

INTER-AMERICAN TROPICAL TUNA COMMISSION

~~94TH~~-104TH MEETING

~~Bilbao, Spain~~ Lisbon, Portugal

~~22-26 July 2019~~ August 31-September 4, 2026

PROPOSAL IATTC-104 M-2

SUBMITTED BY THE UNITED STATES

RESOLUTION ON SCIENTIFIC OBSERVERS FOR LONGLINE VESSELS

The Inter-American Tropical Tuna Commission (IATTC), gathered in ~~Bilbao, Spain~~ Lisbon, Portugal, on the occasion of its ~~94th~~-104th Meeting;

Recognizing the need to collect scientific information on target species as well as comprehensive data on interactions with non-target species, in particular, sea turtles, sharks and seabirds;

Noting the need to ensure uniform and equitable treatment of all tuna-fishing vessels operating in the Convention Area;

Noting that all large purse-seine vessels operating in the Convention Area are required to carry scientific observers aboard, in accordance with the Agreement on the International Dolphin Conservation Program, and that the Commission has recommended the extension of observer coverage to smaller purse-seine vessels on a voluntary basis;

Taking into account that IATTC scientific staff and the IATTC Working Group on Bycatch have reiteratedly recommended at least 20% observer coverage on longline vessels fishing for tunas in the Convention Area, and that the Working Group on Bycatch suggested that human observer coverage could be supplemented by electronic monitoring systems (EMS) in order to achieve that goal; and

Noting that the Scientific Advisory Committee (SAC), at its 10th meeting in May 2019, determined that the appropriate measure of longline fishing effort for calculating observer coverage is “number of hooks.”

Agrees that:

1. For the purposes of this Resolution, longline fishing effort is defined as the number of effective days of fishing¹ or hooks deployed.
2. The main task of the scientific observers and/or EMS shall be to record, consistent with data standards established by the SAC, any available biological information, the catches of targeted fish species, species composition, **size distribution**, and any available biological information, as well as any interactions with nontarget species such as sea turtles, seabirds and sharks.
3. Each Member and Cooperating Non-Member (CPC) shall ensure that at least 5% of the fishing effort made by its longline fishing vessels greater than 20 meters length overall carries a **human**~~scientific~~ observer.
 4. In addition to ensuring compliance with the 5% minimum observer coverage requirement in paragraph 3, CPCs are encouraged to submit to the IATTC longline data consistent with paragraph 3 that is collected by means of electronic monitoring systems in accordance with the interim EM minimum standards (Resolution C-24-09). CPCs that submit EM data may report EM coverage as part of their overall longline observation coverage rate in Annex A.²

¹ As defined by SAC-03 in 2012.

² e.g. 5% human observer coverage + 15% EM coverage for a total of 20% longline observer coverage

~~3~~5. In 2027, the IATTC scientific staff shall review any EM data submitted by CPCs. The EM Working Group shall take that analysis into account when making any recommendations to improve the standards as outlined in paragraph 2 of Resolution C-24-09.

6. The IATTC Staff shall evaluate EM data submitted in accordance with this resolution and advise the Scientific Advisory Committee (SAC) regarding the ongoing necessity for a minimum level of human observer coverage, including a recommendation for the appropriate level if any. This analysis should include a comparison of the data able to be collected by EM versus human observers, and the implications of those differences for the Commission's work. A revised minimum level of human observer coverage shall be considered for incorporation into this Resolution in 2029, taking into consideration the IATTC Staff's recommendation.

~~4~~7. Any CPC with an intent to submit EM data to the Secretariat must first submit Vessel Monitoring Plans in Accordance with Annex 4 of C-24-09 and an EMS Program Description in accordance with Annex C of this Resolution for review by the IATTC Scientific Staff for consistency with IATTC EMS standards. By 2030, only CPCs with programs deemed consistent with EMS Standards by the IATTC Scientific Staff shall be permitted to utilize EM to meet observer coverage requirements.

~~5~~8. Each CPC shall ~~endeavor to~~ ensure that human observer or EM coverage is representative of the activities of its fleet, including in terms of gear configuration, target species and fishing areas.

~~6~~9. CPCs shall:

- a. Ensure that the minimum level of coverage is met
- b. Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
- c. Endeavor to ensure that human observers alternate vessels between their assignments;
- d. Ensure that the vessel on which a human ~~an~~ observer is placed provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely, including providing access, as required, to the retained catch, and catch which is intended to be discarded.

