

## LONGLINE GEAR LOG

This log contains detailed questions about the gear fished. Generally one gear is used to describe gear within a single trip. Changes in item numbers used would not require a separate gear log, however a change in gear configuration (i.e. hook sizes or fishing location) and/or that **changes the target species** would require a separate gear log. Numeric values reflect an average from all hauls with the same string number.

Example: First two hauls use 18/0 circle hooks to target LCS described by string number 1. The next two hauls use 12/0 circle hooks to target reef fish. A second gear log would then be completed and numbered string number 2. The last haul uses a combination of these hooks targeting MIX (both LCS and reef fish). A third gear log would be completed and numbered string number 3. Record the appropriate string number in field #16 on each of the LONGLINE HAUL LOG sheets. Hauls 1-2=1 and Hauls 3-4=2 and Haul 5=3. However if 2 similar hook sizes are used to target same species NO new gear log is needed (i.e. 16/0 circled and 12/0 J hooks targeting LCS).

**If information is not available or unknown for any question except a "NO/YES" question, record a dash (-) in the field.**

## DEFINITIONS

**LONGLINE:** 600-1200 lb test monofilament nylon mainline ("string") with attached branch lines, "gangions", which have baited hooks on the free end.

**GANGION:** A 300-1200 lb test nylon monofilament attached to a mainline by a snap. A gangion may vary in length and have up to two swivels, one at the snap and another some distance above the hook. Fishers may refer to this as a "leader" but we do not.

**LEADER:** A section of mono or steel wire placed between a swivel and the hook. It reduces bite offs, makes hook replacement easier and helps to maintain the gangion length. Fishers may refer to this as a "tail".

**HIGHFLYER:** Marker that has some portion above the waterline, can be home made and is generally attached a float of some kind. Usually used to mark beginning and end of the mainline for bottom longlines, but can be used as reference points in the gear.

**ANCHOR (Field 7):** Mark Y ONLY if a real anchor is used. This does not include cinder blocks, buckets filled with concrete, or spare car parts.

## INSTRUCTIONS

### HEADER

#### 1. OBS/TRIP ID:

Record the three character observer/trip identifier. This should be used on all data forms and field notes for a single trip.

Example: LFH/001.

**2. VESSEL NAME:**

Record the name of the vessel. Care should be taken to record the correct spelling of the vessel's name. Do not use punctuation; hyphens, commas, or periods and data is entered in capital letters.

Example: MR ROGERS, SY KAI MAI, MISSYS DREAM

**3. VESSEL NUMBER:**

Record the six digit U.S. Coast Guard Documentation Number. This should be displayed prominently on the vessel. If the vessel does not have a Coast Guard Number, record the state registration number and include the two letter state abbreviation prefix. This is not the same as the NMFS or state fishing permit number.

Example: USCG documentation number -234567 or State registration number - FL2345XX

**4. DATE LANDED:**

Record the month, day and year when the **vessel arrives back in port**. This may not be the same day fish are unloaded and sold.

Example: 01/01/2003

**5. STRING NUMBER:**

Record the consecutive number assigned to each string as it is uniquely configured. Changes that result in a change in target species will necessitate a new number and new **LONGLINE GEAR LOG**. Each string will be assigned a number consecutively.

Example: First string fishing for shark= 1, the next string fishing for grouper= 2, the next string fishing for grouper= 2, the next string fishing for shx/grp=3, etc.

**GEAR INFORMATION**

**6. NUMBER OF HOOKS:**

Record the number of hooks set. **This is an average of all hauls with the same gear configuration.**

**7. ANCHOR USED:**

Indicate if an anchor was used, by writing Y or N.

\*Only record Y if this is an actual anchor.

**8. ANCHOR WEIGHT:**

Record an estimated total weight, to the nearest pound, of the anchor(s) used to hold the gear in place. This information can be obtained from the captain. If no real anchor was used or if the gear is tied directly to the vessel, enter "0".

**9. # HAULS:**

Record the number of hauls for that Observer/Trip Number for that string (gear type).

#### 10. CODES:

Color codes (01-09) are used to describe mainline and gangion colors. Material codes (01-03) are used to describe the types of lines used for mainline, gangions, and leaders.

#### 11. MAINLINE:

**COLOR:** Record the color of the main line, by writing the numerical code for that color (01-09). If more than one color is present assign the color a code of **07** (multi). Steel mainlines are given code **09** (other). Please describe all other colors in COMMENTS field.

**MATERIAL:** Record the material code (01-04). Please describe other materials in COMMENTS field.

**DIAMETER:** Record to the nearest tenth of a millimeter the diameter of the mainline. Use a pair of calipers or submit a labeled sample piece with your data. General ranges found are 3.0-4.2 mm.

**TEST:** Record the pound test or dry breaking strength of the main line. This information can be obtained from the captain and/or verified from a manufacturer label. General ranges found are 600-1200 lbs.

**NUMBER OF STRANDS:** Record the number of strands of material that make up the mainline. Nylon (monofilament) should be 1. 7x7 strand steel should be 49.

#### 12. FLOATS:

**TYPE USED:** Indicate whether a float type was used, by writing Y or N in the field. If "OTHER" is marked Y, please describe in the comments.

**NUMBER:** Record the number for each float type used. This is an **average of all hauls with the same gear configuration**. Please refer to the definitions at the beginning of the instructions for float types. Think of these as "float units". Example if 3 daubs are used together as 1 float (attachment point) count as 1 float. Do not count floats associated with high flyers or radio beacons.

