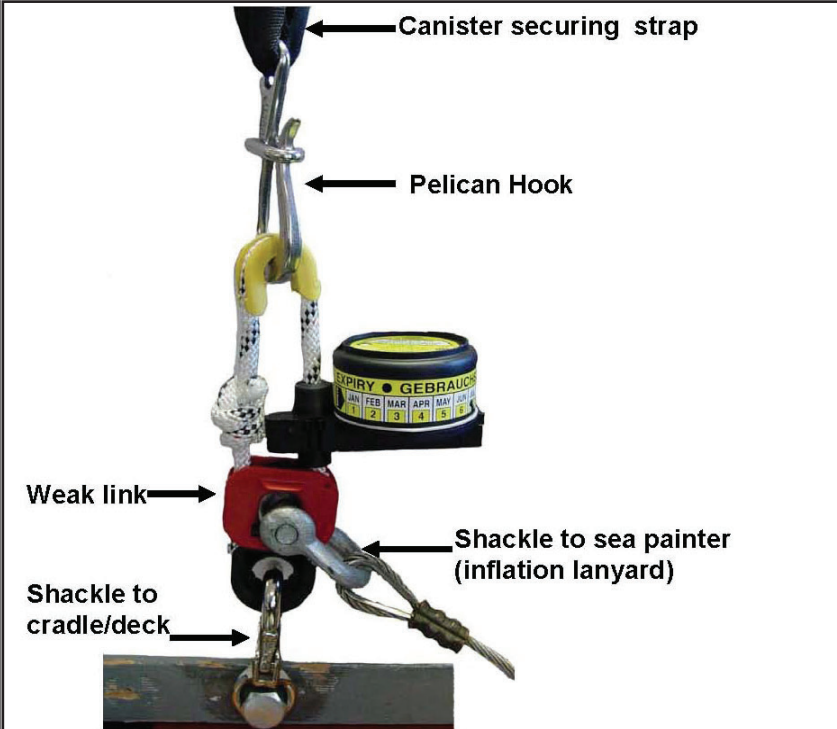
Captain Name: _____

Blue indicates "no go" items!

Vessel Safety Checklist

Vessel Name: _____ Vessel permit: _____

Ensure the USCG Commercial Fishing Vessel Safety decal is not expired. The expiration date is at the end of the month displayed.



Is the decal valid? **Y N**

Is hydrostatic release installed correctly? **Y N**

Survival Craft: p. 10

Number of: _____
 Total capacity: _____
 # of crew & observers on board _____

Sufficient capacity? **Y N**

Survival crafts stowed correctly? **Y N**

Float free or otherwise in accordance with the Federal Requirements for Commercial Fishing Industry Vessels (p. 13)

Service Due decal exp. date: ____/____
 (expires at end of month displayed-inflatables only)

Hydrostatic release exp. date: ____/____
 (expires at end of month displayed)

Your survival craft assignment: _____

Immersion Suit/PFDs: p. 6

Available for everyone on board? **Y N**

Location(s): _____

Distress Signals: p. 16

of distress signals meets federal requirements **Y N**

Location(s): _____

All distress signals within expiration date **Y N**
 (expires on date displayed)

EPIRB: p. 17

(Visual inspection only. Please leave all testing/handling to crew)

Location(s): _____

Battery exp. date: _____ (expires at end of month displayed)

Hydrostatic release expiration date: ____/____
 (expires at end of month displayed)

Located in a Coast Guard approved location?: **Y N**

NOAA Registration valid? **Y N**

Exp. date: _____ (expires at end of month displayed)

Registered to this vessel (name of vessel displayed): **Y N**

Alphanumeric code on decal matches code on EPIRB: **Y N**

Signal tested (or asked to see station log in wheelhouse for most recent test. Signal should be tested monthly): **Y N**

Fire Extinguishers: p. 19

Extinguisher(s) found in every main area/corridor? **Y N**

Extinguishers in "good and serviceable condition" (gauge in the green, low amounts of rust, canister in good condition, unobstructed, hoses attached, service tags available)? **Y N**

Throwable Flotation Devices: p. 8

Number of flotation devices appropriate for vessel size? **Y N**

of: Rings w/ line _____ Rings _____ Slings _____

Easily accessible?: **Y N**

Name of vessel displayed on each? **Y N**

Location(s): _____

<p>Additional Safety Checks:</p> <p>Factory hydraulic shut-off(s) - know location? Y N</p> <p>Watertight doors - do they close properly? Y N</p> <p>Hatches/passageways - are they unobstructed? Y N</p> <p>Discussed safe places to work on deck and in factory with captain/crew? Y N</p> <p>Discussed refrigerant leak procedures? Y N</p> <p>Type of refrigerant used _____</p> <p>To whom will you report marine casualties or inoperative alarms? _____</p> <p>Did you hear the general alarm? Y N</p>	<p>Communication Equipment: p. 26</p> <p>How many SSB and VHF radios?: _____ / _____</p> <p>Are emergency call instructions posted? Y N</p> <p>Were procedures for making an emergency call discussed? Y N</p> <p>List any additional communication systems onboard (satellite phone, in Reach, etc.) _____</p> <p>_____</p> <p>_____</p>
<p>Safety Orientation: p. 29</p> <p>Did you complete drills upon embarking? Y N</p> <p>Did the vessel conduct a safety orientation? Y N</p> <p>Did vessel personnel address all of the items in the safety checklist during the safety orientation? Y N</p> <p>Who gave the orientation? _____ (Detail what was covered in the comment section)</p> <p>Where will you go during emergencies: _____</p>	<p>Station Bill:</p> <p>Did you review the information on the Station Bill? Y N</p> <p>Describe your duties outlined in the station bill: _____ _____ _____</p>
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<p>First Aid Materials: p. 24</p> <p>Location(s): _____</p> <p>Who is designated to perform CPR/First Aid on board? _____</p>	<p>Abandon Ship Plan:</p> <p>From your muster station, how will you get to and board survival craft? _____</p> <p>_____ _____ _____</p>
<p>Comments (All "N" responses require a comment):</p> <p>_____ _____ _____</p>	

Observer Name: _____

Cruise #: _____

Observer Signature: _____

Date: _____

Captain Name: _____

Blue indicates "no go" items!

Transport Vessel Safety Profile

Use this page if you are boarding a vessel that is providing you with transportation to or from your vessel. This vessel has volunteered to transport you and it is not subject to observer coverage safety regulations. Regardless, your safety is your number one priority and the final decision to utilize this mode of transportation is yours. This page is intended to help you identify and familiarize yourself with safety equipment and emergency procedures while you are aboard this vessel. Always exercise your best judgment and follow the 7 Steps to Survival to evaluate every situation that may arise on a vessel to ensure the proper emergency response.

TRANSPORT PLAN			
Transport Vessel Name _____	Vessel Type _____		
Duration _____ min	hrs	Distance _____ m	km Can you see your destination? Y N
From _____	To _____		
Departure Time: _____	Estimated Time of Arrival: _____	Date _____	
Are your contractor and the A-SHOP aware of your Transport Plan? _____			

Trip and Weather Conditions

Assess the following to help you determine if it is appropriate to embark on this vessel. **Do not embark** a transport vessel in rough seas, inclement weather, at night, or any other conditions that you feel are unsafe.

Beaufort scale _____ Meters of Visibility _____ Weather (circle): Clear Cloudy Rain Fog

Safety on Board

Identify the following safety equipment to evaluate if it is appropriate based on your Trip and Weather Condition observations. We recommend that you not embark on a transport vessel that is not equipped with the safety equipment that will provide a sufficient inventory to address an emergency.

- PFDs • Immersion Suits • Survival Crafts • EPIRB/PLB • Fire Extinguishers
- Signals (general alarm, radios, distress signals) • Throwable Flotation Devices • First Aid

Additional Safety Procedures

- Safety Orientation: Request a safety orientation from the master of the vessel or crew member.
- Station Bill: If available, familiarize yourself with it and recognize your potential role in an emergency.
- Develop a plan of action for how you will respond to a fire, flood, MOB, or an abandon ship emergency.
- If the vessel is equipped with a survival craft, identify the muster station and where you would board the craft in an emergency.
- Look for watertight doors and if you see them open while underway, inform a crew member and ask if it should be closed.
- Look at the general vessel conditions; does the vessel appear to be in a condition appropriate for the trip? Consider all observations listed above.
- If you are being transported on a commercial fishing vessel, refer to your Safety Checklist and the USCG Federal Requirements for Commercial Fishing Industry Vessels Pamphlet provided in briefing/training for additional information.

If you embark on additional transport vessel trips, please record transport plans on the following page.

