OMB Control No. 0648-0318

Revised: 10/04/2024 Expiration Date: 09/30/2027

### 2025

# Alaska Pollock Trawl Catcher Vessel Electronic Monitoring (EM) **Vessel Monitoring Plan (VMP) for Catcher** Vessels

Your vessel is in the trawl EM category for 2025. You must fully comply with all the provisions of this VMP and all trawl EM category requirements as specified in the final rule (89 FR 60796). If you have failed to comply with the requirements in this VMP or other elements of the trawl EM category, you may be disapproved from future participation in the program

#### Submit VMP or make changes to VMP

Sustainable Fisheries PO Box 21668 Juneau, AK 99802 nmfs.akr.vmp@noaa.gov

#### **Enforcement Questions**

Phillip Null Supervisory Enforcement Officer NOAA/NMFS OLE Kodiak Field Office 1211 Gibson Cove Rd Kodiak, AK 99615 phillip.null@noaa.gov (907) 486-3298

#### **Trawl EM Category Questions**

Joel Kraski Sustainable Fisheries 222 West 7th Ave, Suite 552 Anchorage, AK 99513 joel.kraski@noaa.gov

## **Observer Declare and Deploy System (ODDS)**

For assistance logging trips, ODDS can be reached online at https://www.fisheries.noaa.gov/resource/tool-app/observer-deploy-and-declare-system-odds or through the call center at 1-855-747-6377.

#### **EM Service Provider Contacts**

[To be completed by the EM service provider. List EM service provider contact information, including but not limited to: office address, office phone numbers, and Field Manager email and cell phone.]

## **Vessel Info and Contacts**

Vessel Name :	
At-sea Vessel phone : (Satellite, cell)	
At-sea Vessel email (if any)	:
ADFG Vessel permit	
Home port	:
Primary landing port(s)	
Management Area(s):	CV Bering Sea Only CV GOA Only CV Bering Sea and GOA
Hard Drive Submission Frequency:	First and second EM trip Up to 5 trips
Vessel Owner or Designated Representative Name	:
Mailing Address	:
Email	:
Phone number(s)	:
Vessel Operator 1 Name	:
Email	:
Phone number(s)	:
Vessel Operator 2 Name	:
Email	:
Phone number(s)	:

### **Reminders:**

Non-fishing activities occurring on deck may be seen by an EM reviewer.

It is prohibited to assault, impede, intimidate, harass, sexually harass, bribe, or interfere with an EM service provider.

EM service provider means any person, including their employees or agents, that NMFS contracts with to provide EM services, or to review, interpret, or analyze EM data, as required under § 679.51(f) and (g).

## **Vessel Operator Responsibilities**

For each trip you must comply with the operator responsibilities listed below and in *Appendix B – Guide for Vessel Operator*.

## **Prior to Trip**

- ✓ **Daily Tests:** The vessel operator must complete daily tests of equipment functionality as instructed in this VMP. The vessel operator must verify <u>all cameras</u> are recording and <u>all sensors</u> and other required EM system components are functioning as instructed in this VMP.
- ✓ **Confirm Hard Drive Storage Space:** Ensure that the system has enough storage to record the entire trip.
- ✓ ODDS (GOA CVs only): log your trip in ODDS by selecting a trawl EM trip and indicating whether you will deliver to a tender. All pelagic pollock trips are subject to EM coverage.
  - You must indicate whether you intend to deploy nonpelagic gear during your fishing trip.
     Trips where nonpelagic gear will be deployed are subject to observer coverage rates.
  - If you log a tender delivery, you must deliver all catch to a participating trawl EM category tender; otherwise, you must deliver all catch to a participating trawl EM category shoreside processor.
  - For assistance logging trips, ODDS can be reached online at <a href="https://www.fisheries.noaa.gov/resource/tool-app/observer-deploy-and-declare-system-odds">https://www.fisheries.noaa.gov/resource/tool-app/observer-deploy-and-declare-system-odds</a> or through the call center at 1-855-747-6377.

## **During Each Trip**

- ✓ **Power**: Maintain uninterrupted power to the EM unit while the vessel is underway.
- ✓ Maintain Equipment: Make certain that EM system components are not tampered with, disabled, destroyed, or operated or maintained improperly unless directed to make changes by NMFS, the EM service provider, or as directed in the troubleshooting guide of the VMP.