#### 13. GANGIONS:

**COLOR:** Record the color code from field 10. Please record any "09" color in comments.

**MATERIAL:** Record the gangion material code from field 10. Again indicate "09" material in the comments field.

**DIAMETER:** Record to the nearest tenth of a millimeter the diameter of the gangions. General ranges found are 1.8-4.2 mm

**TEST:** Record the pound test or dry breaking strength of the gangions. General ranges found are 300-1200 lbs.

**AVG LENGTH:** Record to the **nearest foot** the average of the gangion lengths. You can account for up to two different lengths. Gangion length should not include the leader length. This is an average of all hauls with the same gear configuration.

**AVG NUMBER:** Record the number of gangions for each length used. This is an **average of all hauls with the same gear configuration.**

**DISTANCE BETWEEN:** Record the distance, in **whole feet**, between gangions. This is an **average of all hauls with the same gear configuration.** Use distance calculation sheet.

#### 14. **LEADERS:**

Indicate whether leaders are used between the gangion and the hook with Y or N.

**LEADER LENGTH:** Record the length of the leader to nearest inch. This is an average of all hauls with the same gear configuration.

**LEADER TEST:** Record the pound test or dry breaking strength of the leader. Generally this is the same as the gangion.

**LEADER MATERIAL:** Record the material code from Field 10. If '09' please indicate in the comments field.

#### 15. **SWIVELS:**

Indicate whether swivels are used on gangions with Y or N.

**NUMBER SWIVELS/ GANGION:** Record the number of swivels used per gangion. One is generally located at the snap and a second swivel will be located some distance above the hook between the gangion and the leader or attached to hook.

#### 16. **DROPLINES:**

Indicate whether droplines were used with Y or N. Droplines are generally attached to the mainline as reference points and have bullets or daubs at the surface.

**NUMBER OF DROPLINES:** Averaged for all hauls.

**DROPLINE AVG LENGTH:** Average length of all droplines used.

**DISTANCE BETWEEN:** Average distance between droplines.

## 17. HOOKS

**BRAND:** Record the hook brand name. You can account for up to three different hooks. This information can be obtained from the captain and/or verified from a manufacturer label or Hook Guide.

Example: Mustad, Eagle Claw, LGPN (Lundgren/Pittman)

**C OR J / MODEL:** Write in C for circle or J for hook type, and record the hook model or pattern number. You can account for up to three different hooks. **DO NOT** include LETTERS in this field. Example: 7698B=7698, L9015=9015, 9014CAT=9014

**SIZE:** Record the hook size. You can account for up to three different hooks. This information can be obtained from the captain and/or verified from a manufacturer label or Hook Guide.

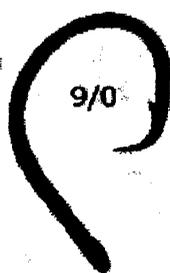
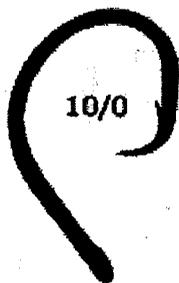
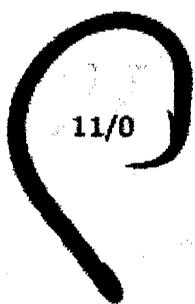
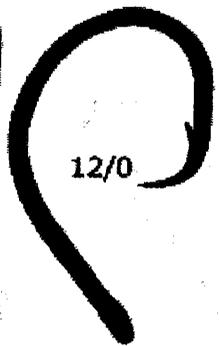
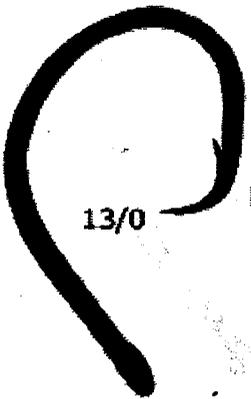
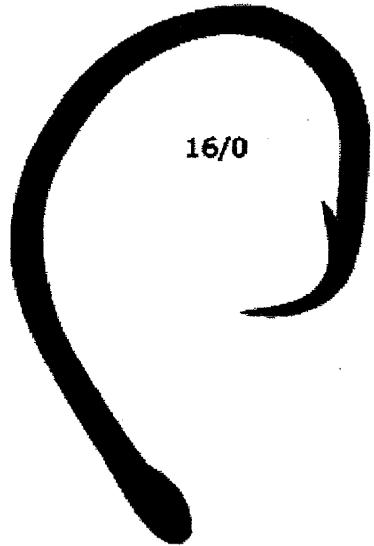
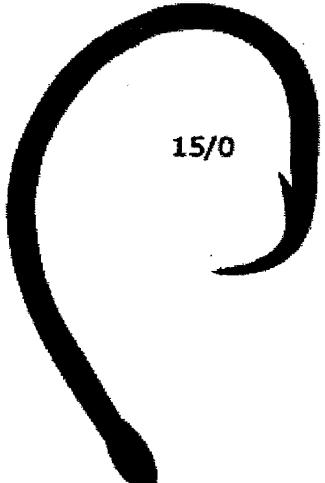
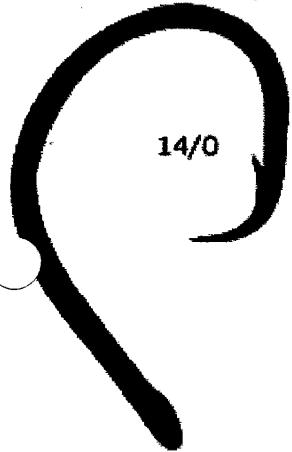
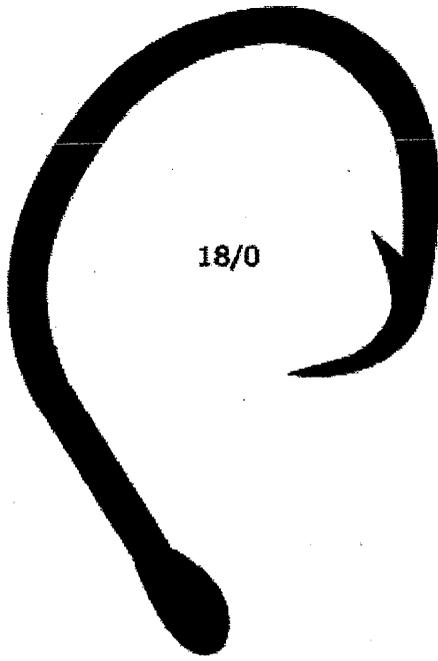
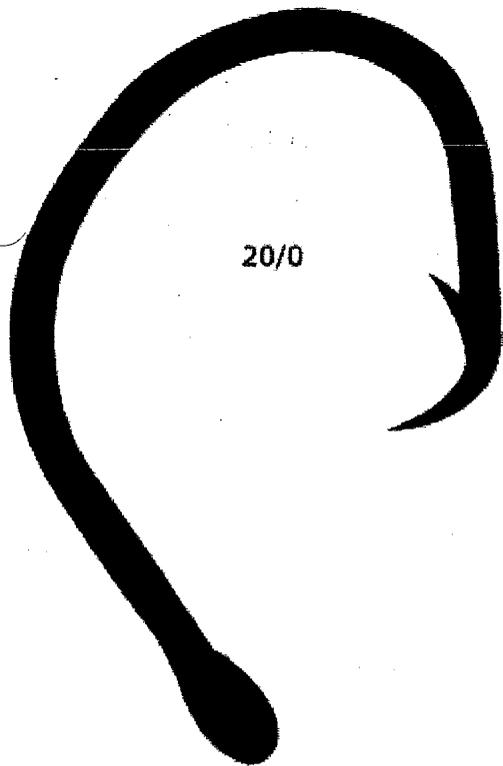
Example: 9/0 = nine aught