TRANSPORT PLAN

Transport Vessel Name _____ Vessel Type _____

Duration _____ min hrs Distance _____ m km Can you see your destination? Y N

From _____ To _____

Departure Time: _____ Estimated Time of Arrival: _____ Date _____

Are your contractor and the A-SHOP aware of your Transport Plan? _____

Beaufort scale _____ Meters of Visibility _____ Weather (circle): Clear Cloudy Rain Fog

TRANSPORT PLAN

Transport Vessel Name _____ Vessel Type _____

Duration _____ min hrs Distance _____ m km Can you see your destination? Y N

From _____ To _____

Departure Time: _____ Estimated Time of Arrival: _____ Date _____

Are your contractor and the A-SHOP aware of your Transport Plan? _____

Beaufort scale _____ Meters of Visibility _____ Weather (circle): Clear Cloudy Rain Fog

TRANSPORT PLAN

Transport Vessel Name _____ Vessel Type _____

Duration _____ min hrs Distance _____ m km Can you see your destination? Y N

From _____ To _____

Departure Time: _____ Estimated Time of Arrival: _____ Date _____

Are your contractor and the A-SHOP aware of your Transport Plan? _____

Beaufort scale _____ Meters of Visibility _____ Weather (circle): Clear Cloudy Rain Fog

TRANSPORT PLAN

Transport Vessel Name _____ Vessel Type _____

Duration _____ min hrs Distance _____ m km Can you see your destination? Y N

From _____ To _____

Departure Time: _____ Estimated Time of Arrival: _____ Date _____

Are your contractor and the A-SHOP aware of your Transport Plan? _____

Beaufort scale _____ Meters of Visibility _____ Weather (circle): Clear Cloudy Rain Fog

MAY 2020							JUNE 2020						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30				
31													
JULY 2020							AUGUST 2020						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29
							30	31					
SEPTEMBER 2020							OCTOBER 2020						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5					1	2	3
6	7	8	9	10	11	12	4	5	6	7	8	9	10
13	14	15	16	17	18	19	11	12	13	14	15	16	17
20	21	22	23	24	25	26	18	19	20	21	22	23	24
27	28	29	30				25	26	27	28	29	30	31
NOVEMBER 2020							DECEMBER 2020						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7			1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30						27	28	29	30	31		

MAY 2021							JUNE 2021						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1			1	2	3	4	5
2	3	4	5	6	7	8	6	7	8	9	10	11	12
9	10	11	12	13	14	15	13	14	15	16	17	18	19
16	17	18	19	20	21	22	20	21	22	23	24	25	26
23	24	25	26	27	28	29	27	28	29	30			
30	31												
JULY 2021							AUGUST 2021						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
				1	2	3	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	31	29	30	31				
SEPTEMBER 2021							OCTOBER 2021						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1	2	3	4						1	2
5	6	7	8	9	10	11	3	4	5	6	7	8	9
12	13	14	15	16	17	18	10	11	12	13	14	15	16
19	20	21	22	23	24	25	17	18	19	20	21	22	23
26	27	28	29	30			24	25	26	27	28	29	30
							31						
NOVEMBER 2021							DECEMBER 2021						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat
	1	2	3	4	5	6				1	2	3	4
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30					26	27	28	29	30	31	

MARPOL Reporting

Discharge of all garbage, most importantly all forms of plastic, is prohibited into the navigable waters of the United States and into all other waters except as specifically allowed below:

- Within 3 nautical miles of land - discharge of all garbage is prohibited.
- 3-12 nautical miles from land - ground food waste that is able to pass through a screen with openings no larger than 1 inch is permitted.
- 12 or more nautical miles from land - food waste, wash water, cargo residues and cleaning agents not harmful to the marine environment are permitted.

Form Instructions:

- Complete a form whenever you observe the dumping of plastics, discharge of oil or other petroleum product, or dumping of any prohibited materials by the vessel.
- Be as descriptive as possible. Make sure to record the date, location, and type of violation.
- Definitions of descriptions of oil or petroleum product discharge:

Sheen - A very thin layer of oil floating on the water surface. Sheen is the most commonly observed form of oil during the later stages of a spill. Depending on the thickness, sheens range in color from dull brown for the thickest sheens to rainbows, grays, silvers, and near-transparency in the case of the thinnest sheens.

Sludge - Usually refers to oil that has mixed with other oils or other natural materials that it picks up as it floats along. Sludge is usually seen with heavier oils and creates a substance that is thick and gooey (think, sewer sludge).

Emulsion - The formation of a water-in-oil mixture. Different oils exhibit different tendencies to emulsify, and emulsification is more likely to occur under high energy conditions (strong winds and waves). An emulsified mixture of water in oil is commonly called a "mousse;" its presence indicates a spill that has been on the water for some time. An emulsion can range in color from dark brown to nearly red or tan, and typically has a thickened or pudding-like consistency compared with fresh oil.

Discoloration - Oil that causes a discoloration to the water. Thicker oils in cold weather will tend to stick together on the water and not create a "sheen" readily. The oil creates a distinct patch on the water. Also, some heavier oils tend to sink below the surface and become suspended in the water column, causing dark colored patches under the surface of the water.

- If the oil spill that you observe does not fit any of these descriptions, then use your own descriptive terms to define what you see. It is more important to report an accurate description of the spill than to make the spill fit into one of these four categories.
- If you need to make more room you may use the back of the form or your logbook pages. Make sure to reference the page number of the logbook on the form.
- Copies can be made of the forms.

Report of Marine Pollution from Commercial Fishing Vessels

At a minimum, provide information for the fields that are underlined.

General Information

<u>Name of vessel</u>	<u>Permit Number</u>	<u>Name of Vessel Captain</u>
<u>Date of Incident</u>	<u>Location (Lat/Long) of incident</u>	<u>Name of NMFS Observer</u>

Type of Discharge

Oil/Petroleum Product: *Be as specific as possible, use the comments box to explain circumstances, attach extra pages, or write on the back of this form, if necessary.*

<u>What did the discharge look like?</u> Circle one and describe below	Sheen	Sludge	Emulsion	Discoloration
Size of Sheen (ft X ft)	Amount if known (gallons):			
Type of Oil: Circle One	Diesel	Lube Oil	Hydraulic Oil	Other (explain)

Source of Oil? Please explain. i.e. broken hydraulic line, engine leak, etc.

Path of Discharge: Explain route of discharge from origin to water, i.e. Bilge pump, scupper etc.

Plastics: *Be as specific as possible, use the comments box to explain circumstances, attach extra pages, or write on the back of this form, if necessary. Any plastic discharge is a violation*

Type and amount of Plastic: i.e. 20 ft hose, 3 trash bags, one set of rain gear etc.

HAZMAT: *Some chemicals can be discharged if below a certain amount (reportable quantity). For our purposes, report anything that seems wrong to you. Be as specific as possible.*

Type of HAZMAT: Provide chemical name. i.e. ammonia leak, Ask skipper, engineer if necessary.

Amount: Either in gallons if liquid or pounds if a solid. Estimate when necessary.

Comments: Use reverse side if necessary.

Vessel Diagram Instructions

Diagrams are useful documentation in every debriefing and many observer statements. They do not have to look like they were drawn by an architect, but they should include the following basic features. Use different colors of ink, if its helpful to demonstrate features.

Orientation: Label the sides and ends for your diagram as appropriate to indicate port and starboard, bow and stern, overhead and deck.

Dimensions: Label each dimension using standard abbreviations (ft, m, cm, etc.).

Features: Label each feature carefully. Draw lines or arrows from each label to the feature it describes, or write the label on the feature if there is enough room. You can use keys to label repeated features (such as locations of factory workers) but make them clear and distinct.

Use the Sampling Area Diagram Features Checklist to ensure you include the following features:

- flow of fish
- sample collection location
- incline belts
- diverter board
- flow scale and flow scale readout
- MCP
- sample table
- hose location
- discard / fish meal chutes

