PIRFO Debriefer's Guide for 2018 Purse seine Forms



PIRFO Sub-regional Debriefer Workshop
18 - 22 November 2019
SPC
Noumea
New Caledonia

Data Field Areas	PS 1 Page 1&2
Observer Programme	This Data field requires the name of the Observer Programme that sends you for that particular trip. This should be written using the FAO 2-alpha country codes and Observer Programmes. Example; PGOB, SBOB, TVOB, FJOB, etc. According to the SPC Data Base, for sub-regional programmes such as the FFA (administrator of US Treaty trips), the code is TTOB and for POA (administrator of FSMA trips), the code is FAOB. See attachment 1 of this guide. Verification: Make sure that for FAOB Trips, the vessel flag should be a PNA member country flagged vessels. PNA flagged vessels means it has to be KI, MH, FM, TV, SB, NR PW or PG flagged vessels.
	OBSERVER NAME Observer name that you use to fill out the Data forms. This should be the same name as is on your official document such as Passport or registered in the Observer Data base.
	TRIP ID NUMBER Recorded as given by respective placement programme e.g. MAK 18-04, TVETI 18 - 01 or FSMA /POA/25/125, etc. Debriefer to ask if there is any document provided by the placement programme for the trip. Example, a trip brief.
	NATIONALITY refers to the observer's nationality as in passport. Write the country code. PNG is PG and not PNG. FSM is FM. For Dual passport holder , observers are encouraged to state, or declare or record the Nationality that they are currently using when filling other official documents. Example, if an observer has Fijian and Tuvalu passports and nationalities, he or she will record the Nationality he or she is currently declaring to go on the trip and the other in the comment.
TRIP DETAILS	TRIP START & END LOCATION: Record the name of port and country code in bracket once vessel departs and arrives in port. E.g. Rabaul (PG), Funafuti (TV).
	If observer boards his or her assigned vessel at sea, at the fishing ground, record Trip start location as At Sea with positions in degrees and minutes only for latitude and longitude. No need to write decimal of minutes. E.g. AT SEA (05° 25' S, 155° 30' E) This is the same if observer disembarks host vessel at sea.
	VESSEL DEPARTURE PORT AND DATE Record name of the port that the observer host vessel departs from to begin this current fishing trip and the date it departs that particular port. Debriefer should check the vessel log sheet if available for confirmation.
	If observer boards the vessel at sea, observer should obtain this information from the vessel log. That is the last port the vessel departed from (including the date of departure) to fishing ground.

TRIP START & END DATE AND TIME Record the date and time of observer vessel departs and arrives in port to do either partial or full transshipment.

Debriefers to confirm that trip start time is aligned to the time of first activity code (mostly activity code 3) recorded in PS2 page 1 and end of trip time is aligned to the time of the final activity (usually activity code 6) as recorded in the last PS 2 page for the trip.

VESSEL NAME Record what written on the side of the vessel. Observer to check that vessel name written on the ship's side is the same name as in the vessel documents. Note any differences in the comments section (bottom of page) and in the Journal and written report.

FISHING PERMITS Record all Fishing Licenses in this data field. If extra space needed, record additional information in the comment section at the bottom of the page. Observers can also check the Vessel log sheet for license records.

SOUTH	PACIFIC REGI	ONAL PURSE-SEI	NE LOGSHEET	PAGE		
	FISHING PERMIT OR LICENCE NU	MBER(S)		Y		
		MFT 03/1	1			
EGISTER NUMBER	NAME OF AGENT IN PORT OF UNI	OADING	PORT OF DEPARTURE	PC		
781	Ching Fu (R	Majuro, RMI				
VED ALC (YN) ?	NUMBER OF FADS USED	TENDER VESSELS USED? (YAN)	DATE AND TIME OF DEPARTURE	D		
Y	0 N 28 January 2012 / 00.0					
RADIO CALLSIGN	ALL DATES AND T	IMES MUST BE UTC / GMT	AMOUNT OF FISH ONBOARD AT START OF TRIP	AA		
6712	ALL WEIGHTS MU:	ST BE METRIC TONNES	0			
SET	RET	AINED CATCH		DISC		

VESSEL OWNER Record from the vessel documents (license, etc.). Know the difference between the **owner and charterer.**

LOA Length overall. Record the information as provided from license, etc. This figure is in metres and is usually to 2 decimal points (example, 69.15m).