**OFFSET:** Y or N. Offset refers to the amount of deviation in the plane of the hook point relative to that of the shank. Hooks can be offset manually (by the fishermen) or by the manufacturer

**DEGREES OFFSET:** Record the degrees offset. This can be obtained from the label or the captain.

## 36. COMMENTS:

**Please reference each comment with its corresponding field number.** If more space is required, use the back of the sheet and include "see back" on the front. Feel free to make drawings or diagrams if the gear setup is unusual. We like comments, they will sometimes help avoid a phone call.



**Mustad 39960D-39965D-39965DT**

## **BOTTOM LONGLINE HAUL LOG**

This log is completed for each string of gear set and hauled. It reflects all the physical information relating to a single string fished: weather, water depth, hook depth, bait, target species, set/haul dates, times, position water temperature and calculated set, haul and soak durations. If you are unable to go on deck due to safety concern or illness, indicate this by recording an "N" in FIELD #8 HAUL OBSERVED? and record your reason in the COMMENTS section. The LONGLINE HAUL LOG will serve as a cover sheet and the INDIVIDUAL ANIMAL LOG/S will follow with all associated catch. If a string is hauled and there is absolutely no catch (a "water haul") indicate this on the LONGLINE HAUL LOG by recording an "N" in FIELD #9 CATCH?

## **INSTRUCTIONS**

### **HEADER**

#### **1. OBSERVER/TRIP IDENTIFIER:**

Record your assigned three character observer identifier + your three digit sequential trip number. This will be the unique trip number for all logs and field notes associated with a single trip. EXAMPLE: LFH/001

#### **2. VESSEL NAME:**

Record the name of the vessel you are deployed on. Care should be taken to record the correct spelling of the vessel's name. Do not use any punctuation; hyphens, commas or periods in vessel name fields.

EXAMPLE: MR ADVENTURE, SY KI MAI, MISSYS DREAM

#### **3. VESSEL NUMBER:**

Record the six or seven digit U.S. Coast Guard Documentation Number. If the vessel does not have a Coast Guard Number, record the state registration number and include the two letter state abbreviation prefix. This is not the same as the NMFS or state fishing permit number. EXAMPLE: USCG documentation number -234567 or State registration number - FL234567

#### **4. DATE LANDED:**

Record the month, day and year the **vessel arrives back in port**. This may not be same date the catch is unloaded. EXAMPLE: 01/01/2002

## **HAUL AND GEAR INFORMATION**

#### **5. HAUL #:**

Record the haul number each time a string is set/hauled. Start with 1 for the first haul and continue sequentially for all hauls made within in a single trip. If a line is cut during the set this should be treated as two separate sets and hauls, each having its own haul log and associated animal logs.

**6. GEAR CODE:**

Record the three digit TIP code for the gear fished during this haul.

Pelagic Longline = 675

Bottom Longline = 676

**7. PAGE NUMBER:**

Record the total number of pages used on this haul. The cover page for each haul will always be page 1 and any associated INDIVIDUAL ANIMAL LOG sheets, will start with page number 2.