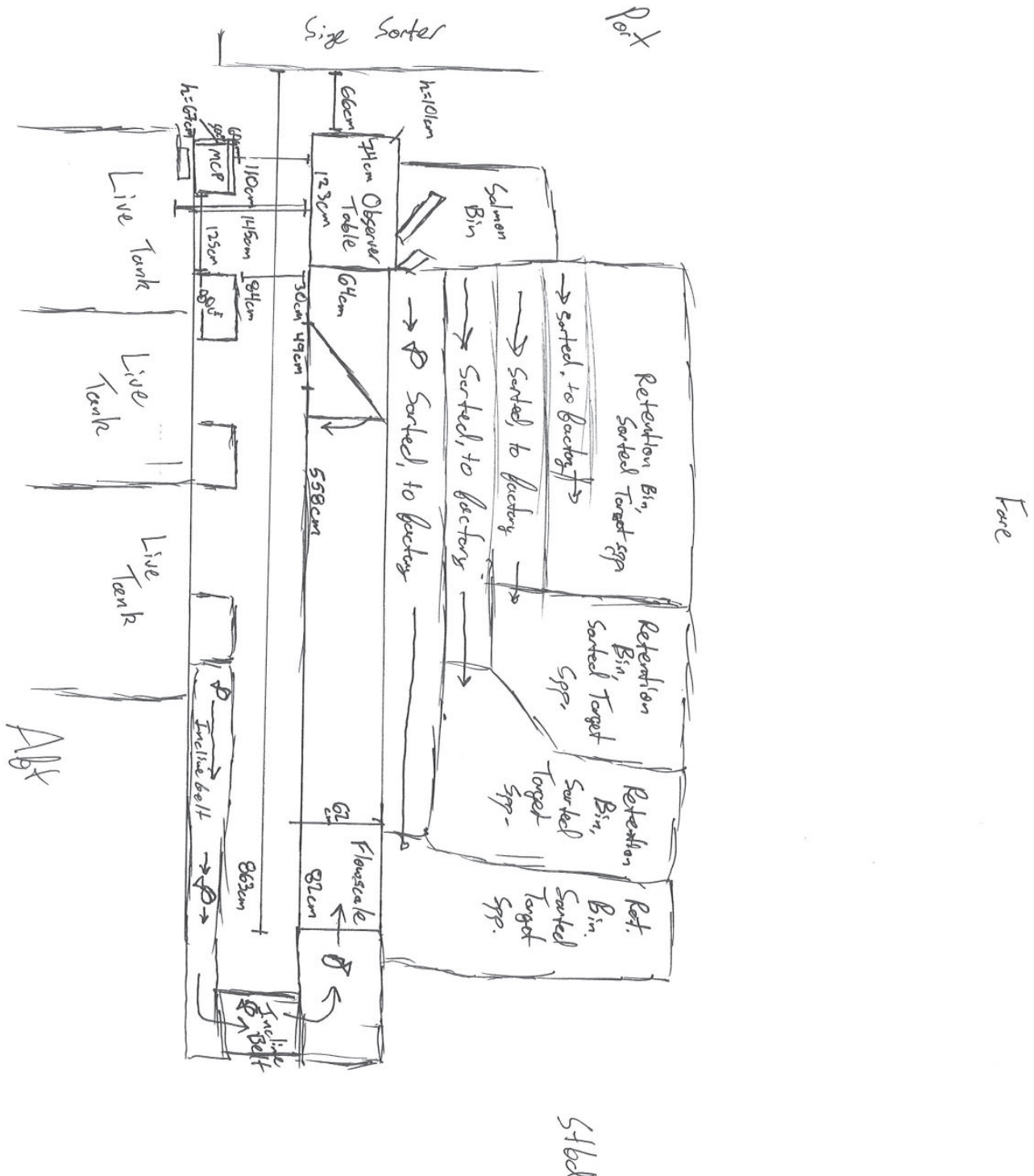
It is acceptable to use the vessel's diagram but all of the above features need to be shown.

If applicable, you should draw diagrams of areas in which you witnessed violations.

Diagrams of Sampling Area

Vessel Name Example of Trawl Factory Layout

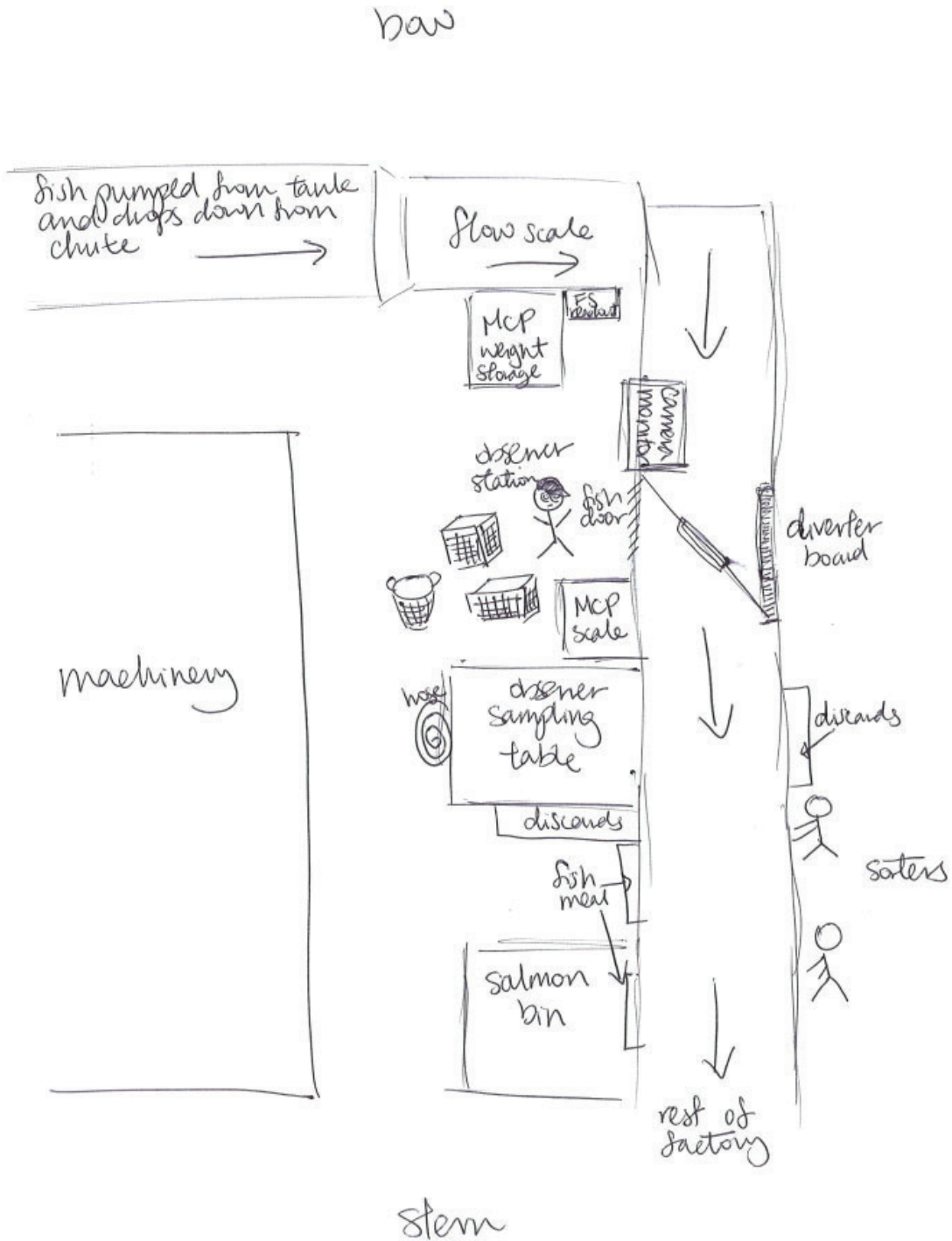
Sampling Area Diagram Features Checklist					
X	orientation	X	diverter board	X	sample table
X	flow of fish	X	flow scale		hose location
X	sample collection location	X	flow scale readout	X	discard / fish meal chutes
X	incline belts	X	MCP		hydraulic shut-off



Diagrams of Sampling Area

Vessel Name Example of Trawl Factory Layout

Sampling Area Diagram Features Checklist					
X	orientation	X	diverter board	X	sample table
X	flow of fish	X	flow scale	X	hose location
X	sample collection location	X	flow scale readout	X	discard / fish meal chutes
X	incline belts	X	MCP		hydraulic shut-off



Diagrams of Sampling Area

Vessel Name _____

Sampling Area Diagram Features Checklist			
orientation		diverter board	sample table
flow of fish		flow scale	hose location
sample collection location		flow scale readout	discard / fish meal chutes
incline belts		MCP	hydraulic shut-off

Diagrams of Sampling Area

Vessel Name _____

Sampling Area Diagram Features Checklist					
	orientation		diverter board		sample table
	flow of fish		flow scale		hose location
	sample collection location		flow scale readout		discard / fish meal chutes
	incline belts		MCP		hydraulic shut-off

Diagrams of Sampling Area

Vessel Name _____

Sampling Area Diagram Features Checklist					
<input type="checkbox"/>	orientation	<input type="checkbox"/>	diverter board	<input type="checkbox"/>	sample table
<input type="checkbox"/>	flow of fish	<input type="checkbox"/>	flow scale	<input type="checkbox"/>	hose location
<input type="checkbox"/>	sample collection location	<input type="checkbox"/>	flow scale readout	<input type="checkbox"/>	discard / fish meal chutes
<input type="checkbox"/>	incline belts	<input type="checkbox"/>	MCP	<input type="checkbox"/>	hydraulic shut-off

Diagrams of Sampling Area

Vessel Name _____

Sampling Area Diagram Features Checklist					
<input type="checkbox"/>	orientation	<input type="checkbox"/>	diverter board	<input type="checkbox"/>	sample table
<input type="checkbox"/>	flow of fish	<input type="checkbox"/>	flow scale	<input type="checkbox"/>	hose location
<input type="checkbox"/>	sample collection location	<input type="checkbox"/>	flow scale readout	<input type="checkbox"/>	discard / fish meal chutes
<input type="checkbox"/>	incline belts	<input type="checkbox"/>	MCP	<input type="checkbox"/>	hydraulic shut-off

Sample Station Inspections and Inspection Reports

Vessels required by regulation to have an observer sampling station or motion compensated platform scale must have those items certified. Observer sampling stations are certified by Fisheries Analysis and Monitoring Division (FMA) staff and motion compensated platform scales are certified by NMFS Regional Office staff. Certification is good for one year from the date the observer sampling station or motion compensated scale was approved.