~~7~~10. Unless otherwise specified by the SAC, CPCs shall submit data pursuant to this resolution using the template ~~The reporting requirements established by the SAC pursuant to resolution C-11-08 can be found in Annex A~~ by April 30 of each year. The SAC may decide to modify these reporting requirements or establish new ones whenever deemed necessary and shall notify the Commission as appropriate for endorsement at the subsequent annual meeting of the IATTC.

~~8~~11. CPCs shall submit operational data collected by observers or EM from the previous year, consistent with the Minimum Data Reporting Standards (Annex B), to the Director no later than June 30 of each year.

~~9. Unless otherwise specified by the SAC, CPCs shall submit other reporting under this Resolution by 31 March of each year.~~

~~10. The IATTC Scientific Staff, in consultation with CPCs, shall prepare a draft proposal for the development of minimum standards for the implementation of an EMS for the longline fleets, taking into account the experience of CPCs that are implementing EMS on longline vessels and progress made in other tuna RFMOs, to be submitted to the SAC meeting of 2020.~~

~~11. The SAC, in consultation with the IATTC Scientific Staff, shall present recommendations on this proposal to the Commission for its consideration at its annual meeting in 2020.~~

Annex A: Annual Summary Reporting (established by SAC-10)

Annex B: Minimum Data Reporting Standards (2 options, established by SAC-08)

Option 1 (harmonized with WCPFC)

Option 2 (IATTC-developed longline observer forms)

Annex C: EMS Program Description

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Annex A.

Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA operating in the EPO

(adopted by the 10th Meeting of the IATTC Scientific Advisory Committee, May 2019)

CPC	Name
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FLEET INFORMATION (vessels >20 m LOA)									
	Both set types combined			Shallow sets (<15 HPB/HBF ¹ or <100 m max hook depth)			Deep sets (≥15 HPB/HBF or ≥100 m max hook depth)		
Period covered	Date range DD-MMM-YY – DD-MMM-YY			Date range DD-MMM-YY – DD-MMM-YY			Date range DD-MMM-YY – DD-MMM-YY		
Area fished	from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N		
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed
No. of vessels that fished									
No. of trips									
No. of effective days fishing									
No. of sets									
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)									
Predominant ² hook type/size (IATTC code)									
Predominant bait type ³									

¹ Hooks per basket / Hooks between floats

² 'Predominant' means most common, i.e., >50%

³ Bait codes: SQ – squid; F – fishes (e.g. *Scomber* spp.); A – artificial lure (e.g. plastic jig)

[illegible]

Annex B, Option 1.

Data field	Description/Instructions/Comments
GENERAL VESSEL AND TRIP INFORMATION	
VESSEL IDENTIFICATION	
Name of vessel	Name, including all numbers or other characters
Flag Registration Number	The number issued to the vessel by the authorities of its flag State.
International Radio Call Sign	If issued.
Vessel Owner/Company	Name (individual or company) and contact information, if available, of the vessel owner.
International Maritime Organization 'IMO' or Lloyd's Register number 'LR'	If issued.
VESSEL TRIP INFORMATION	
Date and time of departure from port	The date and time the vessel leaves port to start its fishing trip.
Port of departure	Include both the port name and country.
Date and time of return to port	The day and time the vessel returns to a port at the completion of its trip.
Port of return	Include both the port name and country.
OBSERVER INFORMATION	
Observer name	Full name.
Observer provider	Name of the organization or agency that employs the observer and has placed him on the vessel.
Date, time and location of embarkation	The date, time, and location where the observer boards the vessel to start his trip.
Date, time and location of disembarkation	The date, time, and location where the observer leaves the vessel and concludes his observer duties.
CREW INFORMATION	
Name of captain	Full name.
Name of fishing master	Full name.
Total number of crew	Total number of people aboard the vessel, excluding the observer
VESSEL CHARACTERISTICS	
Note: These characteristics only need to be noted if what is observed differs from specifications reflected on the IATTC vessel register.	
Vessel fish hold capacity	The total combined capacity, in metric tons (MT), of the vessel freezers, wells, and any other areas that can be used to store catch.
Freezer type	Some vessels may have more than one type of freezer. List all types present.
Length Over All (specify unit)	The "LOA" can typically be found in the vessel plans or other documents.

Tonnage (specify unit)	The vessel tonnage, as recorded in the vessel's registration documents; may be expressed as Gross Tonnage (GT) or Gross Register Tonnage (GRT).
Engine power (specify unit)	The engine power is typically listed in the vessel plans.
VESSEL ELECTRONICS	
Indicate "Yes" if present, "No" if absent. If more than one of type is present, indicate the total number present	
Radars	"Yes" if present, "No" if absent.
Depth Sounder	"Yes" if present, "No" if absent.
Global Positioning System (GPS)	"Yes" if present, "No" if absent.
Track Plotter	"Yes" if present, "No" if absent.