VESSEL CHARACTERISTICS <u>UVI</u> Record the seven digits IMO Number in this data field. Some vessels may have <u>both</u> the <u>IMO</u> and other <u>UVI</u> number (sometimes 5 digits). Record the IMO number in the data field (as we are all aware of the IMO number) and the instructions at the back of the form specifically mentions that UVI is the IMO Number.

IMO 1234567

If the vessel has no IMO number but record, some kind of UVI number, record that number in the comments and put a dash in the UVI Data field since UVI refers to IMO Number and the 5 digits are not IMO number. When recording IMO as UVI number, record it as **IMO 1234567.** That is, record the pre-fix IMO and then the seven digits (see example)

GT/GRT Record GT or GRT that is in the vessel documents. Encourage observers to record what is in the vessel document.

VESSEL CRUISING SPEED Make sure the observer understands the difference between the top speed and the cruising speed. E.g., compare searching speed to speed when circling a free school during setting. Cruising speed is recorded in **whole numbers**.

HELICOPTER EFFECTIVE RANGE Distance a helicopter can flies and return safely, without running out of fuel. Effective Range is an important feature of the helicopter. In the Helicopter manual, range is calculated using speed on ground by the airtime. Record exactly what provided by the helicopter pilot or mechanic. A common theory is that observers tend to divide this information by 2 and record in the data field. For example, if the pilot says the effective range is 130nm, the observer divides 130 by 2 and writes down the effective range as 65nm. **This is incorrect**. Observer should record 130nm in the effective range data field.

Remember, effective range (aeronautics) is the safe distance the helicopter can fly between take-off and landing due to fuel capacity. The range can be seen as the ground speed multiplied by the maximum time in the air.

Debriefers to cross check if helicopter speed and how long it takes the helicopter to fly before returning. Make a quick check of time between H1 and H2 across all PS 2 pages to ensure it is close enough to effective range recorded. $D = S \times T$. Remember a 400m race in an Olympic is the total distance around a track and the track can have a radius of 50m. Likewise, the helicopter can be 20nm away from the vessel but really, it is the total distance that it is covering, that constitutes a range.

Just to give you an idea, a Robinson R44 helicopter has an effective range of 300nm.

The 2 questions observers should try the Mechanics

- 1. What is the cruising speed of the helicopter
- 2. How long can the helicopter fly without refuelling or running out of fuel?

Speed multiply by time can give an approximate Distance either in nautical miles or kilometres.

No. of VESSELS that the HELICOPTER SERVICES: (including this vessel): if there is a helicopter onboard, does it also assist other vessels in carrying out **fishing activities**? Then record the number of vessels serviced. If your vessel's helicopter flies over to the other vessel just to deliver or bring back other goods or staff (mails, requisitions, etc.), do not include the other vessel. Likewise, if observer vessel does not has helicopter onboard during trip but visits by a helicopter from another vessel, record this information on Gen 1 and Journal. What about PS 2? Can we record this in PS 2? Maybe activity code 13 and explain, example, drifting and waiting for helicopter from sister vessel. Use activity code 16, transhipment if the vessel is transferring goods, crews, by using the helicopter, etc.

Discussion that a code be introduced whether the purse seine is using Drone. Record Drones in journal and trip report – when they are using drone, search, log, setting and investigations.

POWER BLOCK AND PURSE WINCH MAKE AND MODEL This must record and obtained from vessel documents or from the engineer, etc. If obtaining from the documents, observers are encouraged to record exactly what is in the document. If the vessel document says power block make is M.H.T, record it as M.H.T even if you know that MHT could mean Marine Hydrotech.

FISHING GEARS

BRAIL CAPACITY Use the new brail type codes to indicate what type of brail it was (see notes and drawing at the start of the workbook. Record the brail with the **largest capacity** as Brail 1 (if vessel uses more than 1 brail) and record the type code. This should also be the same as in PS 4 when you indicate the brail type used during sampling. Record yes in live fish if the vessel uses JP or other brail type to brail live fish and processed the fish differently. At the start of brailing with fish still alive on the surface of the sack and they should treat as fish for canning, this is not live brailing.