Observer Sampling Station Certification Verification

Request an Observer Sampling Station Inspection Report from the vessel. A faxed copy and original inspection report was sent to each vessel's home office following certification and the vessel should be able to obtain a copy. Notify your inseason advisor if the vessel does not have a copy onboard. Document any discrepancies between the inspection report and your verification on the Observer Sample Station Verification Checklist.

Before you complete your inspection of the sampling station to verify that all requirements are met (table of acceptable area and height, adequate work space, etc.), make sure the station is completely set up. Many vessels store their motion compensated platform scales or disassemble the observer sampling station when switching between fisheries. If possible, test the platform scale before your vessel embarks to make sure it passes the daily test (see "Platform Scale Testing" in your Alaska manual). The scale should be turned on at least 1/2 hour prior to testing so it can warm up. If the scale is not warmed up the display weight may drift.

Sample Station Verification Checklist

Vessel Name: _____ Permit Number: _____

Date: _____

Physical Characteristics of Sampling Station - Factory Vessels			
Item	Requirement	Complies?	Inspector Comments
<p>Sample Station Location</p> <p><i>If Sample Collection Area is Within Sample Station, Record as: 0.0.</i></p>	<p>Trawlers/Motherships - within 4.0 m of unsorted sample Collection Area. From sample Collection Area, observer must be able to see that no fish have been removed between the live bin and flow scale.</p>	<p>YES</p> <p>NO</p>	<p>Distance of Sample Station to Sample Collection Area:</p> <p>Location of Sample Collection Area:</p>
<p>Unobstructed Passage</p>	<p>Passageways between Sample Station and Collection Area must be at least 65 cm wide at the narrowest point. In these areas the Ceiling Height must be at least 1.8 m from the lowest point on the ceiling. No tripping hazards exist between Sample Station and Collection Area.</p>	<p>YES</p> <p>NO</p>	<p>Passage Width(s):</p> <p>Minimum Ceiling Height:</p> <p>Obstructions:</p>
<p>Minimum Work Space</p>	<p>Sample Station Work Area is at least 4.5 square meters, including sampling table (multiple area measurements may be necessary).</p> <p>Has a work area at least 0.9 m deep in front of the table and MCP scale.</p> <p><i>Please show all calculations; use additional space if needed.</i></p>	<p>YES</p> <p>NO</p>	<p>Length(s):</p> <p>Width(s):</p> <p>Depth in Front of Table and MCP Scale:</p> <p>Unusable Space:</p>
<p>Accessible Belt Space</p>	<p>1.0 m or more of accessible belt space, downstream of flow scale, must be available for observer use in sample collections of all sizes.</p>	<p>YES</p> <p>NO</p>	<p>Length of Belt Space:</p>

Item	Requirement	Complies?	Inspector Comments
Diverter Board	Conveyor belt carrying unsorted catch must have a removable (from flow of fish) and functional board to divert fish into observer baskets.	YES NO	Description of Diverter Board:
Table	At least 0.6 m deep x 1.2 m wide x 0.9 m high and not more than 1.1 m high. Table must be secured to floor or wall. (Area for MCP scale is not included in this space).	YES NO	Length: Width: Height:
Observer Sampling Scale (MCP Scale)	Electronic motion-compensated platform scale with capacity of at least 50 kg is within 1.0 m of sampling table with weighing surface no greater than 0.7 m above flooring (scale need not be present at inspection).	YES NO	Distance from MCP Scale to Table: Scale Height (Estimate if Scale Absent):
Flow Scale Display	Flow scale display is readable from where observer collects unsorted samples.	YES NO	Display Location:
Flooring	Grating, or other non-slip material that drains well, located throughout Sample Station, and Collection Areas exposed to wind and seas.	YES NO	Type: Condition:
Lighting	Lighting adequate to allow observer to collect samples during day or night.	YES NO	Type: Number of Lights:
Hose	Hose supplying fresh or salt water to the observer at the Sample Station.	YES NO	Type: Location:
Sample Sizes	Sample Station and Collection Area configuration allows observer to weigh large samples.	YES NO	

Additional Comments/Calculations:

Sample Station Verification Checklist

Vessel Name: _____ Permit Number: _____

Date: _____

Physical Characteristics of Sampling Station - Factory Vessels			
Item	Requirement	Complies?	Inspector Comments
<p>Sample Station Location</p> <p><i>If Sample Collection Area is Within Sample Station, Record as: 0.0.</i></p>	<p>Trawlers/Motherships - within 4.0 m of unsorted sample Collection Area. From sample Collection Area, observer must be able to see that no fish have been removed between the live bin and flow scale.</p>	<p>YES</p> <p>NO</p>	<p>Distance of Sample Station to Sample Collection Area:</p> <p>Location of Sample Collection Area:</p>
<p>Unobstructed Passage</p>	<p>Passageways between Sample Station and Collection Area must be at least 65 cm wide at the narrowest point. In these areas the Ceiling Height must be at least 1.8 m from the lowest point on the ceiling. No tripping hazards exist between Sample Station and Collection Area.</p>	<p>YES</p> <p>NO</p>	<p>Passage Width(s):</p> <p>Minimum Ceiling Height:</p> <p>Obstructions:</p>
<p>Minimum Work Space</p>	<p>Sample Station Work Area is at least 4.5 square meters, including sampling table (multiple area measurements may be necessary).</p> <p>Has a work area at least 0.9 m deep in front of the table and MCP scale.</p> <p><i>Please show all calculations; use additional space if needed.</i></p>	<p>YES</p> <p>NO</p>	<p>Length(s):</p> <p>Width(s):</p> <p>Depth in Front of Table and MCP Scale:</p> <p>Unusable Space:</p>
<p>Accessible Belt Space</p>	<p>1.0 m or more of accessible belt space, downstream of flow scale, must be available for observer use in sample collections of all sizes.</p>	<p>YES</p> <p>NO</p>	<p>Length of Belt Space:</p>

Item	Requirement	Complies?	Inspector Comments
Diverter Board	Conveyor belt carrying unsorted catch must have a removable (from flow of fish) and functional board to divert fish into observer baskets.	YES NO	Description of Diverter Board:
Table	At least 0.6 m deep x 1.2 m wide x 0.9 m high and not more than 1.1 m high. Table must be secured to floor or wall. (Area for MCP scale is not included in this space).	YES NO	Length: Width: Height:
Observer Sampling Scale (MCP Scale)	Electronic motion-compensated platform scale with capacity of at least 50 kg is within 1.0 m of sampling table with weighing surface no greater than 0.7 m above flooring (scale need not be present at inspection).	YES NO	Distance from MCP Scale to Table: Scale Height (Estimate if Scale Absent):
Flow Scale Display	Flow scale display is readable from where observer collects unsorted samples.	YES NO	Display Location:
Flooring	Grating, or other non-slip material that drains well, located throughout Sample Station and Collection Areas exposed to wind and seas.	YES NO	Type: Condition:
Lighting	Lighting adequate to allow observer to collect samples during day or night.	YES NO	Type: Number of Lights:
Hose	Hose supplying fresh or salt water to the observer at the Sample Station.	YES NO	Type: Location:
Sample Sizes	Sample Station and Collection Area configuration allows observer to weigh large samples.	YES NO	

Additional Comments/Calculations:

Daily Observer MCP Scale Test Log

Vessel Name				Observer Name		
Date	Time	Display Weight			Pass/Fail	Observer Initials
		10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)		

Instructions:

1. Scale should be tested daily
2. Test scale at 10 kg, 25 kg, and 50 kg
3. Display must be accurate to +/- 0.5 percent

Daily Observer MCP Scale Test Log

Vessel Name				Observer Name		
Date	Time	Display Weight			Pass/Fail	Observer Initials
		10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)		

- Instructions:
1. Scale should be tested daily
 2. Test scale at 10 kg, 25 kg, and 50 kg
 3. Display must be accurate to +/- 0.5 percent

Daily Observer MCP Scale Test Log

Vessel Name				Observer Name		
		Display Weight				
Date	Time	10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)	Pass/Fail	Observer Initials

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1. Scale should be tested daily
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Daily Observer MCP Scale Test Log

Vessel Name			Observer Name			
		Display Weight				
Date	Time	10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)	Pass/Fail	Observer Initials

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Daily Observer MCP Scale Test Log

Vessel Name			Observer Name			
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Date	Time	10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)	Pass/Fail	Observer Initials

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1. Scale should be tested daily
 2. Test scale at 10 kg, 25 kg, and 50 kg
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Daily Observer MCP Scale Test Log

Vessel Name			Observer Name			
		Display Weight				
Date	Time	10 kg (9.95 to 10.05 kg)	25 kg (24.88 to 25.13 kg)	50 kg (49.75 to 50.25kg)	Pass/Fail	Observer Initials

- Instructions:
1. Scale should be tested daily
 2. Test scale at 10 kg, 25 kg, and 50 kg
 3. Display must be accurate to +/- 0.5 percent

Catcher-Processor Catch Estimate Calculations

mothership observers - use the Mothership Catch Estimate and Discard Calculations section

Use the pages in this section to document flowscale and total catch weight. Remember to add to the total flowscale value the weight of any items that were too large to go over the flowscale. If you run out of room in this section, continue your documentation in the Additional Calculations section of this logbook.