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Data field	Description/Instructions/Comments
Weather Facsimile	"Yes" if present, "No" if absent.
Sea Surface Temperature (SST) gauge	"Yes" if present, "No" if absent.
Sonar	"Yes" if present, "No" if absent.
Radio/ Satellite Buoys	"Yes" if present, "No" if absent.
Doppler Current Meter	"Yes" if present, "No" if absent.
Expendable Bathythermograph (XBT)	"Yes" if present, "No" if absent.
Satellite Communications Services (Phone/Fax/Email)	Indicate all the vessel Satellite numbers if the vessel has Satellite communications on board
Fishery information services	"Yes" if present, "No" if absent. Please also list the information service used.
Vessel Monitoring System	Indicate the type(s) of VMS used on the vessel (e.g. INMARSAT, ARGOS, etc.)
Refrigeration Method	List all refrigerator types used on the vessel.
GENERAL GEAR CHARACTERISTICS	
Mainline material	List the of the mainline used by the vessel (e.g. Kuralon, Braided nylon, Monofilament Nylon, etc.).
Mainline length (specify unit)	The total length of the mainline when it is fully set
Mainline diameter (specify unit)	
Branch line material(s)	A branch line can consist of one type of material like monofilament or it can be made up of many different materials like braided nylon wire trace and mono filament, etc. If different types are used in different branch line positions, please describe.
SPECIAL GEAR CHARACTERISTICS	

Wire trace	At the trip level indicate “Yes” or “No” -if the vessel uses wire traces on some or all of its lines. If wire traces used on all lines during the trip then record "ALL LINES." If the vessel used wire traces on certain branch line positions during the trip, describe the configuration. For example, “wire traces were used on first and tenth branch lines of each basket”. If the proportion of leaders that are wire varies within a trip, record the average based on a sample of ten total baskets from a range of sets.
Mainline hauler	Does the vessel use an instrument to haul in the main line after it is set or is the line hauled by hand?
Branch line hauler	Does the vessel use a special hauler to coil branch lines?
Line shooter	Does the vessel use a line shooter?
Automatic bait thrower	Does the vessel use a bait thrower or are bait and branch lines thrown overboard manually?
Automatic branch line attached	Does the vessel have an automatic branch line mechanism that attaches the branch at regular intervals or is this done manually?
Hook type	For each set , record the type of hook or hooks used, using the codes in the hook catalogue (e.g. J hooks, circle hooks, offset circle hooks, etc.)
Hook size	For each set , record the size of the hooks used. If not sure, ask the bosun or refer to a hook catalogue.
Tori Lines	For each set , record whether the vessel uses Tori lines when setting; if yes, how many and their length.
side setting with bird curtain and weighted branch lines	For each set , record whether the vessel used side-setting with a bird curtain in combination with weighted branch lines.

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Data field	Description/Instructions/Comments
Weighted branch lines-	For each trip where weighted branch lines are used, record the mass of the weight attached to the branch line. If more than one type of weighting is used during a trip, describe each type and indicate the proportion based on a sample of ten baskets from a range of different sets.
Shark lines	For each set , record the number of shark lines (branch lines running directly off the longline floats or drop lines) observed. Where possible, record the length of this line for each set.
Blue dyed bait	For each set , record whether the vessel used blue-dyed bait.
Distance between weight and hook (in meters)	For each set , record the distance in meters from where the bottom of the weight is attached on the branch line to the eye of the hook.
Deep setting line shooter	For each set , record whether the vessel used a deep setting line shooter.
Management of offal discharge	For each set , record whether the vessel used the management of offal discharge.