## **Each Day**

- ✓ Logbook:
  - You are required to complete a NMFS trawl logbook (per regulations § 679.5(c)).
  - Record all at-sea discards by species and weight (except for jellyfish). Note whether these discards are in pounds or metric tons.
    - If discard is a large individual marine organism (including skates), record for each species:
      - the estimated weight;
      - number of organisms;
      - If the discard is a Salmon shark or Pacific Sleeper shark, record for each species, the measured pre-caudal length; and

- weight from the length/weight table provided in *Appendix D and E* (or an estimate if shark species is not Pacific sleeper shark or salmon shark).
- If the discard is jellyfish, you do not need to record the weight, but you should still record that you discarded jellyfish.
- o In the comments section note:
  - List the reason(s) for each discard event;
  - EM malfunctions encountered during the trip;
  - All third wire bird strikes or bird captures;
  - All marine mammal captures or interactions;
  - Codend capacity (note whether it is in lbs or metric tons).
- You are required to submit the blue discard sheet from the NMFS trawl logbook to the shoreside processor or tender at the time of offload so that discard information can be entered into eLandings or tLandings.

#### **Prior to Each Haul**

#### ✓ Verify System Is Running Correctly

- Verify that all cameras are recording and all sensors and other required EM system components are functioning.
- Check the monitor and verify that the camera views are consistent with the images provided in Appendix A - Vessel Installation Details.
- ✓ Clear Camera Views: Clean cameras to maintain video quality. Do NOT pressure wash cameras or network switch boxes. Make sure camera views are not blocked.

## Completion of Fishing activity in a Trip - Notice of Landing

#### ✓ All trawl EM category vessels

- Upon departing the fishing grounds for town, all trawl EM category vessels are required per § 679.51(g)(3)(vi) to communicate with the shoreside processor to specify:
  - Vessel name;
  - Management areas the vessel operated in;
  - Most precise estimate available of tonnage aboard the vessel;
  - Estimated deckload size, if present; and
  - Estimated time of arrival at the shoreside processor.
- Notices of Landing must be sent to nmfs.akr.VNOLA@noaa.gov as well as to your shoreside processor's provided email.
- Notices may also be sent via WhatsApp to the listed emails by clicking and holding the message and then selected "Forward". Click the "share" icon in the bottom right corner and enter the email address you want to forward the message to. See FAQ for further information.

## **Catch Handling Requirements**

✓ All catch and discards must be handled within view of the cameras as defined in the camera descriptions and deck diagram in *Appendix A - Vessel Installation Details*.

- ✓ Improved Retention: Catcher vessel operators must retain all catch except when doing so would compromise the safety and stability of the vessel (§ 679.7(j)(2)(i)(B)). For all fishing trips, catcher vessels are expected to avoid sorting and discarding catch to the greatest extent practicable.
  - The most common instances of discards at-sea are related to spillage events, discards needed for safety or stability, and large organisms that are challenging to accommodate aboard the vessel.
  - o Routine discards on the final haul of each trip **does not qualify** as avoiding the discard of catch.
  - Routinely overfishing the capacity of the vessel does not qualify as avoiding the discard of catch.
- ✓ Each Day you are required to record the species code, estimated weight, and the reason for discards in your logbook. For large marine organisms, also record the number of organisms discarded. For jellyfish, you do not need to estimate the weight or number.
- ✓ MRAs & Pollock Trip Limits: GOA catcher vessels in the trawl EM category are exempt from the GOA 300,000-pound pollock trip limit and MRA limits but must fish as though these limits still apply, as per the performance metrics outlined in the Trawl EM Incentive Plan Agreement (TEM IPA § 679.57).
- ✓ Marine mammals: Any incidental mortality or serious injury of marine mammals must be documented in your logbook and reported through the Marine Mammal Authorization Program. Forms for the Marine Mammal Authorization Program are mailed to most permit holders participating in Category II fisheries (Marine Mammal Protection Act List of Fisheries), but are also available online at: <a href="https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-authorization-program">https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-authorization-program</a>
  - All mortality and/or serious injury with marine mammals incidental to fishing activities needs to be reported, regardless of the category of the fishery under the MMAP List of Fisheries.
  - Incidental interactions include any action that results in an injury (as stated at 50 CFR 229.2) or the collection of an already deceased animal.
  - When reporting an interaction with a previously dead animal, please fill out the reporting form and use the notes section to specify that the animal was dead previous to fishing activities and give the reasons why this is apparent to you.
  - If you have questions about what to report or how to report, contact suzie.teerlink@noaa.gov or (907) 586-7240