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms
EXAMPLE:			
1	56699 kgs	0	56699 kgs
2	45231 kgs	+150 kg (salmon shark)	45381 kgs
3	37362 kgs	0	37362kgs

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Vessel Name: _____

Haul #	Flowscale Stop Minus Start Equals Total Flowscale Weight (kgs)	Add Large Items not Weighed (kgs)	Rounded Total Catch Estimate in Kilograms

Catcher-Processor Catch Estimate Calculations

Mothership Catch Estimate and Discard Calculations

Use the pages in this section to document flowscale weight, total catch weight, the weight of any items that were too large to go over the flowscale, and catcher vessel (CV) discards reported from the catcher vessel observer. Use these values to calculate Estimated Discard Weight and Observer Catch Estimate. Also, calculate the percent of catch delivered for hauls with CV discards. If the percent of catch delivered is < 100%, you will need to adjust the percent retained for all species from that haul on your decksheets and in ATLAS. If you run out of room in this section, continue your documentation in the Additional Calculations section of this logbook.

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg)	[A]	[A] + Large Items Not Weighed on Flowscale (kg)	[B]	CV discard estimate (lb)	CV discard (kg) = [C] x 0.4536 kg/lb	MS discards (kg)	record on OHF		% of catch delivered = $\frac{[B] + [F]}{[B] + [F]} \times 100$
									Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D]	
EXAMPLE:											
1	Poseidon	37814 kg		37814 kg	1500 lb	680 kg	115 kg	795 kg	38494 kg	98%	
2	Siren's Call	39251 kg		39251 kg	---	---	89 kg	89 kg	39251 kg	100%	
3	Sea Witch	44281 kg	^{+100 kg salmon shark}	44381 kg	500 lb	227 kg	167 kg	394 kg	44608 kg	99%	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $\frac{[B] + [F]}{[F]} \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $([B] / [F]) \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] + [F]	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF	record on OHF	% of catch delivered = $\frac{[B] + [F]}{[F]} \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Motherhip Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $([B] / [F]) \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF Estimated Discard Weight (kg) = [D] + [E]	record on OHF Observer Catch Estimate (kg) = [B] + [D] + [F]	% of catch delivered = $\frac{[B] + [F]}{[B] + [F]} \times 100$

Mothership Vessel Name _____

							record on OHF	record on OHF	
Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	% of catch delivered = $([B] / [F]) \times 100$

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg)	[A] + Large items Not Weighed on Flowscale (kg)	CV discard estimate (lb)	CV discards (kg) = [C] x 0.4536 kg/lb	MS discards (kg)	record on OHF		% of catch delivered = $([B] / [F]) \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D]	
	[A]	[B]	[C]	[D]	[E]		[F]		

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $([B] / [F]) \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $\frac{[B] + [F]}{[F]} \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Mothership Vessel Name _____

		record on OHF	record on OHF									
Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	% of catch delivered = ([B] / [F]) x 100			

Mothership Vessel Name _____

						record on OHF	record on OHF		
Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	% of catch delivered = ([B] / [F]) x 100

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large Items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF	record on OHF	% of catch delivered = $\frac{[B] + [F]}{[F]} \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] + [F]	

Mothership Vessel Name _____

Haul #	Catcher Vessel Name	Flowscale End - Start = Flowscale Weight (kg) [A]	[A] + Large items Not Weighed on Flowscale (kg) [B]	CV discard estimate (lb) [C]	CV discards (kg) = [C] x 0.4536 kg/lb [D]	MS discards (kg) [E]	record on OHF		% of catch delivered = $\frac{[B] + [F]}{[F]} \times 100$
							Estimated Discard Weight (kg) = [D] + [E]	Observer Catch Estimate (kg) = [B] + [D] [F]	

Additional Calculations

Use the following blank pages to document calculations, including derivation of calculations of percent retained and discard, and calculations of total catch weights. Please strive to be consistent and neat with your documentation.

Vessel Name _____

Vessel Name _____

Additional Calculations

Vessel Name _____

Vessel Name _____

Additional Calculations

Vessel Name _____

Vessel Name _____

Sample Design Detail Instructions

Sampling design descriptions must be documented! Complete a Sample Design Description form each time you change vessels or significantly alter your sampling approach. Consider your sampling options based upon species diversity, storage space, and vessel assistance. **Document both typical (low) bycatch and high bycatch sample designs.**

ALL ENTRIES MUST BE MADE IN INK!

For each vessel you must describe:

- the flow of fish, detailing any biasing factors
- the population from which you are sampling
- the sample methods used
- how samples are selected
- any factors that impact your ability to sample randomly

Sample Design EXAMPLE:

Vessel Name: McHakester

How do fish flow from the codend to the point where you collect your sample?

Fish are emptied from codend over the excluder bars into the bins. They flow from the bins up the incline belt, over the flowscale, onto the sorting belt where I collect my samples, then to the size-sorting bins in the factory.

Species Composition Samples

What is the population of fish from which you are sampling? All fish in the codend; hauls have been clean 30-60 MT hauls.

How are you generating random numbers? NMFS issued random number table (RNT)

Describe each element of your sample design:

Typical (low bycatch) haul:

How are you randomly selecting your sample(s) from the population? I divide the haul weight in half and refer to the list of pre-chosen halves we generated using the RNT to determine which half to sample.

What units are you using? I have been using a spatial frame by dividing the estimated haul weight into 2 equal units (typically 15-35 MT), depending on the size of the bag.

What is your sampling method? I remove all bycatch from the sorting belt and weigh it on the MCP. The hauls have been pretty clean, so there is little problem collecting large sample sizes.

Subsampling for two predominant species:

How are you randomly selecting your sample(s) from the population? I will use a spatial sample frame by dividing the sample unit into subsample units of equal size. I use the RNT to randomly select which units will be subsampled.

What units are you using? I will employ the 'flowscale is my friend' method using 1 MT units. If the 2nd

predominant species is closer to 50% of the catch, I will use baskets to try to get ~200kg for each subsample.

What is your sampling method? I will divide the sample into 3 equal units and randomly choose a start point in the first unit, sampling systematically throughout the rest of the sample (e.g. haul is 30MT with some dogfish, randomly chose 1st half to sample, broke sample into 3 units of 5MT, used RNT to pick #3, first subsample at 3MT, second subsample at 8MT, third subsample at 13MT). Size of subsamples will either be ~200kg or ~1MT (using flowscale), depending on size and prevalence of second predominant species.

High bycatch haul:

How are you randomly selecting your sample(s) from the population? I divide the sample into equal-sized units based on how much I think I can sample at one time. Then I use a random-systematic sample frame to choose when to sample. Smaller sample sizes are employed for dirtier hauls

What units are you using? I have been using a spatial frame by dividing the sample into equal sized units. Unit size depends upon how much bycatch is seen. Smaller sample sizes are employed for dirtier hauls

What is your sampling method? If species of concern present, I will get help and try to maintain 50% sample size. If no species of concern present or no help given, I will systematically sample throughout my randomly chosen half (e.g. 30MT sample: sample 5MT, take 5MT off to work up sample, repeat).

How are you accounting for potential incline belt bias (e.g. live tank doors closed before and after sample)?

For all species comp samples, I have the bleeder close the live tank doors and run out all the fish on the belts after the doors at the beginning and end of each sample.

What factors affected the collection of your random sample (e.g. sorting, limited access)? For especially dirty hauls, I am limited by how much bycatch can be stored. The excluder bars are preventing large organisms from entering the tanks. I watch the bag dump when not sampling and asked the deck crew to notify me so I can know when a large item has been kept from going into the tanks because of the excluder bars.

Did you census for species composition? Y N

Hake average weights / Flowscale-MCP weight test:

What is your method for collecting hake average weights / conducting the Flowscale-MCP test?

I randomly select a ton within my sample. When the flowscale hits my randomly chosen ton, I have the bleeder stop the belts prior to the flowscale, I record the start flowscale weight, start the belts and run ~50 fish onto the sorting belt, then stop the belts and I record the end flowscale weight. I weigh the unsorted basket on the MCP, then count and weigh the hake for average weight. When there are two predominant species, I randomly select one of my subsamples from which to collect the average weight sample

Sex/Length Samples:

For HAKE:

What is the population of fish from which you are sampling? All the fish in my average weight sample.