Date and time of start of set	For each set , record the date and time the first buoy is thrown into the water to start the setting of the line.
Latitude and Longitude of start of set	For each set , record the GPS reading at the time the first buoy is thrown into the water
Date and Time of end of set	For each set , record the date and time the last buoy (usually has radio beacon attached) at the end of the mainline is thrown into the water
Latitude and Longitude of end of set	For each set , record the GPS reading at the time the last buoy is thrown into the water
Total number of baskets or floats	For each set , record the number of baskets utilized. A basket is the sum of all the hooks set between two buoys on a longline; usually it is the same as the number of floats set minus one.
Number of hooks per basket (number of hooks between buoys)	For each set , record how many hooks set from one buoy to another, the number is usually constant along the line, but can vary in some cases, also if the vessel also sets a branch line on the buoy, count this as a hook between floats as well.
Total number of hooks used	For each set , record how many hooks were used. This is typically calculated by multiplying number of baskets by the number of hooks per basket.
Line shooter speed	For each set where the vessel uses a line shooter, record the shooter speed. The shooter will normally have an indicator to show its running speed, as well as a sound indicator or light, that beeps at a regular interval, when it is time to attach a branch line.
Length of float-line	For each trip , record length of the line that is attached to the floats, get a coil and measure the length. It usually remains the same throughout the trip.
Distance between branch-lines	For each set , record the distance between branch line attachments to the mainline. This can be determined easily if vessel has a line shooter with electronic attachment indicator.
Length of branch-lines	For each set , measure the length of a sample of the majority of branch lines used, some may vary slightly due to repairs.
Time-depth recorders (TDRs)	Does the vessel use TDRs on its line? If yes record the number of TDRs used it may use and their location along the mainline.?
Number of light-sticks	For each set , indicate whether the vessel uses light sticks on its line, record the number used, and where possible, information on

	the location (e.g. "used on first and tenth branch lines from the float").
Target species	What species does the vessel target? Tuna (BET YFT), Swordfish, Sharks, etc.
Bait Species	For each set , record the bait species used Pilchard, Sardine, Squid, artificial bait, etc.

Date and time of start of haul	For each set, record the date and time the first buoy of the mainline is hauled from the water to start the haul.
Date and time of end of haul	For each set, record the date and time the last buoy of the mainline is hauled from the water to end the haul.
Total number of baskets, floats monitored by observer in a single set	For each set, record how many floats or baskets were monitored by the observer?
INFORMATION ON CATCH FOR EACH SET	
Hook number (location between floats)	For each individual capture, record the hook number that the animal is caught on, counting from the last float hauled on board.
Species	Use FAO species code.
Length of fish	Measure length of specimen, using the recommended measurement approach for the species.
Length measurement code	Reflect the type of length measurement taken using the appropriate measurement code. For example, all tunas are measured from the end of the upper Jaw to fork of the tail, measurement code UF.
Sex	Sex the species if possible. If an unsuccessful attempt is made to sex the individual, record "I" for indeterminate. If no attempt to sex the individual is made, record "U" for unknown.
Condition when caught	For bycatch species (<i>e.g.</i> sharks, sea turtles, seabird, marine mammals, etc.) also reflect hooking location [<i>i.e.</i> hooked in mouth, hooked deeply (throat/ stomach), and hooked externally].
Fate	Record the ultimate disposition of the capture using the appropriate code (<i>e.g.</i> retained, discarded, etc.)
Condition when released	If released, record the animal's status when returned to the sea.
Tag recovery information	Record as much as information as possible on any tags recovered
SPECIES OF SPECIAL INTEREST	
Sea turtles, marine mammals, sea birds, and sharks	
GENERAL INFORMATION	
Type of interaction	Indicate the type of interaction (<i>e.g.</i> entangled, hooked internally, hooked externally, interaction with vessel only, etc.).
Date and time of interaction	Record ships date and time of interaction
Latitude and longitude of interaction	Record position of the interaction.
Species code of sea turtle, marine mammal, or seabird.	Use FAO codes for Species.
LANDED ON DECK	
Length	Measure length, in centimeters.
Length measurement code	Measure using the measure method determined for that species.
Sex	Sex the animal if possible.
Estimated fin weight (for sharks)	Weigh the fins separately if shark has been finned by crew. If no scales, estimate the weight.

Estimated carcass weight (for sharks)	Weigh the carcass of a finned shark. If no scales available, carcass is discarded, or if it is too large to handle, estimate the weight.
Condition when landed on Deck	Record the animal's condition when landed on deck, using

Data field	Description/Instructions/Comments
	appropriate code.
Condition when released	If released, record the animal's condition at the time of release, using appropriate code.
Tag recovery information	Record as much as information as possible on any tags recovered
Tag release information	Record as much as information as possible on any tags placed on the species before release.

Annex B, Option 2.