#### ✓ Seabirds:

 Mortalities and interactions of all seabirds must be captured and could be from fishing gear, vessel strikes, or 3<sup>rd</sup> wire entanglements. Hold all seabirds in clear view of camera for 3 seconds to assist with identification.  Vessels must complete a Threatened and Endangered Bird Species Encounter Reporting Form (USFWS) when an encounter occurs for short-tailed albatross, spectacled eider, Steller's eider or other ESA-listed species while participating in the trawl EM category.

#### **Deliveries/Offloads**

- ✓ GOA CVs only: Complete your offload according to the disposition (tender vs shoreside) of your logged trip in ODDS:
  - o If you logged a tender trawl EM category trip in the ODDS, you must deliver all intended catch to a participating trawl EM category tender.
  - o Otherwise, you must deliver to a participating trawl EM category shoreside processor.

#### ✓ All CVs:

- You are required to communicate with participating processors and provide timely offload schedule information for all trawl EM category trips.
- All catch intended for offload must be offloaded at a single location.
- The EM System must remain on through the entire duration of the offload.
  - Verify that the EM system is on and recording prior to starting offload.
  - Document the date/time of the start of the offload in your logbook.
  - There cannot be any interruptions to the offload video.
  - In the event of a split offload, the EM system must remain on and recording until all catch is offloaded and the trip is complete.

## **After Each Trip**

- ✓ Check the remaining disk space on your hard drive. If there is not enough storage remaining for another trip, you must perform a hard drive exchange and submit your hard drive and logbook pages. Follow shipping instructions in Appendix B Guide for Vessel Operator.
- ✓ Close fishing trip in ODDS (GOA CVs only): Prior to logging another trip you must close the fishing trip in ODDS and enter the fish ticket number.

## **Data Submission Requirements**

### CV trips ending at a shoreside processing plant

- ✓ Data submission for trawl EM category:
  - You must submit your hard drive and copies of all logbook pages from all the trips recorded on the hard drive when you meet any of these criteria:
    - You have completed up to the specified number of trips on your current hard drive,

- First and Second EM Trip vessels must submit their hard drive and logbook at the end of their first and second EM trips of the year for which the VMP is approved.
- <u>Up to 5 Trips</u> vessels that have met their first and second trip submission requirements, and are meeting performance expectations, may record up to 5 trips on the current hard drive, unless otherwise specified by NMFS.
- Your hard drive does not have enough room for another trip,
- You had an fishing interaction with a seabird or marine mammal
- You are done participating in the pollock fishery for the current season.
- o If you meet one of the criteria for hard drive submission (listed above), then the hard drives and logbooks must be submitted within 24 hrs of landing.
- Perform a hard drive exchange as described in Appendix B Guide for Vessel Operators
  and deliver the mailing envelope containing the hard drive to the appropriate contact for
  mailing.
  - Trawl EM category trips ending in ports with limited postal service: Notify OLE (using the contacts on first page of the VMP) to inform them of any expected delays.
  - You may be asked to submit the tracking information on the mailing envelope to OLE, see Appendix B – Guide for Vessel Operators.
- Pickup new logbooks and hard drives from processing plant as needed.
- Review your logbook for completion. If applicable, confirm that discards (including sharks or other large species) are recorded in your logbook.
- You must submit your logbook with your hard drive.
- Copies of the discard sheet in the logbook (aka the "blue sheet") must be submitted to the processors at the end of every trip.

✓ [To be completed by the EM service provider. List any other hard drive submission procedures including but not limited to: location and procedures for drive delivery and pick up of additional drives and mailing envelopes for each processing plant and location. Also, add in additional procedures if vessels are mailing their own drives. Please include instructions for sending the harddrive tracking information to the EM Service Provider and/or video reviewer, if desired.]