How are you generating random numbers? NMFS issued random number table

How are you randomly selecting your sample(s) from the population? I use my randomly collected hake average weight sample.

What is your sampling method? I basket dump to split the average weight sample to about 15 fish.

For NON-HAKE SPECIES:

What is the population of fish from which you are sampling? All the fish in my sample (bycatch).

How are you randomly selecting your sample(s) from the population? When there are only a few individuals of a species, I take sex/lengths from all of that species in my species comp sample

What is your sampling method? I set aside all the individuals of certain species from my species comp sample to take sex/lengths

Which species? Spiny dogfish, bocaccio, darkblotched, POP, canary

If you use more than one method for selecting non-hake sex/lengths, describe them below.

How are you randomly selecting your sample(s) from the population? When there are more individuals of a species than is indicated on the priority list, I choose a random basket from my species comp sample to take sex/lengths

What is your sampling method? As I count and weigh my species comp sample, I set aside separated baskets of fish on the priority list. Then I choose a random basket take sex/lengths from.

Which species? Spiny dogfish, rougheye, widow, yellowtail

How are you randomly selecting your sample(s) from the population? When there are a lot of a particular species in a haul, I choose a random point in the sample and set aside the next ~20 individuals of that species to take sex/lengths from.

What is your sampling method? I set aside the next ~20 individuals of that species right after my hake average weight sample.

Which species? Spiny dogfish, yellowtail

What factors affected the collection of your random sample (e.g. sorting, limited access)? There have been no problems or factors affecting my ability to collect a random sex/length sample.

Biopecimen Samples (ages, genetics, etc.):

What is the population of fish from which you are sampling? All the fish in my sex/length samples.

How are you generating random numbers? NMFS issued random number table

How are you randomly selecting your sample(s) from the population? My frame is spatial - fish are placed on my sample table and numbered sequentially.

What is your sampling method? I select the fish corresponding to the random numbers I have chosen from the RNT.

What factors affected the collection of your random sample (e.g. sorting, limited access)? This method is working great, with no problems to date.

Sample Design Detail

Vessel Name: _____

How do fish flow from the codend to the point where you collect your sample?

Species Composition Samples

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

Describe each element of your sample design:

Typical (low bycatch) haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Subsampling for two predominant species:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

High bycatch haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Did you census for species composition? Y N

Hake average weights / Flowscale-MCP weight test:

What is your method for collecting hake average weights / conducting the Flowscale-MCP test?

How are you accounting for potential incline belt bias (e.g. live tank doors closed before and after sample)?

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Sex/Length Samples:

For HAKE:

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

For NON-HAKE SPECIES:

What is the population of fish from which you are sampling? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

If you use more than one method for selecting non-hake sex/lengths, describe them below.

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Biopecimen Samples (ages, genetics, etc.):

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Sample Design Detail

Vessel Name: _____

How do fish flow from the codend to the point where you collect your sample?

Species Composition Samples

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

Describe each element of your sample design:

Typical (low bycatch) haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Subsampling for two predominant species:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

High bycatch haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Did you census for species composition? Y N

Hake average weights / Flowscale-MCP weight test:

What is your method for collecting hake average weights / conducting the Flowscale-MCP test?

How are you accounting for potential incline belt bias (e.g. live tank doors closed before and after sample)?

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Sex/Length Samples:

For HAKE:

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

For NON-HAKE SPECIES:

What is the population of fish from which you are sampling? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

If you use more than one method for selecting non-hake sex/lengths, describe them below.

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Biopecimen Samples (ages, genetics, etc.):

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Sample Design Detail

Vessel Name: _____

How do fish flow from the codend to the point where you collect your sample?

Species Composition Samples

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

Describe each element of your sample design:

Typical (low bycatch) haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Subsampling for two predominant species:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

High bycatch haul:

How are you randomly selecting your sample(s) from the population? _____

What units are you using? _____

What is your sampling method? _____

Did you census for species composition? Y N

Hake average weights / Flowscale-MCP weight test:

What is your method for collecting hake average weights / conducting the Flowscale-MCP test?

How are you accounting for potential incline belt bias (e.g. live tank doors closed before and after sample)?

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Sex/Length Samples:

For HAKE:

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

For NON-HAKE SPECIES:

What is the population of fish from which you are sampling? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

If you use more than one method for selecting non-hake sex/lengths, describe them below.

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

Which species? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Biopecimen Samples (ages, genetics, etc.):

What is the population of fish from which you are sampling? _____

How are you generating random numbers? _____

How are you randomly selecting your sample(s) from the population? _____

What is your sampling method? _____

What factors affected the collection of your random sample (e.g. sorting, limited access)? _____

Observer Sampling Record (optional)

Vessel Name: _____

Haul#	Sample half: (1st / 2nd)	Hake Otoliths Haul (Y / N)	Bycatch Otoliths (list species)	Specimens (list specimens)

Observer Sampling Record (optional)

Vessel Name: _____

Haul#	Sample half: (1st / 2nd)	Hake Otoliths Haul (Y / N)	Bycatch Otoliths (list species)	Specimens (list specimens)

Observer Sampling Record (optional)

Vessel Name: _____

Haul#	Sample half: (1st / 2nd)	Hake Otoliths Haul (Y / N)	Bycatch Otoliths (list species)	Specimens (list specimens)

Daily Notes

Use the following pages to record the day to day events that occur throughout your deployment. Your entries should start on the day you are first deployed and end after you leave your assignment to debrief.

The importance of documentation cannot be stressed enough. Recording each incident is preferable to trying to reconstruct events from memory months later. Making timely entries enhances the overall quality of your data and will greatly ease your debriefing process by making your cruise self-explanatory.

All daily notes entries must be made in ink!

At the start of your deployment:

- Record embark date, time, and location.
- List key crew members (captain, factory manager, deck boss, etc.). *Tip:* Ask for a crew roster.
- Record information regarding the safety orientation and drills.
- Document plans regarding working with your observer partner (safety plan, shifts, data entry/checking, etc.)

Daily entries should be made at least once per day and include:

- date for every entry and times, if you make more than one entry per day
- information regarding your sampling efforts and data collection - include haul numbers and any problems you may have encountered
- specific notes on problems that occur while you are aboard the vessel
- any illnesses or injuries you suffer
- details regarding your safety orientation(s) and all safety drills
- sampling methods you choose for catch estimation, species composition sampling, length and specimen collections, halibut viability/injury assessments, as well as any other data collections completed
- non-fishing days and unassigned days, including days in town between fishing trips
- details regarding potential violations

At the end of your deployment:

- Record disembark date, time, and location.

Additional sampling information that should be included for each deployment:

- Detailed explanation on any missed hauls
- Detailed explanation of changes to your sampling (e.g. ran out of space to store bycatch)
- All sample designs attempted and all changes to a design

Enforcement issues / any type of potential violation

Your daily notes entries should also be used to record the circumstances surrounding any potential violations you witness including:

- interference with your duties
- harassment
- marine casualties
- mishandling of prohibited species
- harassing or harming marine mammals or seabirds
- MARPOL (marine pollution) concerns

These pages should be used to document any problems you encounter and the actions taken by you or vessel personnel. Document crew member's names, their position or title, dates, locations, and the details of the incident or conversation. Remember to include "who, what, when, where, and why."

If an event seems significant only in hindsight, record the details on the day on which you document it. Include the current date and the date of the event. For example, "July 17, 2015 - Three days ago, on July 14th at about 3:00 pm, I was on the bridge when..."

Document all marine casualties. Marine casualties are: Fire, Flooding, Man Overboard, Grounding, Loss of Power, Loss of Steering, Crew Injury Beyond Regular First Aid, Lack of Safety Drills, Refrigerant Leaks.

Include the following with each entry:

- Vessel location, date, and time
- Captain's name
- Where did the incident occur
- Cause of the event
- Injuries
- Action taken by the vessel
- Crew involved
- Was a MAYDAY issued?
- Did the general alarm sound?
- Vessels involved
- Resolution

Daily Notes Examples:

Beginning of deployment:

Vessel Name McHakester

5/17/18 - Boarded the vessel at 2140. I'll be acting as lead observer with Julia Pescada as second. Crew threw lines and began steaming to grounds at 2315. Prior to leaving the dock, I completed my vessel safety checklist and participated in a safety drill for abandon ship (including donning my immersion suit). All looks good safety equipment wise. I checked the ATLAS system on the observer computer and sent a message to my inseason advisor. Got full crew roster from purser Dan deMan to help with daily notes.

5/18/18 - Still enroute to fishing grounds. Asked captain Mike McFisher if I could put one of the boat's immersion suits under the stairs that exit from the factory to the deck, since that's the way I'll exit from sampling if there is an emergency. He agreed and had the purser get a suit for me from the bow locker. Julia and I checked it over to make sure the seams were all good and waxed the zipper before stashing it under the stairs.