LONGLINE GEAR FORM

F2

VESSEL: _____ SAMPLE No: _____ OBSERVER: _____

Registration		Length	m	Fuel capacity	gal	Number of crew	
Company name		Width	m	Fuel used	gal	Water capacity	gal
Captain Name		Draft	m	Type of fuel		Catch conserve method	
Departure date/time		Distance deck to water	m	Type (fibra-mother ship)		If the vessel is a 'fibra', name of mother ship	
Arrival date/time		Well capacity	MT	Number of fibras			
Departure port		Main motor		Navigation and fishing equipment:			
Arrival port		Aux. motor					

Characteristics	Quantity	Material *	Diameter	Length	Color *	Distance btwn. hooks↓	Max. hooks on mainline↓	Number of lights↓	Number of radio buoys↓
Mainline			mm	Nm		bz			
Upper gangion			mm	fath		<u>Mainline weights:</u> Yes () No ()			
Middle gangion			mm	fath		<u>Mainline retrieval</u> By hand () Manual crank ()			
Lower gangion			mm	fath		<u>Dropline connection to mainline:</u> Knots () Snaps () Hydraulic crank () Other _____ ()			
Floatline / dropline				cm		Fishing gear diagram			
Buoy			cm						
Flag									
Float			cm						

Hooks	Type (J / C)	Size	J-straight/ J-curved	Material*	Manufac-turer	Offset	Ring (Yes / No)	Other details	Observations
Hook A									
Hook B									
Hook C									

* Use numbers from code tables

F2s v2: 02/2012

LONGLINE SET FORM

F3

VESSEL: _____ SAMPLE No: _____ OBSERVER: _____

Set number		SET		RETRIEVAL		Number of hooks in the set by type:	Hook. A	Hook. B	Hook. C	Type of bait	% of total
		Start	End	Start	End						
↓ Date ↓	LAT					Total no. of hooks in set:				Bait 1	
	LON									Bait 2	
	TIME									No. of hooks lost:	
Target Fishery	Set	Yes	Retrieval direction	Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth	Bottom longline?				
	Special?	☐	Start to end	☐			Yes No				
	Patrolled?	☐	End to start	☐		fath	☐ ☐				

Observations:

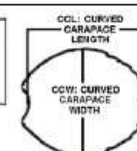
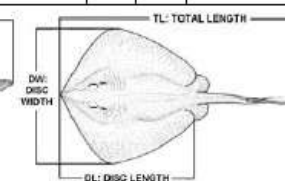
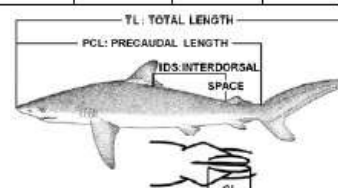
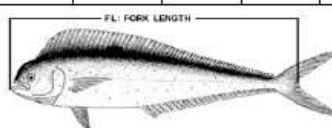
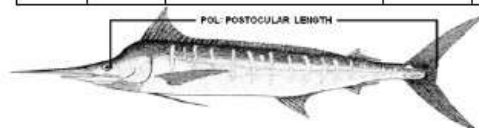
Set number		SET		RETRIEVAL		Number of hooks in the set by type:	Hook. A	Hook. B	Hook. C	Type of bait	% of total
		Start	End	Start	End						
↓ Date ↓	LAT					Total no. of hooks in set:				Bait 1	
	LON									Bait 2	
	TIME									No. of hooks lost:	
Target Fishery	Set	Yes	Retrieval direction	Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth	Bottom longline?				
	Special?	☐	Start to end	☐			Yes No				
	Patrolled?	☐	End to start	☐		fath	☐ ☐				

Observations:

Set number		SET		RETRIEVAL		Number of hooks in the set by type:	Hook. A	Hook. B	Hook. C	Type of bait	% of total
		Start	End	Start	End						
↓ Date ↓	LAT					Total no. of hooks in set:				Bait 1	
	LON									Bait 2	
	TIME									No. of hooks lost:	
Target Fishery	Set	Yes	Retrieval direction	Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth	Bottom longline?				
	Special?	☐	Start to end	☐			Yes No				
	Patrolled?	☐	End to start	☐		fath	☐ ☐				

Observations:

F4

[illegible]

F4s v1: 02/2012

F5

VESSEL: _____ SAMPLE No: _____ OBSERVER: _____

[illegible]

F5s v1: 02/2012

F6

VESSEL: _____ SAMPLE No: _____ OBSERVER: _____

[illegible]

* Use numbers from code tables

Annex C

1. High-level description of the EMP, including:
 - a. Scope (e.g., covered vessels and objectives)
 - b. Operating model (e.g., regulatory or voluntary framework, role of technology partners, and footage review procedures)
 - c. Technology stack (e.g., wireless vs. hard drive uploads, cloud vs. local storage, and use of artificial intelligence (AI))
 - d. Enforcement mechanisms and maintenance of independence of Data Review Center (DRC) such as Organizational separation and conflict-of-interest.
2. Detailed description of the EMS program and how it meets the interim standards set out in Annex 2 and Annex 5 of C-24-09.