#### CV trips ending at a tender vessel

#### ✓ Data submission for all CVs ending at a tender vessel:

- You must submit your hard drive and copies of all logbook pages from all the trips recorded on the hard drive when you meet any of these criteria:
  - You have completed up to the specified number of trips
    - <u>First and Second EM Trip</u> vessels must submit their hard drive and logbook at the end of their first and second EM trips of the year for which the VMP is approved.
    - Up to 5 Trips vessels that have met their first and second trip submission requirements, and are meeting performance expectations, may record up to 5 trips on the current hard drive, unless otherwise specified by NMFS.
  - Your hard drive does not have enough room for another trip;
  - You had a fishing interaction with a seabird or a marine mammal;
  - You are done with your pollock fishery for the current season.
- o If you meet one of the criteria for hard drive submission (listed above), then the hard drives and logbooks must be submitted within 24 hrs of landing.
- Perform a hard drive exchange as described in Appendix B Guide for Vessel Operators and give the mailing envelope containing the hard drive and your logbook pages to tender vessel so it can be shipped to the appropriate contact for mailing
  - Trawl EM category trips ending in ports with limited postal service: Notify OLE to inform them of any expected delays.
  - You may be asked to submit the tracking information on the mailing envelope to your EM Service Provider and OLE, see Appendix B – Guide for Vessel Operators.
- Pickup new logbooks and hard drives from tender vessel, as needed.

[To be completed by the EM service provider. List any other hard drive submission procedures including but not limited to: location and procedures for drive delivery and pick up of additional drives and mailing envelopes for each processing plant and location. Also, add in additional procedures if vessels are mailing their own drives.]

### **System Malfunctions**

- ✓ **Reporting Malfunctions:** System malfunctions can occur at the dock, prior to departure, or while the vessel is at sea. All system malfunctions must be recorded in your logbook and reported as soon as possible to your EM hardware service provider.
- ✓ [To be completed by the EM service provider. List any expected procedures for vessels to report malfunctions including but not limited to: phone and email for vessels to contact and specific instructions for at-sea vs. dock; preference for how the vessels should report malfunctions.]
- ✓ **Malfunctions**: You must notify your EM hardware service provider of all malfunctions. If the issue cannot be resolved, you must contact OLE immediately. OLE will determine whether you may depart on a fishing trip, or if you must cease fishing.
  - o If a malfunction is detected prior to retrieving the haul, the vessel operator must attempt to correct the problem using the instructions in this VMP (§ 679.51(g)(4)(iii)(A)(1)).
  - o If the malfunction cannot be repaired at sea, the vessel operator must notify the EM hardware service provider of the malfunction at the end of the fishing trip. The malfunction must be repaired prior to departing on the next fishing trip in the trawl EM category (§ 679.51(g)(4)(iii)(A)(2)).
  - It is prohibited to depart on a fishing trip without a functional EM system, per this VMP, unless approved to do so by NMFS, after the procedures at § 679.51(g) have been followed (§ 679.7(j)(1)(vi)).
  - It is prohibited to fail to ensure an EM system is functional prior to departing on a fishing trip as specified at §§ 679.51(g)(3)(v) and 679.7(j)(1)(v).
  - It is prohibited to fail to follow procedures related to EM system malfunctions as described at § 679.51(g) prior to deploying each set of gear on a fishing trip selected for EM coverage (§ 679.7(j)(1)(vii)).

**Contacting OLE:** If an EM system malfunction occurs during a fishing trip in which the Malfunction Matrix directs that you must cease fishing and contact OLE, every effort should be made to contact OLE while at sea.

- You may contact OLE using a cell phone or satellite phone, or you may contact the U.S. Coast Guard via VHF or single side band radio to request the Coast Guard contact OLE.
- You may purchase additional equipment, such as cameras or control centers, at your own expense to reduce lost fishing time. This additional equipment and its purpose must be described in Appendix A -Vessel Installation Details.

# **Equipment Malfunction Matrix**

# **Equipment Malfunction Discovered in Port**

You must notify your EM hardware service provider of all malfunctions.