5/19/18 - Brought up the first net (haul 1) just before midnight on 5/18. A large salmon shark was in it, too large to go into the live tank. I measured the fork and natural length and decided to try to cut it up to weigh on the MCP. Worked pretty well with a deckhand helping. I recorded it on my decksheet as a presorted sample with a count of 1 and the weights from all the pieces. In the wheelhouse, I summed the pieces to get a total weight for the shark and added that to the final flowscale weight to get my observer estimate and to the discard weight. I didn't see any other sharks in the haul. I sampled hauls 2, 3(hake otolith haul) and 4, and details on my sample design is on page 74.

5/20/18 - Rough weather today. The crew tested the flowscale 3 times before it passed. Factory manager Jack Mackerel said the rough weather messed with the scale calibration. I sent an ATLAS message to let my inseason advisor know that the scale had to re-tested twice.

Mid-deployment example 1:

6/1/18 - Received my mid-cruise questions this morning and sent answers off after I entered my data for the day.

6/2/18 - Went through otoliths we've collected thus far to make sure they're all correctly labeled with species and haul and bundled groups of hauls together in each species bag.

Mid-deployment example 2:

6/3/18 - All is pretty routine. Sampled hauls 291, 292, and 293. Got a yelloweye rockfish in haul 293 so I collected the whole specimen for training.

6/4/18 - Sampled hauls 296, 297, and 298. Seeing quite a bit of dogfish so I've been using large (1MT) subsamples, taken systematically throughout my sample. The bin operator Jorge Eglesias is pretty helpful about stopping the belts and helping lift baskets when I need it.

6/5/18 - When I went to my sampling station, I discovered someone had taken my clipboard with my Deck Forms and pencil out of my basket. I had to look around for it for awhile and it delayed my sampling start time by 20 minutes! It turns out one of the crew, Tom Foolery, was playing a joke on me. I talked to the captain about it and he assured me he would emphasize to the crew that they can't touch my sampling equipment. I will need to discuss this with my debriefer to see if I need to write a statement about this.

End of deployment:

6/12/18 - Steaming into port and I will be disembarking to go debrief. Let my contractor know that we are done and expected to hit the dock tomorrow afternoon. Used the Disembark Checklist to make sure we don't forget anything before we disembark. Julia and I checked our data one last time before archiving it. Sent a text message to A-SHOP to let them know we were done and would be at NMFS tomorrow afternoon to drop off specimens and data. Used the boat's pressure washer to wash my sampling gear so hopefully won't have to do too much cleaning back in the lab. I put a big note to myself on the door so that I remember to grab the fish and specimens from the freezer.

6/13/18 - Disembarked! Gonna grab a cab to NMFS to drop off frozen fish and turn in data.

Vessel Name _____

Vessel Name _____

Vessel Name _____

Vessel Name _____

26 horizontal lines for data entry

Vessel Name _____

A series of horizontal lines for writing.

Vessel Name _____

Lined area for notes, consisting of 25 horizontal lines.

Vessel Name _____

Lined area for text entry.

Vessel Name _____

Lined area for notes or details, consisting of approximately 22 horizontal lines.

Vessel Name _____

Vessel Name _____

A series of horizontal lines for writing, consisting of 25 lines.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Fisheries Science Center
2725 Montlake Boulevard East
Seattle, WA 98112-2097

To Whom It May Concern:

The certified At-Sea Hake Observer bearing this letter has permission from NOAA Fisheries to collect fish and invertebrates, including species that the vessel is prohibited from retaining. These species include: Pacific halibut, Dungeness crab, and all salmonid species. All fish collected are for identification, verification, or teaching purposes for the at-sea hake briefing. Fish will be frozen whole, tagged and each bag or box labeled "observer specimen collection" and returned to the At-Sea Hake Observer Program, Seattle, Washington.

Any questions about this collection should be directed to the At-Sea Hake Observer Program: Vanessa Tuttle, (206) 860-3479 or Vanessa.Tuttle@noaa.gov. This authorization expires December 31, 2020.

Sincerely,

A handwritten signature in black ink that reads "Jon T. McVeigh".

Jon T. McVeigh
Program Manager
At-Sea Hake Observer Program



**Permit Number: MB40092B-0**

Effective: 04/01/2017 Expires: 03/31/2020

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Migratory Bird Permit Office
911 NE 11th Ave.
Portland, OR 97232
Tel: 503-872-2715 Fax: 503-231-2019

LESLIE HENRY Digitally signed by LESLIE HENRY
Date: 2017.03.23 13:38:30 -07'00'
POSSESSION PERMIT SPEC., MIGRATORY BIRD PERMIT OFFICE - REGION 1

Permittee:

**NORTHWEST FISHERIES SCIENCE CENTER
dba NATIONAL MARINE FISHERIES SERVICE
2725 MOUNTLAKE BOULEVARD EAST
SEATTLE, WA 98112
U.S.A.**

Name and Title of Principal Officer:

THOMAS P. GOOD - RESEARCH FISHERY BIOLOGIST

Authority: Statutes and Regulations: 16 USC 703-712; 50 CFR PART 13, 50 CFR 21.27, 50 CFR 21.21.

Location where authorized activity may be conducted:

Salvage authority: Federal waters off the coasts of Washington, Oregon, and California.

Records maintained at Physical Location listed above; Specimens will be transferred to the necropsy labs listed in section D, below.

Import authority: Any port designated under 50 CFR 14.12

Reporting requirements:**Annual Reports:** Due January 31.**Forms are available at:** <http://www.fws.gov/forms/3-202-3.pdf>**Education Permit Exemption:** See 50 CFR 21.12(b)(1) for record keeping requirements**Conditions and Authorizations:**

- A. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.
- B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.
- C. Valid for use by permittee named above.
- D. Authorized to salvage migratory birds found dead in which the permittee had no part in killing. Any endangered or threatened species must be turned over to the U.S. Fish and Wildlife Service within 48 hours of collection or return to port. Any dead bald eagle or golden eagle salvaged must be reported within 48 hours to the National Eagle Repository at (303) 287-2110 and to the issuing migratory bird permit office at permitsR1MB@fws.gov. The Repository will provide directions for shipment of these specimens.

For a list of threatened and endangered species in your state, visit the U.S. Fish and Wildlife Service's Threatened and Endangered Species System (TESS) at: <http://www.fws.gov/angered>.

Must have current state permit for collection in territorial sea. Birds may be necropsied at Oikonos, Santa Cruz, CA or the Marine Wildlife Veterinary Care and Research Center, Santa Cruz, CA.

E. You may not salvage and must immediately report to the U.S. Fish and Wildlife Service Office of Law Enforcement any dead or injured migratory birds that you encounter that appear to have been poisoned, shot, electrocuted, have collided with industrial power generation equipment, or were otherwise injured as the result of potential criminal activity. See USFWS OLE contact information below.

F. You are also authorized to import and export migratory birds salvaged under this permit. Additional authorization is required to import and export bald eagles, golden eagles, threatened and endangered species, and species listed under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).



Permit Number: MB40092B-0

Effective: 04/01/2017 Expires: 03/31/2020

G. All wildlife must be imported and exported through a wildlife designated port of entry/exit unless you have obtained a separate exception to designated port permit from the USFWS Office of Law Enforcement.

H. You must notify the USFWS Wildlife Inspector at the port of import or export **up to 3 days prior to import or export**. See the attached Standard Conditions for Migratory Bird Import/Export Permits for procedures specific to your activity.

I. You must declare your specimens to USFWS using USFWS Declaration for Importation or Exportation of Fish or Wildlife (Form 3-177; <http://www.fws.gov/le/ImpExp/faqs.htm>).

J. Within 10 days after import or export, you must furnish your permit issuing office with a completed form 3-177, Declaration of Importation or Exportation of Fish and Wildlife.

K. **Subpermittees: Employees of observer-providing companies:** Northwest Observers, Inc.; Alaskan Observers, Inc.; Tech Sea International, Inc.; MRAG Americas, Inc.; Employees of the National Marine Fisheries Service, Northwest Fisheries Science Center; and employees of University of Washington.

Any person who is

- (1) employed by or under contract to you for the activities specified in this permit, or
- (2) otherwise designated a subpermittee by you in writing, may exercise the authority of this permit.

L. You and any subpermittees must comply with the attached Standard Conditions for Special Purpose Salvage Permits and Standard Conditions for Migratory Bird Import/Export Permits. **These standard conditions are a continuation of your permit conditions and must remain with your permit.**

For suspected illegal activity, immediately contact USFWS Law Enforcement at: 425-883-8122

A list of all USFWS wildlife inspection offices is available on-line at http://www.fws.gov/le/ImpExp/Contact_Info_Ports.htm



Standard Conditions Special Purpose - Salvage Permits 50 CFR 21.27

All of the provisions and conditions of the governing regulations at 50 CFR part 13 and 50 CFR 21.27 are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. The standard conditions below are a continuation of your permit conditions and must remain with your permit. If you have any questions regarding these conditions, refer to the regulations or, if necessary, contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: <http://www.fws.gov/migratorybirds/mbpermits.html>.