**8. HAUL OBS?:**

Indicate whether the haul was or was not observed, with Y or N.

Note: An observed haul is defined as one where all of the catch hauled is recorded. An unobserved haul is defined as one where complete discard information is not collected.

**9. CATCH?:**

Record whether this haul has any associated catch, (recorded on INDIVIDUAL ANIMAL LOG) with Y or N.

**10. INC TAKE?:**

Indicate whether a marine mammal, sea bird or sea turtle was caught in this haul with Y or N. You must complete an INCIDENTAL TAKE LOG for all mammals or sea birds and complete a separate Turtle Life History Form for each sea turtle caught.

**11. WEATHER:**

Record the two digit code for the weather at the beginning of the haul.

01 -Clear

02 -Partly cloudy

03 -Continuous layer of clouds

04 -Drizzle

05 -Continuous Rain

06 -Intermittent Rain/Showers

07 -Thunderstorms with lightning

08 -Rain with fog

09 -Fog or thick haze

10 -Snow or rain and snow mixed

11 -Blowing snow

99 -Other, please describe in field #41 COMMENTS

**12. WIND**

**SPEED:** Record the **maximum** wind speed, in whole knots, at the beginning of the haul.

**DIRECTION:** Record the direction, **in compass degrees**, of the wind at the beginning of the haul. Wind coming from the northeast would be recorded 045. If

wind is light or wind direction is difficult to determine, record either "VAR" for variable wind or a dash "-" for undetermined.

**13. MAX WAVE HEIGHT:**

Record the **maximum** wave height, in **whole feet**, at the beginning of the haul. If the **wave is less than six inches, record 0.**

**14. REVERSE HAUL?:**

Indicate whether this was a reverse haul with Y or N. A reverse haul is when the last hook set is the first hook hauled.

**15. GEAR COND:**

Indicate the condition of the gear at the completion of the haul back by recording the most appropriate two digit code listed below.

- 60 = No gear damage with greater than 10% hooks lost
- 61 = No gear damage with less than or equal to 10% hooks lost
- 62 = Less than 50% fouled gear due to weather/oceanic conditions. Gear tangled, spun up or otherwise lowered gear fishability.
- 63 = More than 50% fouled gear due to weather/oceanic conditions. Gear tangled, spun up or otherwise lowered gear fishability.
- 66 = Parted off, gear recovered
- 67 = Parted off, gear not recovered
- 68 = Gear completely damaged or lost
- 69 = Split haul (portion of gear having additional soak time)
- 70 = Parted off, gear partially recovered
- 71 = Trip limit reached, gear left in water
- 99 = Other: Please specify other gear condition in field #41 COMMENTS

**16. STRING #:**

Record the string number that best describes the configuration fished in this haul. This number relates directly to the LONGLINE GEAR LOG string number. If there are multiple combinations of gear (more than two gangion lengths or three dropline lengths) or a change in target species, then an additional LONGLINE GEAR LOG will be completed and the appropriate string number entered.

**17. MAINLINE LENGTH:**

Record the length, to the **nearest tenth** of a nautical mile, of the main line for this set. Use available electronics or calculate using average set speed \* set duration.  
Note: 1 nautical mile = 6080 feet

**18. SET SPEED:**

Record the vessel's speed, to the **nearest tenth** of a knot, during the setting of gear. This may be an average speed obtained from available electronics or a calculated value from mainline length /set duration. You should be able to get this from your GPS unit (given in knots).

**19. BOTTOM DEPTH RANGE:**

Record to the **nearest fathom** the minimum and maximum depths over the bottom, which the gear fished for this haul. This can be taken from a chart or from available electronics. Note: 1 fathom = 6 feet

**20. TOTAL ADD. WEIGHT:**

Record to the **nearest pound** the total weight of additional line weights for this string **not including real anchors**. This is weight attached to the mainline and is not associated with radar reflectors, radio beacons, anchors or gangions/leaders.

**21. TARGET SPECIES ABBR:**

Record the primary species being targeted in this haul, using one of the following 3 character abbreviations: SHX (shark), GRP (grouper), SNP (snapper), TIL (tilefish) or MIX. This information is obtained from the captain **prior** to fishing activity. "MIX" may be used when there is overlap between these two defined criteria or multiple species are being targeted. **A change in target species will require an additional Gear Log and string number.**

**22. SOAK DURATION:**

Record the amount of time, to the **nearest tenth** of an hour, which all gear was in the water, defined as end set to begin haul time.

**23. GEAR USED**

Record whether each type of item listed is used on the gear in this haul with Y or N. \*Please record a zero for all "N".

**24. NUMBER OF HOOKS**

**SET:** Record the number of hooks used for this set.

**LOST:** Record the number of hooks lost. This should relate to field #15 GEAR CONDITION and may include "bite offs", "cut offs" and missing hooks.

**25. BAIT INFORMATION**

**NUMBER:** Record the number of individual baits used per hook (hook number should = bait number). You can account for up to five different baits.

\*note, record the larger number of bait kind used in bait #1

**LBS:** Record to the nearest pound the estimated total weight of bait used. You can account for up to five different baits.

**KIND:** Record the two digit code that identifies the bait used. You can account for up to five different baits. If more than five types of bait were used, note other bait types in the comments.