If there has been changes to the brail, record the changes and the new brail capacity. Read the instruction at the back of PS 1 page 1

NET (Maximum Depth and Length) Make sure to get the correct units. M (metres), F (fathoms) Y (yards). **1 Fathom = 1.8288 metres** 1m = 1.094 yards.

Net Depth Use your experience to assist with the range of accepted values, not less than 200 meters or not more than 450 meters.

Net Length Accepted range value, 1300 meters – 2600 meters

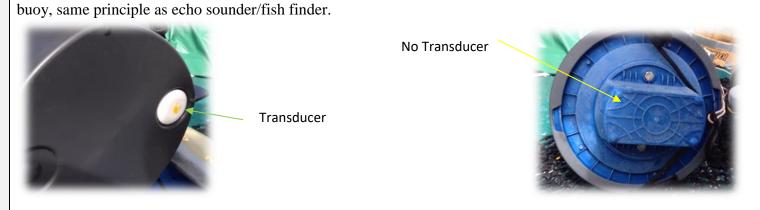
Net Mesh size – The net has a number of mesh size. Record the mesh of the main body of the net. Range of accepted value, **range values** 8 to 12 inch/ 20cm to 30 cm.

SPC database using data recorded by Observers.

Net depth not less than 100 meters and not more than 500 meters. Net length is between 1000 meters – 3000 meters.

Anything not in the range of accepted values Debriefers should question observers carefully by Debriefers.

Make sure circle Y or N. Dashes and Blanks. Debriefers are required to use a bit of common sense when debriefing this area of the form. Where an electronic have been circled N, sometimes, observers forget to dash the respective data fields so the fields are left blank. That is fine, but for consistency, advice observers to dash them. In a way, it tells us that the observer is aware or understands the types of information needed for those data field. It is encouraged to be a good practice, but should not penalise observers. The database accepts both dashes and blanks as blanks. Where an electronic circle Y, but some information are dashed, observers need to explain these dashes in the comments sections. Debriefers need to be aware that where there are information expected in a data field and the observer has difficulty obtaining the information and decides to put in a dash in the data field, the observer is required to explain the reason they put in the dash. This can also tell us about the problem surrounding the difficulty in obtaining the information. GPS BUOYS VS ECHO SOUNDING BUOY: Debriefers should check for observers' understanding of these electronics. A reference to Makes and Models and shapes may not good indicators of demonstrating their understanding. Observers should physically check the buoys, if they are onboard for presence of transducers at the bottom of the unit. Transduce is the unit that pick up what underneath the



NET DEPTH INSTRUMENTATION – record the information as found with the unit in the bridge, e.g. computers and gauges.

FISHERY INFORMATION SERVICES <u>WWW:</u> The website where it provides where the information came from. CATSAT is not a WWW. CATSAT or ORBMAP are software that vessels may use.

SST, Phytoplankton and Sea Height Data field. When observers circle Y in the WWW data field, record a website on the data field. Encourage observers to put a dash in the data field if circled Y and explain the dash. *Discourage the use of other information such as CATSAT or ORB MAP*, etc. as they are misleading information. These should explain in the comments section.

Better a dash and explanation in the comment section below so we know the problems involved in obtaining this information.

	If the vessel does not have anyone in the position write "Vacant" in the "Name" data field. Not in the comments section.
CREW LIST	YEARS' EXPERIENCE Note if the crew has less than 6 months, write 0 and provide in comments the months. It is better for the observer to make general comments on the crews who have zero years' experience in comments. For example, <i>five of the crews have zero years' experience, Their experience ranged from 1 to 5 months</i> . If the crew has 6 months or more write 1 year and so forth. 1 year and 5 months as 1 and 1 year 6 months as 2 years, etc.
	If crews are more than the space provided, use the 2 nd form for this and write the extra crews in the space provided. Make sure you leave a comment in the 1 st form; preferably, the last line of the crew list section indicating more crews listed in second page.
	Observers also request to write down their name and trip id and vessel name on the attachments, in case it becomes detached from the Trip Data. It is also good to number the attachment, e.g. <i>Attachment # 1</i>
Comments or Drawing of Well Pattern	COMMENTS OR DRAWING OF WELL PATTERN This section can use for any comments about this page and the drawing of well pattern. If observer obtains a copy of the well plan as an attachment, it is best to refer to the attachment while saving the space for the comments
EPIRBs	Record only the external ones; those that are displayed around the vessel. Do not count any other EPIRBs fitted inside life rafts, etc. Do not include SARTs. SARTs are Search And Rescue Radio Transponders
Life rafts	Record total number of EPIRBs and how many with expired batteries separately in each data field. There is no dash in this data fields . Record one on the data field, life raft has a due date (D) or last date of inspection (L) or not displayed (ND).
Data Field Area	displayed (ND). PS 2
Trip Start or End times	*PS 2 Page 1 time of the 1 st activity recorded in the first page should align with start of trip time in PS 1 Page 1. *PS 2 last page time of the final activity in the last page should align with end of trip time in PS 1 page 1. * Important
Minimum of 3 entries per day	<u> </u>