Malfunction Type	Potential Solution	Action if Malfunction Not Resolved
Monitor Down	Connect a different monitor	Attempt to resolve the issue following the troubleshooting guidelines listed in Appendix B – Guide for Vessel Operators. If you cannot resolve the issue, contact EM service provider immediately for additional troubleshooting options, or to arrange a technician service/repair before departing port on a trawl EM category fishing trip.
Insufficient Data	Replace with	Another hard drive must be obtained and initialized <b>before departing port on a trawl EM category fishing trip</b> .
Drive Space	spare hard drive	
Control Center	Restart system	Attempt to resolve the issue following the troubleshooting guidelines listed in Appendix B – Guide for Vessel Operators. If you cannot resolve the issue, contact EM service provider immediately for additional troubleshooting options, or to arrange a technician service/repair before departing port on a trawl EM fishing trip.
Insufficient Deck Lighting	Replace lights	May deploy gear but cannot retrieve gear at night.

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Critical Camera	Restart system; replace with spare camera	Refer to Appendix A – Vessel Installation Details to confirm that the camera is a critical camera. Attempt to resolve the issue following the troubleshooting guidelines listed in Appendix B – Guide for Vessel Operators. If you cannot resolve the issue, contact EM service provider immediately for additional troubleshooting options, or to arrange a technician service/repair before departing port on a trawl EM category fishing trip.
Non-critical Camera	Restart system; replace with spare camera	Refer to Appendix A – Vessel Installation Details to confirm that the camera is non-critical. Attempt to resolve the issue following the troubleshooting guidelines. If you cannot resolve the issue, contact EM service provider to arrange a technician service/repair. Repair must occur before departing port on a trawl EM category fishing trip.
GPS Down	Restart system	Attempt to resolve the issue following the troubleshooting guidelines. If you cannot resolve the issue, contact EM service provider to arrange a technician service/repair. Repair must occur before departing port on a trawl EM category fishing trip.
Hydraulic Sensor	Restart system replace with spare sensor	If you cannot resolve the issue, contact EM service provider to arrange a technician service/repair.  Repair must occur before departing on a trawl EM category fishing trip.
Keyboard/Mouse	Replace with another keyboard/mouse	If you cannot resolve the issue, contact EM service provider to arrange a technician service/repair.  Repair must occur before departing on a trawl EM category fishing trip.

# **Equipment Malfunction during fishing**

You must notify your EM hardware service provider of all malfunctions. If the issue cannot be resolved, you must contact OLE. OLE will determine whether you must cease fishing and return to port.

Malfunction Type	Potential Solution	Action if Malfunction Not Resolved
Monitor Down	Connect a different monitor	Troubleshoot and repair prior to next haul. If you cannot repair, you must contact the EM service provider to report issues/schedule repair. Repair must occur before departing on the next trawl EM category fishing trip.
GPS	Restart system	Troubleshoot and repair prior to next haul. If cannot you repair, you must contact the EM service provider to report issues/schedule repair. If unable to resolve, cease fishing and contact OLE.
Insufficient Storage	Replace with spare hard drive	Perform a data retrieval and swap hard drive with a new blank hard drive. If unable to resolve, cease fishing and contact OLE.
Control Center	Restart system	Troubleshoot and repair prior to next haul. If you cannot repair, you must contact the EM service provider to report issues/schedule repair. Repair must occur prior to departing on the next trawl EM category fishing trip.
Loss of Continuous Power during fishing or offloading	Check power supply to system	Troubleshoot and repair prior to next haul. If you cannot repair, you must contact the EM service provider to report issues/schedule repair. <b>If unable to resolve</b> , <b>cease fishing and contact OLE</b> .
Loss of Continuous Power while transiting	Check power supply to system	May continue to transit. Troubleshoot and repair prior to next haul or prior to offload. If you cannot repair, you must contact the EM service provider to report issues/schedule repair. If unable to resolve, cease fishing and call OLE.
Insufficient Lighting	Replace lights	May fish but cannot retrieve gear at night. Repair must occur prior to departing on the next trawl EM category fishing trip.
Critical Camera (views of deck, horizon, stern ramp, and factory [if applicable])	Restart system; replace with spare camera	Troubleshoot and repair prior to next haul. If you cannot repair, you must contact the EM service provider to report issues/schedule repair. Repair must occur prior to departing on the next trip. If unable to resolve, cease fishing and call OLE.
Non-critical Camera	Restart system; replace with spare camera	Attempt to repair prior to retrieving gear. If you cannot repair, you must contact the EM service provider to report issue/schedule repair. Repair must occur prior to departing on the next trawl EM category fishing trip.
Keyboard/Mouse	Replace with another keyboard/mouse	Before departing on another trip, must contact the EM service provider to get new keyboard or mouse. Repair must occur prior to departing on the next trawl EM category fishing trip.
Hydraulic Sensor	Restart system	Must trigger video recording manually. If you cannot repair, you must contact the EM service provider to schedule repair. If unable to resolve, cease fishing and call OLE.