Mackerel	01	Tilefish	17
Herring/menhaden	02	Jacks	18
Squid	03	Barracuda	19
Artificial	04	Mullet	20
Sardine	05	Ladyfish	21
Scad	06	Toadfish	22
Shark	07	Eel	23
Skate/ray	08	Drum family	24
Little tunny/bonita	09	Cichlid	25
Catfish	11	Hake	26
Tunas	12	Sparidae	27
Swordfish	13	Unknown fish scraps	98
Flatfish/Flounder	14	Other	99
Grouper	15		
Bluefish	16		

**TYPE:** Record the one digit code that describes the type of bait used. You can account for up to five different baits.

Whole = 1

Cut = 2

Live = 3

Other = 9

**COND:** Record the one digit code that describes the condition of the bait used.

Frozen = 1

Semi Frozen = 2

Thawed = 3

Fresh = 4

Salted = 5

Other = 9

## 26. SET/HAUL INFORMATION

**SET/HAUL BEGIN/END DATES:** Record the month, day and year this set began and ended. Record the month, day and year this haul began and ended.  
EXAMPLE: 01/01/2002

**SET/HAUL BEGIN/END TIMES:** Record the local time (**24 hour clock NOT hundredths of an hour**) this set began and ended. Record the local time this haul began and ended. Use 0000 for midnight.

**LATITUDE BEGIN/END:** Record latitude in **degrees and minutes** in the appropriate boxes at the beginning and end of each set and haulback. If you can only get LORAN, then record both TD's and LORAN chains. These values will be converted to lat/lon prior to data entry.

**LONGITUDE BEGIN/END:** Record longitude in **degrees and minutes** in the appropriate boxes at the beginning and end of each set and haulback. If you can only get LORAN then record both TD's and LORAN chains. These values will be converted to lat/lon prior to data entry.

**TEMP BEGIN/END:** Record to the nearest tenth of a degree Fahrenheit the sea water temperature. Record the water temperature for when this set began and ended. You can obtain this from available electronics or from a surface temperature, taken with a digital thermometer (rated to + or -0.5 degree Fahrenheit). **If the vessel is not equipped with a temperature gauge take a surface temperature reading with the provided thermometer.**

**SET/HAUL DURATION:** Record the amount of time to the nearest tenth of an hour it takes to set out all the gear for this set. This is calculated from when the first piece of gear is deployed (begin set time) and when the last piece of gear is deployed (end set time). Record the amount of time it takes, to the nearest tenth of an hour, to haul all the gear for this set. This is a calculation from when the first piece of equipment is brought aboard (begin haul time) and the last piece of gear is brought aboard (end haul time).

\*Note time lost searching for gear due to part offs, mechanical repairs or other breaks (>20 minutes) in the normal hauling operations that occur during the haul back. Total lost time is subtracted from the haul duration calculation. Reasons, times and total time (tenths of an hour) are recorded in the comments. Record **ALL** part off data in comments.

Example: Part 0915-0925 (<20 min)

#### **COMMENTS:**

Please use the comments section liberally. Reference each comment with its corresponding field number. If more space is required, use the back of the sheet and include "see back" on the front.

**\*Split hauls** -These are hauls whereby the mainline is intentionally cut to allow remaining gear to soak. This remaining portion of line requires a new haul log. Use the next sequential haul number, record the same set date, time, position, temp and duration but record the new begin haul and end haul information. Also when a split haul occurs, the numbers of gear items (hifliers, floats, hooks and gangions) on each of the two haul logs involved will need to be recalculated to reflect the two separate retrievals. The haul with the additional soak time gets a gear condition code of 69. Other situations that may result in a split haul are when there is a part off and several hours (more than 6) is spent searching; when nightfall delays the search or the continuation of the haul back

until the following morning or when another vessel retrieves a portion of the gear. This last situation would also require that the split haul be recorded as not observed.

**\*Note: Record all split hauls as separate hauls and/or trips.**

Most common form of split haul occurs when vessel reaches a trip limit with gear still in the water. This haul will be assigned a gear code of 71. The subsequent haul will be part of a NEW trip (if vessel heads to dock and unloads catch), and will be assigned gear code 69.

## Beaufort Wind Force Scale

The Beaufort wind force scale was created by Rear-Admiral, Sir Francis Beaufort, around 1805 when he was a captain in the Royal Navy. The scale was designed to gauge wind speed using observations of the winds effects on a sailing ship and other objects when one was without the benefit of expensive equipment.

Force	Wind Speed			WMO Description	Wind Speed Indicators	
	MPH	Knots	Km/H		At Sea	On Land
0	<1	<1	<3	Calm	Ripples with appearance of scales; no foam crests	Smoke drift indicates wind direction; vanes do not move
1	1-3	1-3	1-5	Light Air	Small wavelets; crests of glassy appearance	Wind felt on face; leaves rustle; vanes begin to move
2	4-7	4-6	6-11	Light Breeze	Small wavelets; crests of glassy appearance	Wind felt on face; leaves rustle; vanes begin to move
3	8-12	7-10	12-29	Gentle Breeze	Large wavelets; crests begin to break, scattered whitecaps	Leaves & small twigs in motion; light flags extended
4	13-18	11-16	20-29	Moderate Breeze	1-4 ft. waves; numerous whitecaps	Leaves, & loose paper raised up; flags flap; small branches move.
5	19-24	17-21	30-38	Fresh Breeze	4-8 ft waves; many whitecaps; some spray	Small trees begin to sway; flags flap & ripple
6	25-31	22-27	39-50	Strong Breeze	8-13 ft waves forming white caps everywhere; more spray	Large branches in motion; whistling heard in wires
7	32-38	28-33	51-61	Near Gale	13-20 ft. waves; white foam blows in streaks	Whole trees in motion; resistance felt in walking against wind
8	39-46	34-40	62-74	Gale	13-20 ft. waves; edges of crests begin to break; foam in streaks	Whole trees in motion; resistance felt in walking against wind
9	47-54	41-47	75-86	Strong Gale	20 ft. waves; sea begins to roll; dense streaks of foam; spray may affect visibility	Slight structural damage occurs; shingles blow from roofs
10	55-63	48-55	87-101	Storm	20-30 ft. waves; white churning sea; rolling is heavy; reduced visibility	Trees broken or uprooted; considerable structural damage occurs
11	64-74	56-63	102-120	Violent Storm	30-45 ft. waves; white foam patches; visibility affected	Widespread damage to trees & buildings
12	75+	64+	120+	Hurricane	45 ft.+ waves; white sea; driving spray; visibility seriously affected	Severe & extensive damage