Making entries 6 hourly	The rule of making an entry every 6 hours agreed by the November 2019 workshop to remove. Observers need to ensure they have a								
or less than 6 hourly	minimum of 3 entries per day. Debriefers do not penalise observers if time between two entries are more than 6 hours.								
J	Example of activities on PS 2, 1 entry at 0600 (investigate free school), then 0700 (search again), then 1430 investigate free school,								
	1450 search again and 1815 drifting at day's end is okay. See examples below.								
	O600 02° 11.350' S 142° 30.350' E PG 2								
	O650 02° 18.760' S 142° 45.110' E PG 8								
	0700 02° 18.333' S 142° 45.550' E PG 2								
	1430 02° 55.350' S 143° 20.350' E PG 8								
	1450 02° 56.550' S 143° 20.550' E pg 2								
	1815 03° 10.350' S 143° 30.350' E PG 11								
Drifting during daytime	When vessel drifts during early hours of daytime, observers are encouraged to refrain from using activity code 11, even the vessel will be drifting for the whole day. In this situation, activity code 13 is the correct one to use. Activity code 11 applies in the evening as last entry. For example if the vessel finishes a FAD set at 1000, then decides to drift around the FAD area, maybe to make a set on it again the next morning, code 13 can be used at 1000 and at 1800, record code 11. Remember, when activity code 11 is used, there should not be any other activities entered for that day. Code 12 is FAD being actually tied to the vessel Drifting within the vicinity of the FAD put code 13 and specify the reason for drifting in that particular area. Code 14 is drifting with Fish aggregating lights. If no fish aggregating light used, use code 13 until next day activity.								
Excessive entry	This refers to making entries of the same activity without activity change, for example code 2 and 2 again or code 9 and 9 again.								
Activity codes Logical	This refers to the sequence of activity codes. Do the activities make sense? Did the observer made the necessary entries and used the appropriate activity codes? The times of entry should not use to determine the logical sequencing of activity, e.g. 6 hours records should not use, or 2 hours or 3 hours, etc. This base on the activity sequence only. E.g. activity code 10D and 15D, 10D and 15D, this is not logical, as there should be another activity such as activity code 2, 3 and 13 be used between each 15D and the next 10D. Another example, 2 – 1 (searching, then a set). There must be an investigation, code 9 or 8 before a set. However, in situation where observer enters activity code 8 and during debriefing, it discovered to be activity code 9, it is still a logical code because the activity applied accordingly as required. The observers are not doing the right thing, 8 and 9 are very clear and should not mix up. Debriefers can correct the activity code during debriefing base on school association and other related data fields.								
Making changes between	If the observer has decided to make an investigation activity to say either activity code 8 or 9, the debriefer requires making sure they								
Activity Code 8 and 9	ask the correct questions to validate the call. This is if there was a floating object or animal (live) such as whales or whale shark associated with the primary gear, net in this set.								