## Appendix A – Vessel Installation Details

[To be completed by the EM service provider.]

- Include a description and diagram of the installation on the vessel including the number and location of cameras; definition of their use (e.g., deck views, horizon view, stern view, discard views, factory conveyor views); and whether each camera is Critical or Non-Critical (based on input from the EM reviewers).
- Deck Diagram photos to include the location of deck hatches, checker configurations/dimensions (where appropriate) and location of mid-water net reel locations
- Provide images of camera views. Work with NMFS and EM review service provider to label for reviewers.
- Describe the location of lighting, control center, GPS, sensors, monitor, and other EM equipment.
- List the frame rates, image resolution, frequency of logging, sensor trigger threshold values, and other EM system specifications.

## Vessel-specific handling protocols or instructions

• [List any special handling protocols that may apply to a vessel, including description and diagrams of discard control points, specific procedures for sorting discards (if applicable), and steps that need to be taken to ensure all catch remains in camera view.]

## Appendix B - Guide for Vessel Operator

[To be completed by the EM service provider.]

## EM system user's guide

- [Provide EM system specific information including...
- Describe how to retrieve a hard drive, how to power up the system, how to do a function test, system, etc.
- Provide the detailed steps that will be taken to minimize the potential for EM system malfunctions
- Provide <u>troubleshooting guide</u> with steps if malfunctions occur.

## Appendix C - Signature Page

This certifies that the vessel owner/operator has been trained in the function and operation of the Electronic Monitoring (EM) system installed on the vessel and that the vessel owner/operator must comply with the components of this Vessel Monitoring Plan. A signed copy of this VMP, whether **downloaded** digital or printed, must be aboard at all times when the vessel is participating trawl EM category. Digital signatures are acceptable. You must provide a copy of your VMP to OLE, a NMFS-authorized officer, or other NMFS-authorized personnel **immediately upon request**.

Vessel owner/operator signature:
Signer's relationship to vessel (such as owner, operator, designated representative):
Date:
EM Service Provider signature:
Date:
NMFS signature:
Date:

# **Appendix D – Length to Weight Conversion for Pacific Sleeper Shark**

P P		9
PCL (ft in)	PCL (in)	WT (lbs)
2'0"		20
2'1"	25	21
2'2"		23
2'3"	27	25
2'4"		28
2'5"	29	31
2'6"		33
2'7"	31	35
2'8"		38
2'9"	33	40
2'10"		43
2'11"	35	47
3'0"		52
3'1"	37	55
3'2"		58
3'3"	39	62
3'4"		65
3'5"	41	69
3'6"		73
3'7"	43	79
3'8"		85
3'9"	45	90
3'10"		94
3'11"	47	99
4'0"		104
4'1"	49	109
4'2"		117
4'3"	51	126
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PCL (ft in)	PCL (in)	WT (lbs)
6'8"		429
6'9"	81	443
6'10"	82	456
6'11"	83	470
7'0"	84	484
7'1"	85	499
7'2"	86	521
7'3"	87	545
7'4"	88	560
7'5"	89	576
7'6"	90	593
7'7"	91	609
7'8"	92	626
7'9"	93	644
7'10"	94	671
7'11"	95	698
8'0"	96	717
8'1"	97	736
8'2"	98	755
8'3"	99	775
8'4"	100	795
8'5"	101	825
8'6"	102	857
8'7"	103	878
8'8"	104	900
8'9"	105	923
8'10"	106	945
8'11"	107	968