## **BOTTOM LONGLINE HAUL CATCH SUMMARY**

A catch summary is required **for each haul**.

Please sum up the totals for **all species** and their fates according to the codes assigned on the animal logs.

Feel free to use the comments space at the bottom of the page for tallying.

## INDIVIDUAL ANIMAL LOG INSTRUCTIONS

This log is to be used to record catch information: species, live/dead, kept/release, size and sex of animals caught on sets targeting sharks or reef fish.

### HEADER BOX

#### **Observer/Trip Identifier:**

Record a 6 character observer/trip identifier. This Field uses an assigned 3-letter observer identifier (three initials) followed by a 3-digit (001-999) accumulative numerical trip identifier. This identifier is recorded on all logs within a single trip.

Example: LFH001, JKC999

#### **Vessel Name:**

Record the name of the vessel. This is usually displayed on the vessels' bow and stern.

Example: CAPT MIKE, MR PROWLER, PROVIDER III

#### **Vessel Number:**

Record the U.S. Coast Guard Documentation Number, this number (6-7 digits) should be displayed prominently on the vessels' wheelhouse. If the vessel does not have a Coast Guard Number, record the state registration number, which should also be displayed on the wheelhouse and begins with the 2 letter state abbreviation.

Example: 987602, 1028691 or FL2056GY

#### **Date of Haul:**

Record the month, day, year that the haul back of the gear begins.

Example: 07/03/2000

#### **Haul Number:**

Record the consecutive number each time the gear is hauled, starting with 1 for the first set and haul, and continuing with 2, for the second set and haul, etc.

#### **Page Number:**

Record this page number, and the total number of pages used on this haul. The haul log will always be page number 1 and the Individual Animal Logs will be numbered sequentially **starting with page number 2**.

Example: haul log + 5 animal logs, recorded as 2 of 6, 3 of 6, 4 of 6, 5 of 6 and 6 of 6

### INDIVIDUAL ANIMALS BOX

#### **Specimen or Turtle Specimen Number:**

Start with a value of 101, which should avoid being misread at the fish house (100 vs 001) and duplication with any turtle specimen numbers (1, 2, 3 etc). The other type of number that may be recorded here is a turtle specimen number. Please number turtles starting with 001 and number sequentially as encountered within a single trip.

**Species Name** (abbreviation):

Record a three letter designation (SEE SPECIES CODE LIST) for each species, including marine mammals, sea turtles or sea birds that may be caught incidentally. Attempt to identify all animals to species, but please take pictures and make notes about the distinguishing characteristics for those you aren't sure of. If you do not get a clear look at the animal do not hesitate to use group abbreviation (SHX, TUN, BIL, etc.).

**Species Code:** (SEE SPECIES CODE LIST)

Record the 4 digit code. If you are unable to identify to a species or species is unlisted, photograph and leave blank until debriefing.

**Status:**

Indicate the condition of the animal with the codes provided on the datasheet.

**Action:**

Indicate the fate of the animal with the codes provided on the datasheet. For Action 8 provide a comment with % or portion of animal kept.

**\*NOTE:** We assume that when a shark is kept, the fins are also kept. Record a 1 for all when a shark carcass is kept and fins are also kept. Record a 4 when a shark carcass is discarded and the fins are kept. If fins are kept in conjunction with another action record both action codes. Example: Shark is kept for bait but fins are also kept record 7, 4.

**Length:**

Attempt to obtain a **straight line** length measurement from all dead sharks and fish, requesting all bycatch species (within reasonable size) be brought onboard. Fork length measurements should be taken on all dead catch. Do not try to piece animals together that have been cut. Figures 1-4 describe the specified measurements for each type of fish. Estimated lengths for incidentally taken mammals and turtles should also be recorded here. If a turtle is brought on board, the measurement will be the notch to tip carapace length (curved). Additional information will be recorded on the incidental take log for mammals and birds or the turtle life history data sheets. All sharks, tuna and other finfish species are to be taken as a straight measurement. Record the curved measured length of all billfish and swordfish to nearest centimeter according to the standards below. Estimated lengths should be taken for all dead/live released animals to the nearest foot. Measurements can easily be converted to centimeters using (1 foot = 30 cm). Enter the defined length and record a 3 in the length code.