1. This permit does not authorize personal use of any migratory bird(s) salvaged under the authority of this permit.
2. You must tag each migratory bird specimen you collect or salvage. Each tag must include
 - (a) the date and location where the specimen was collected or salvaged, and
 - (b) the name of the person who collected or salvaged the the specimen.The permit number under which the specimen was collected or salvaged must be recorded in the permanent accession record.
3. All migratory birds salvaged under this permit must be deposited with the repository designated on the face of this permit within six (6) months of acquisition and/or by December 31 of that calendar year.
4. Salvaged migratory birds, including parts, nests, and nonviable eggs unsuitable for donation must be completely destroyed by burial or incineration.
5. If you encounter a migratory bird with a Federal band issued by the U.S. Geological Survey Bird Banding Laboratory, Laurel, MD, report the band number to 1-800-327-BAND or www.reportband.gov.
6. This permit does not authorize salvage of specimens on Federal lands without additional prior written authorization from the applicable Federal agency, or on State lands or other public or private property without prior written permission or permits from the landowner or custodian.
7. A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. Subpermittees must be at least 18 years of age. As the permittee, you are legally responsible for ensuring that your subpermittees are adequately trained and adhere to the terms of your permit. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of designation letters you have provided. Other individuals, including those under the age of 18, may conduct the permitted activities only if you or a designated subpermittee are present.
8. You and any subpermittees must carry a legible copy of this permit and display it upon request when exercising its authority. Subpermittees must also carry your written subpermittee designation letter.
9. You must maintain records as required by 50 CFR 13.46 and 50 CFR 21.27. All records relating to the permitted activities must be kept at the location indicated in writing by you to the migratory bird permit issuing office.
10. Acceptance of this permit authorizes the U.S. Fish and Wildlife Service to inspect any wildlife held, and to audit or copy any permits, books, or records required to be kept by the permit and governing regulations.
11. You may not conduct the activities authorized by this permit if doing so would violate the laws of the applicable State, county, municipal or tribal government or any other applicable law.

(SPSL - 12/3/2011)



Standard Conditions Migratory Bird Import/Export Permits 50 CFR 21.21

All of the provisions and conditions of the governing regulations at 50 CFR Parts 13 and 14, and 50 CFR 21.21 are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. The standard conditions below are a continuation of your permit conditions and must remain with your permit. If you have any questions regarding these conditions, refer to the regulations or contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: <http://www.fws.gov/migratorybirds/mbpermits.html>.

1. This permit does not authorize import or export of bald eagles or golden eagles, species listed as threatened or endangered under the Endangered Species Act (50 CFR 17), or species that require a U.S. import or export permit under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). For more information, visit <http://www.fws.gov/permits/overview/overview.html>.
2. Shipment of live migratory birds must comply with Humane Transport Standards in 50 CFR 14, Subpart J.
3. The container in which the migratory bird item(s) are shipped must be plainly marked with the following information: (a) name and address of the person the shipment is going to; (b) name and address of the person the shipment is coming from; (c) an accurate list of contents by species, and (d) number of each species.
4. You must attach a copy of this permit to the Declaration for Importation or Exportation of Fish and Wildlife (Form 3-177) and submit it to the U.S. Fish and Wildlife Service/Customs upon entry/exit.
5. A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. Subpermittees must be at least 18 years of age. As the permittee, you are legally responsible for ensuring that your subpermittees are adequately trained and adhere to the terms of your permit. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of designation letters you have provided.
6. You and any subpermittees must carry a legible copy of this permit and display it upon request when exercising its authority. Subpermittees must also carry your written subpermittee designation letter.
7. You must maintain records as required in 50 CFR 13.46 and 50 CFR 14.62 (c) or (d). All records relating to the permitted activities must be kept at the location indicated in writing by you to the migratory bird permit issuing office. Records must document: (a) the date of shipment; (b) port of entry/exit; (c) method of shipment; (d) country of origin, and (e) the scientific and common name and number of each species of migratory bird shipped.
8. Acceptance of this permit authorizes the Fish and Wildlife Service to inspect any wildlife held, and to audit or copy any permits, books, or records required to be kept by the permit and governing regulations.
9. You may not conduct the activities authorized by this permit if doing so would violate the laws of the applicable State, county, municipal or tribal government or any other applicable law.
10. The following procedures apply to migratory bird imports/exports (50 CFR 14 Subparts E & F), unless you have obtained a separate exception to designated port permit from the USFWS Office of Law Enforcement.
 - (a) **All exports:**
All migratory birds must be exported through a designated port of entry. **At least 48 hours prior to your export**, you must notify the wildlife inspection office at the intended port of entry of your intended arrival to arrange for an inspection. You must declare your specimens on USFWS Form 3-177

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(<http://www.fws.gov/le/ImpExp/faqs.htm>) at the time of export to USFWS wildlife inspectors or Customs officers on USFWS' behalf. Customs may detain your specimens or require a formal USFWS clearance.

(b) Import accompanying baggage language:

If you plan to import dead, nonperishable specimens in your accompanying or checked baggage, you must arrive at a designated port of entry during normal business hours, Monday-Friday, and not on Federal holidays. If you plan to arrive outside normal business hours, on a weekend or a Federal holiday, you must arrange in advance for a USFWS Wildlife Inspector to be present and must be willing to pay the overtime fees for this service. To arrange for overtime service, contact the Wildlife Inspection office at your port of entry (http://www.fws.gov/le/ImpExp/Contact_Info_Ports.htm).

If you plan to import live or perishable specimens in your accompanying or checked baggage, you must arrive at a designated port of entry during normal business hours, Monday-Friday, and not on Federal holidays. **At least 24 hours prior to your arrival**, you must notify the wildlife inspection office at the intended port of entry of your intended arrival to arrange for an inspection. If you plan to arrive outside normal business hours, on a weekend or a Federal holiday, you must also arrange in advance for a USFWS Wildlife Inspector to be present and must be willing to pay the overtime fees for this service. To provide prior notification or to arrange for overtime service, contact the Wildlife Inspection office at your intended port of entry (http://www.fws.gov/le/ImpExp/Contact_Info_Ports.htm).

You must declare your specimens on the Customs passenger declaration form and indicate you have items subject to U.S. Fish and Wildlife requirements. In addition, you must declare your specimens on USFWS Form 3-177 (<http://www.fws.gov/le/ImpExp/faqs.htm>) at the time of import to USFWS wildlife inspectors or Customs officers on USFWS' behalf. Customs may detain your specimens or require a formal entry for USFWS clearance.

(c) Import via air, ocean, truck or rail cargo, including express mail companies:

If you plan to import dead, nonperishable specimens via cargo, including express mail companies, your shipment must be imported at a designated port of entry (some cargo shipments may move under customs bond to a designated port for entry and clearance procedures). You must declare your specimens to USFWS using Form 3-177 (<http://www.fws.gov/le/ImpExp/faqs.htm>). USFWS does not require you to have a broker to declare your specimens; however, express mail companies such as Fed-Ex, UPS or DHL will generally declare your specimens to USFWS on your behalf as part of their process. You will be required to pay a protected species premium fee with your declaration. Your declaration will be processed during normal business hours, Monday-Friday. Contact information for wildlife inspection offices can be found at: http://www.fws.gov/le/ImpExp/Contact_Info_Ports.htm.

If you plan to import live or perishable specimens via cargo, including express mail companies, your shipment must be imported at a designated port of entry (some cargo shipments may move under customs bond to a designated port for entry and clearance procedures). You must notify the USFWS wildlife inspection office at the port of entry **at least 48 hours in advance of the import**. You must declare your specimens to USFWS using Form 3-177 (<http://www.fws.gov/le/ImpExp/faqs.htm>). USFWS does not require you to have a broker to declare your specimens; however, express mail companies such as Fed-Ex, UPS or DHL generally declare your specimens to USFWS on your behalf as part of their process. If your shipment arrives outside normal business hours, on a weekend or a Federal holiday, and your shipment cannot be appropriately maintained at the warehouse until normal business hours, you will need to arrange for an overtime inspection and pay overtime fees. For all shipments, you will be required to pay a protected species premium fee with your declaration. You will also be required to pay a live premium fee for any live specimens. Contact information for wildlife inspection offices can be found at: http://www.fws.gov/le/ImpExp/Contact_Info_Ports.htm

(d) Import via international postal mail:

If you plan to import dead, nonperishable specimens via the international postal mail, you must label the package to indicate that USFWS clearance is required. You should enclose a USFWS Form 3-177 (<http://www.fws.gov/le/ImpExp/faqs.htm>) that completely identifies the specimens in the package along with a copy of this permit. If you receive your mail package without any indication on the package that USFWS has cleared the shipment, do not open the package and immediately notify your closest wildlife inspection office. Contact information for wildlife inspection offices can be found at: www.fws.gov/le/ImpExp/Contact_Info_Ports.htm