	What made the observer to make the call to say what they said? Alternatively, how did they come up with the call? Remember, the
	observer was there. If the observer had made a genuine error or has difficulty to make the decision, debriefers need to explain to the
	observer.
	For example, if a whale shark was inside the net during set and the observer said it was a free school, what made the observer to make
	the call to say it was a free school? Did the observer sighted the RHN before the set starts, after the set, during hauling net or brailing
	fish? Was the observer scared of reporting this as a violation? Was it a genuine call?
	Debriefers need to assess the data presented to him and say whether there need to be changes or left alone. If there is enough evidence
	to say the call should have been a floating object call, the debriefer cannot penalise the observer for not making a Gen 5 entry as well.
	Remember, that change done after the trip. However, a Gen 5 entry be entered and the debriefer should assists the observer to record
	the necessary details.
Unique activity code 8 &	Debriefers to check on the activity codes 8 and 9. Do they actually represent the school association type, free school or floating object?
9	With the case above, once the observer is penalised and the data corrected, the data should not judge again under this section.
9	
	Activity code 8 will only have school association 1 and 2. The rest of the school association falls under activity code 9.
A .: '. 1 1.0	Use activity code 16 to indicate when the vessel is involved in any transhipment activity or bunkering. Transhipment (PS 2) means any
Activity code 16	transfer between vessels, not only fish. Observers to make sure they are record in the Gen 1 form. In Gen 1, if the vessel is involved in
	any transfer, but not fish, record the information on the sightings section. If the vessel is involved in fish transfer or bunkering, record
	the details in the bottom section of Gen 1. Note that on PS 2, transhipment is any type of transfer while Gen 3 specifically mentions
	fish.
Activity code 1 crossing	If a set takes place in the evening and is likely to continue to the early hours of the following day, observers should make an entry at
over midnight (carried on	around 2359 to indicate another activity to close off or end the set. Possible entries would be activity code 13 or activity code 4
to next day)	(breakdown). This is really a database thing so that it can record the set details for that day; especially when it comes to entering the set
	details in PS 3. A new PS 2 form use after midnight; mostly it will start with Activity code recorded in the last PS 2 and make
	comments. Record the same start of set date and time on the new PS 2 form. Record this and any information in the Journal.
Other Activities crossing	If the observer is observing an activity that takes place in the night and will continue over midnight (for instance, bunkering at 2200
over midnight	activity code 16), he or she will have to use a new PS 2 form after midnight. If the observer intends to continue observation throughout,
8	they can start with the new PS 2 form and make an entry at midnight or after midnight and record the first entry for the new PS 2 form;
	which will be the last activity made the previous day to be the first entry. In this case, Activity code 16 recorded at 2200 will be the
	first entry for the new PS 2 form if bunkering is still taking place.
	Instendy for the new 15 2 form it outlikering is sent taking place.
	Debriefers to make some comparisons on time of entry between H1 and H2 to cross check with Effective Range in PS 1. A quick
	calculation of $D = S \times T$ can give an idea. For example, if the time between H1 and H2 is 2 hours and the helicopter speed is at 90
	knots, then the helicopter made a distance of 180 nm for that flight. If the observer has recorded 60 nm in PS 1 as the effective range
	then this is clearly not correct (we have proven that it is more than that by our calculation) See example below of helicopter times. The
111 % 112 and an	
H1 & H2 codes	longest flight time is 2 hours.

H1 & H2 codes	For every H1 that takes place, there should always be a comment to say what the purpose of H1 was. To search or make an errand, assist in set, etc. Code at the front says searching while instruction of H1 and H2 usage can use in searching, vessel visit, rescue etc.						
	0600 02° 30.150' S 141° 30.150' E PG 2 5 S 270 - -						
	0710 02° 40.350' S 141° 33.150' E PG HI 5 S 270 TO SEARCH						
	0750 02° 44.150' S 141° 34.150' E PG H2 5 S 270						
	1005 02° 55.150' S 141° 42.150' E PG HI 2 C 270 TO SEARCH						
	1205 02° 55.150' S 141° 50.150' E PG H2 2 C 270						
	1510 02° 57.150' S 142° 10.150' E PG 16 2 C 270 - - BUNKERING						
	2005 02° 55.150' S 142° 50.150' E PG 11 2 C 270 - -						
Deployment of FAD During investigations of floating objects Code 17	When a vessel investigates a floating object and then decides to deploy a FAD onto the same object, this consider servicing and code 17 should apply after activity code 9. Any changes (removal or additional changes) are recorded in the comments section. The object number then remains the same for the original object. A Gen 5 form entry must record, which the first entry is when the vessel started investigating (code 9). If the same object is investigated again in less than 4 hours after the last investigation, there is no need to make another entry in Gen 5. The encounter is recorded in your PS 2. The instructions at the back of the Gen 5 form says "Complete a GEN 5 entry for every activity code '9' or '10D' recorded on a PS-2, related to any FAD or other floating object described in the 'Floating Object' list on the workbook codes page, except if for same object encountered unchanged within four hours of the previous encounter						
10D	If the vessel deploys FAD during searching or transiting, activity code, 10D is applied and Gen 5 entries filled. In addition, all 10Ds' allocate a new object number. The How Detect and School Association should dash for both data field.						
Filling up more than 1 PS 2 form per day	Usually with vessels that have helicopters on board or are involved in multiple FAD deployments, there are chances that more than one PS 2 forms used a day. Observers are required to make comments on the last line of the form to indicate additional entries for the same day recorded on the next page and in the second form to indicate that the entries are part of the previous page. This comment should be in the first row of the second form, dash all the data fields and begin new entries in the second row of the new form. All Header details recorded on the new page numbering. The START OF DAY (Ship's and UTC date and time) are dashed. Continue with tally of sightings on that new form (for the convenience of the observer). Gen 3 questions answer for both pages and they should be the same answer. Debriefers just make sure the tallies add up for the day.						
Sea states and wind speed and directions	Sea states aligning with wind speed – the guides at the back of the workbook and the PS 2 are only guides. Ask observers when you see that wind speed and directions do not change much every day. Remember, observer is correct, but just make sure this does not happen throughout the trip. Again, if it happens, it is still good to ask the observer about it.						