Sharks: Tip of snout to fork of tail (FORK LENGTH)

Finfish and Tuna: upper jaw to fork of tail (FORK LENGTH)

Skates/rays: Wing tip to wing tip at the widest point (DISC WIDTH)

Swordfish/Billfish: Tip of lower jaw to lower fork of tail (LOWER JAW FORK LENGTH)

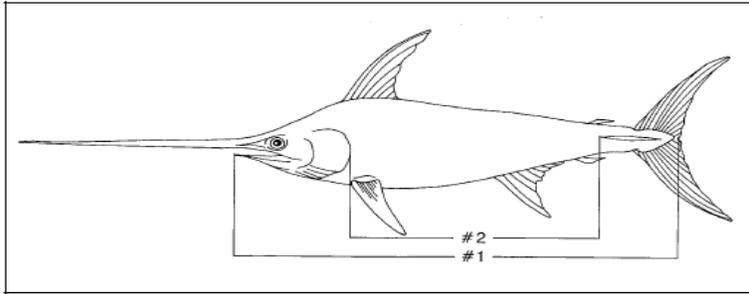


Figure 1. Swordfish measurements: Tip of lower jaw to fork (curved)

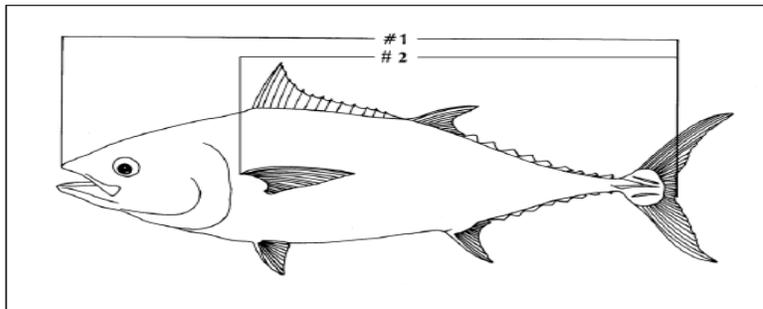


Figure 2. Tuna measurements: Tip of upper jaw to fork of tail (straight)

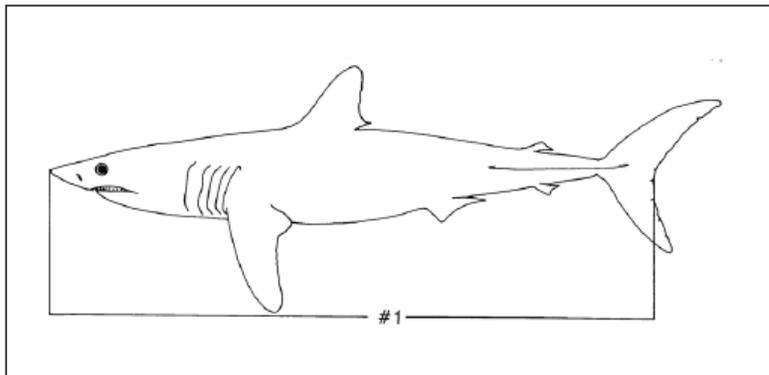


Figure 3. Shark measurement: Tip of snout to fork (straight)

**Code:**

Indicate the measurement type with the codes provided on the datasheets.

**Sex:**

Record the sex of this animal, coded as follows:

U = Undetermined

M = Male

F = Female

**Tag Number or Comment:**

Record the complete tag number (including any alpha prefix) for each tag/release animal.

Attempt to re-tag a live fish that already has a tag in place. Always request that a dead tagged animal be brought on board, and keep the tag and vertebrae samples of tagged

dead sharks. Assist crew in completing a tag card for all tag/release animals and offer to return tag cards to us with your datasheets. This area may also be used to record a brief comment about an individual animal.

**Tag Code:**

Indicate the origin of the tag number from above with the codes provided. 01 Released means you tagged and released the shark alive, 02 Retagged means the shark already had a tag, and you tagged it again and released it (record original and new tag numbers), and 03 means the shark was caught tagged and was sacrificed or kept by the fishers.

**Samples Taken:**

Check the boxes for samples taken from individual animals. **If you take a repro sample, always take a vert sample as well.** Again, if a tagged shark is kept by the fishers, please keep the tag and take a vert sample. Also note if a picture was taken of an animal.

**Comments:**

Record any information for an individual animal that is not covered in the other fields. Type of damage, % damage, kept, but not sold, incidental take details, hooked or entangled, gear removed and condition statement upon release. Do not include any comments that can not be related directly (by species #) to an animal on the log.

## Invoice Instructions

This invoice will be used to obtain reimbursement for observer expenses incurred during a deployment aboard a U.S. commercial longline vessel.

TRIP NUMBER- office use only

VESSEL NAME- name of the vessel that carried the observer

ORGANIZATION CODE- office use only

TASK NUMBER- office use only

DATES OF TRIP- dates observer was aboard the vessel

MEAL EXPENSES- calculate food cost: (rate) X (days at sea) = subtotal. Observers' personal food purchases may be deducted from subtotal, if so, a copy of the receipt will be provided.

TOTAL- total cost incurred (food) for observer

CORPORATION NAME/OWNER NAME- person or entity whose name will appear on the check.

SSN- social security number (if check is going to an individual) or EIN (corporate number)

MAILING ADDRESS- address where the check should be sent

PHONE- contact number for additional information

DATE- date of signature

SIGNATURE- signature of authorized person

PLEASE RETURN TO:                   Lori Hale  
Southeast Fisheries Science Center  
3500 Delwood Beach Road  
Panama City, FL 32408

IMPORTANT:           We need a SSN or EIN or the check will not be processed.