eeber 21	lark	
PCL (ft in)	PCL (in)	WT (lbs)
11'4"		1960
11'5"	137	2017
11'6"	138	2075
11'7"	139	2114
11'8"	140	2154
11'9"	141	2194
11'10"	142	2235
11'11"	143	2277
12'0"	144	2318
12'1"	145	2382
12'2"	146	2447
12'3"	147	2491
12'4"	148	2536
12'5"	149	2581
12'6"	150	2627
12'7"	151	2673
12'8"	152	2743
12'9"	153	2815
12'10"	154	2863
12'11"	155	2912
13'0"	156	2962
13'1"	157	3012
13'2"	158	3063
13'3"	159	3140
13'4"	160	3218
13'5"	161	3272
13'6"	162	3325
13'7"	163	3380

4'4"	52	131
4'5"	53	137
4'6"		143
4'7"	55	150
4'8"		156
4'9"	57	167
4'10"		177
4'11"	59	184
5'0"		192
5'1"	61	200
5'2"		208
5'3"	63	216
5'4"		224
5'5"	65	237
5'6"		251
5'7"	67	260
5'8"		270
5'9"	69	279
5'10"		289
5'11"	71	300
6'0"		315
6'1"	73	332
6'2"		343
6'3"	75	355
6'4"		366
6'5"	77	378
6'6"		391
6'7"	79	410

9'0"	108	1003
9'1"	109	1039
9'2"	110	1064
9'3"	111	1089
9'4"	112	1114
9'5"	113	1140
9'6"	114	1166
9'7"	115	1206
9'8"	116	1247
9'9"	117	1274
9'10"	118	1303
9'11"	119	1331
10'0"	120	1360
10'1"	121	1390
10'2"	122	1420
10'3"	123	1465
10'4"	124	1512
10'5"	125	1544
10'6"	126	1576
10'7"	127	1608
10'8"	128	1641
10'9"	129	1675
10'10"	130	1726
10'11"	131	1778
11'0"	132	1814
11'1"	133	1849
11'2"	134	1886
11'3"	135	1923
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13'8"	164	3434
13'9"	165	3490
13'10"	166	3574
13'11"	167	3660
14'0"	168	3718
14'1"	169	3777
14'2"	170	3836
14'3"	171	3896
14'4"	172	3956
14'5"	173	4017
14'6"	174	4111
14'7"	175	4205
14'8"	176	4269
14'9"	177	4333
14'10"	178	4398
14'11"	179	4464
15'0"	180	4530
15'1"	181	4631
15'2"	182	4733
15'3"	183	4803
15'4"	184	4872
15'5"	185	4943
15'6"	186	5014
15'7"	187	5086
15'8"	188	5195
15'9"	189	5306
15'10"	190	5381
15'11"	191	5456

# **Appendix E – Length to Weight Conversion for Salmon Shark**

PCL (ft in)	PCL (in)	WT (lbs)	
2'0"		13	
2'1"	25	15	
2'2"		17	
2'3"	27	18	
2'4"		20	
2'5"	29	23	
2'6"		25	
2'7"	31	28	
2'8"		30	
2'9"	33	33	
2'10"		36	
2'11"	35	39	
3'0"		42	
3'1"	37	46	
3'2"		49	
3'3"	39	53	
3'4"		57	
3'5"	41	61	
3'6"		65	
3'7"	43	70	
3'8"		76	
3'9"	45	81	
3'10"		86	
3'11"	47	91	
4'0"		97	
4'1"	49	102	
4'2"		108	
4'3"	51	115	
4'4"		121	

PCL (ft in)	PCL (in)	WT (lbs)
6'8"		418
6'9"	81	436
6'10"	82	451
6'11"	83	467
7'0"	84	483
7'1"	85	499
7'2"	86	516
7'3"	87	533
7'4"	88	551
7'5"	89	569
7'6"	90	587
7'7"	91	606
7'8"	92	625
7'9"	93	644
7'10"	94	668
7'11"	95	688
8'0"	96	709
8'1"	97	730
8'2"	98	752
8'3"	99	773
8'4"	100	796
8'5"	101	818
8'6"	102	842
8'7"	103	865
8'8"	104	889
8'9"	105	914
8'10"	106	938
8'11"	107	969
9'0"	108	995