We need original signatures on the invoice- do not fax!

Please write legibly with blue or black ink.

Allow 3-4 weeks for payment.

If you have any questions concerning this invoice or payment, please call at 850-234-6541 ext. 250



**BOTTOM LONGLINE GEAR LOG**

NOAA Fisheries Panama City Laboratory SBLOP

1 OBS/TRIP NUMBER <b>IEB001</b>		2 VESSEL NAME <b>Sexy Mama</b>		3 VESSEL NUMBER <b>032154</b>		4 DATE LANDED (mm/dd/yyyy) <b>01/02/2007</b>																																																															
5 STRING NUMBER <b>01</b>		6 NUMBER OF HOOKS <b>449</b>		7 ANCHOR USED? Y <input type="radio"/> N <input checked="" type="radio"/>		8 ANCHOR WEIGHT <b>∅</b> lbs																																																															
9 # HAULS (this string) <b>4</b>		10 CODES		12 FLOATS		14 LEADERS? (Y/N) <b>N</b>																																																															
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COMMENTS: <p style="font-size: large; font-family: cursive;">Rough diagram of gear</p> <p>The diagram shows a horizontal line representing the mainline. From left to right, it has a float labeled 'poly', a bullet/daub labeled 'bullet', and four floats labeled 'b'. Below the mainline, there are four vertical lines representing droplines, each labeled 'w' for weight. The rightmost float 'b' also has a vertical line labeled 'poly' above it and 'weight' below it. The word 'Dropline' is written at the bottom center of the diagram.</p>																																																																					

BOTTOM LONGLINE HAUL LOG

NOAA Fisheries Panama City Laboratory SBL0P

1 OBS/TRIP ID	2 VESSEL NAME	3 VESSEL NUMBER	4 DATE LANDED mm/dd/yyyy	5 HAUL #	6 GEAR CODE	7 PAGE NUMBER
JB001	Sexa Mama	032194	01/02/2007	1	676	1 OF 8
8 HAUL OBS? (Y/N)	9 CATCH? (Y/N)	10 INC TAKE? (Y/N)	11 WEATHER	12 WIND SPEED	13 MAX WAVE HEIGHT	14 REVERSE HAUL? (Y/N)
Y	Y	N	01	15	3	N
17 MAINLINE LENGTH NM	18 SET SPEED KN	19 BOTTOM DEPTH RANGE FM	20 TOTAL ADD. WEIGHT	21 TARGET SPECIES ABBR	22 SOAK DURATION	
5.0	5.0	8 - 12	60	SHX	14.2	
23 GEAR USED	Y/N	NUMBER	24 NUMBER OF HOOKS	25 BAIT INFORMATION		
FLOATS	Y	6	SET 450	NUMBER		
HIGH FLYERS	N	0	LOST 3	1 300	LBS	KIND
ADD LINE WEIGHTS	Y	6		2 150	50	21
				3 -	-	-
				4 -	-	-
				5 -	-	-

26 SET/HAUL INFO	DATE mm/dd/yyyy	TIME 24 hours	LATITUDE			LONGITUDE			TEMP (F)	DURATION hours
			HH	MM	SS	HH	MM	SS		
SET BEGIN	01/01/2007	16:32	30	02	88	34	83.0			
SET END	01/01/2007	17:30	30	05	88	30	83.0	1.0		
HAUL BEGIN	01/02/2007	07:41	30	02	88	34	83.0			
HAUL END	01/02/2007	10:11	30	05	88	31	83.0	2.5		

Wind decreased to 7 kt by end of set

SBLOP INDIVIDUAL ANIMAL LOG

OBS/TRIP ID	VESEL NAME	VESEL NUMBER	DATE OF HAUL <small>mm/dd/yyyy</small>	HAUL NUMBER	PAGE									
TE6001	Sexy Mama	032154	01/02/2007	1	2 of 8									
Specimen Number	Species	Code	STATUS Unk (0) Alive (1) Dead (2) Damaged (3)	ACTION Unk (0) Kept (1) Released dead (2) Released alive (3) Finned (4) Lost (5) Tended (6) Kept as bait (7) Part of carcass kept (8)	LENGTH (cm) FL Straight line (1) Curved line (2) Estimated (3)	FL Code	SEX (M, F, U)	TAG NUMBER OR COMMENT	TAG CODE Released (1) Retagged (2) Recaptured (3)	Vert	Stom	Repro	Fin	Pic
101	SSB	3513	1	1	152	1	F			✓		✓	✓	
102	SSB	3513	1	1	135	1	F							
103	SSB	3513	1	1	122	1	F							
104	SSB	3513	1	1	103	1	M							
105	SSB	3513	2	1	105	1	M							
106	SSB	3513	1	1	117	1	F							
107	SAS	3518	2	7	60	1	M							
108	SSB	3513	2	1	149	1	F			✓		✓	✓	
109	SAS	3518	2	1	72	1	M							
110	SSB	3513	1	1	122	1	M							
111	SSB	3513	1	1	125	1	M							
112	SSB	3513	2	0	150	3	U	lost off line						
113	SSB	3513	2	1	115	1	M							
114	SSB	3513	2	1	120	1	M							
115	SSB	3513	1	1	120	1	M							
116	SOU	4120	2	1	23	1	U	Not sure of sp.						✓

Comments:  
#116: 23 gill rakers. DI: 10 spines, 12 rays. Prominent anal fin spine.