4'5"	53	128	
4'6"	54	135	
4'7"	55	142	
4'8"	56	150	
4'9"	57	159	
4'10"	58	167	
4'11"	59	175	
5'0"	60	184	
5'1"	61	192	
5'2"	62	201	
5'3"	63	211	
5'4"	64	220	
5'5"	65	230	
5'6"	66	240	
5'7"	67	251	
5'8"	68	262	
5'9"	69	273	
5'10"	70	286	
5'11"	71	298	
6'0"	72	310	
6'1"	73	322	
6'2"	74	335	
6'3"	75	348	
6'4"	76	361	
6'5"	77	375	
6'6"	78	389	
6'7"	79	403	

9'2"       110       1048         9'3"       111       1075         9'4"       112       1102         9'5"       113       1131         9'6"       114       1159         9'7"       115       1188         9'8"       116       1218         9'9"       117       1248         9'10"       118       1278         9'11"       119       1309         10'0"       120       1347
9'4"       112       1102         9'5"       113       1131         9'6"       114       1159         9'7"       115       1188         9'8"       116       1218         9'9"       117       1248         9'10"       118       1278         9'11"       119       1309
9'5"       113       1131         9'6"       114       1159         9'7"       115       1188         9'8"       116       1218         9'9"       117       1248         9'10"       118       1278         9'11"       119       1309
9'6"       114       1159         9'7"       115       1188         9'8"       116       1218         9'9"       117       1248         9'10"       118       1278         9'11"       119       1309
9'7"     115     1188       9'8"     116     1218       9'9"     117     1248       9'10"     118     1278       9'11"     119     1309
9'8" 116 1218 9'9" 117 1248 9'10" 118 1278 9'11" 119 1309
9'9" 117 1248 9'10" 118 1278 9'11" 119 1309
9'10" 118 1278 9'11" 119 1309
9'11" 119 1309
10'0" 120 1347
10'1" 121 1379
10'2" 122 1411
10'3" 123 1444
10'4" 124 1477
10'5" 125 1511
10'6" 126 1546
10'7" 127 1581
10'8" 128 1616
10'9" 129 1652
10'10" 130 1689
10'11" 131 1733
11'0" 132 1771
11'1" 133 1809
11'2" 134 1848
11'3" 135 1887

#### PUBLIC REPORTING BURDEN STATEMENT

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0318. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately 48 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Responses to this information collection are required pursuant to 50 CFR part 679 and under section 402(a) of the Magnuson-Stevens Act (16 U.S.C. 1801, *et seq.*). Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to Assistant Regional Administrator, Sustainable Fisheries Division, NOAA National Marine Fisheries Service, P.O. Box 21688. Juneau, AK 99802-1668.

#### PRIVACY ACT STATEMENT

**Authority:** The collection of this information is authorized under the Magnuson Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801 *et seq*.

**Purpose:** NMFS uses information submitted in this VMP to determine whether the configuration of the EM system and associated equipment will meet the data collection and compliance objectives and purpose of the EM Program, including camera locations to cover all fishing activities, any sensors to detect fish activities, and any special catch handling requirements. The VMP also describes methods to troubleshoot the EM system and instructions for the vessel operator to ensure the EM system is functioning properly.

**Routine Uses:** The Department will use this information for compliance purposes and will not be shared with the public. Disclosure of this information is permitted under the Privacy Act of 1974 (5 U.S.C. Section 552a), to be shared within NMFS offices, in order to coordinate monitoring and management of sustainability of fisheries and protected resources, as well as with the applicable State or Regional Marine Fisheries Commissions and International Organizations. Disclosure of this information is also subject to all of the published routine uses as identified in the Privacy Act System of Records Notice COMMERCE/NOAA-6, Fishermen's Statistical Data.

**Disclosure:** Providing information in this VMP is required for vessels in the trawl EM category of the North Pacific Observer Program. Participation in the trawl EM category is voluntary; failure to provide complete and accurate information may result in disapproval of participation in the trawl EM category.