	Debriefers need to confirm this with other forms. e.g. PS 3, Gen 1, Gen 2, Gen 5, Gen 6, etc. Pay particular attention to set days when
Gen 3 question	the question has been answered NO for the day. Was there any misreport or inaccurate reporting (calculate the 10% tolerance
Contragation	(differential) of estimates; especially for large catch. Were there FAL, OCS or DTS of tuna? For small catches, this 10% does not really
	matter.
	When filling more than one PS 2 form, Gen 3 question can answer for both pages; both forms should have same answers.
	Tallies of sightings are to give an idea of the free schools and floating objects in the fishing ground. Observers are required to tally
Tallies of sightings	floating objects that are in the water. Fads or Rafts deployed should not be included as part of your tallies at the time they are being
	deployed. This is only floating objects and schools sighted by observers including investigated Fads and schools.
	If filling more than one PS 2 forms for a particular day, the tallies of sightings should record per PS 2 form for the day. Continue with
	tally of sightings on that new form. Debriefers just make sure the tallies add up for the day.
	If the vessel retrieves Fads or radio buoy during set time, mention the actual time the activity took place in the Journal. In PS 2, hold
Retrieving FADs or	off until the set has been completed (according to observer's understanding of set being concluded). Then record the information of
Radio Buoys during set	15R and 10R before searching or drifting, etc. Record 15R and 10R and separate by them with couple of minutes before the next
time	activity. E.g. if the vessel make a set at 0445, retrieves the Radio buoy and FAD at 0530 and 0531 respectively, record these times in
	the Journal. However in PS 2, hold off until set finishes, say around 0940 and preparations to start searching again. If searching starts
	again at 0950, observer can record 15R and 10R say around 0945 and 0947 before code 2 at 0950. In PS 3, the end of set, record next
	activity start as 0945 to mark the end of set.
Activity codes recorded	Activity codes 2, 3, 4, 5, 6, 13, 16 can be recorded consecutively if that same activity happened throughout the day
consecutively	
	Comments are not necessary for every activities taking place. However, some activities must have comments. Every activity 1,
Comments	comment record the set #. H1 should have comments. Activity code 9 with school association 9 must have a comment (indicating type
	of object), e.g. drifting FAD, activity 2 in the evening as final record should have a comment to say why searching through night.
	Activity code 13 should specify, activity code 16 should specify whether bunkering or transhipping. Activity code 6 to specify name of
	Port and activity in port. Activity code 9 school association must also have a comment to specify the floating object. E.g. Observer's
	own vessel drifting with fish aggregating lights and make a set early in the morning. Activity code 18, activity code 3, etc.
Trial Run in Port	Possible scenarios. If vessel completes transhipment and then do trial run, captured in Journal only
	If vessel arrives in port not for transhipment but for fixing and do trail runs, captured in Journal only
	Code 18 is used when the fishing vessel drifts to engage in an activity while it is not actively engaged in Fishing Operations (no
New Code (Code 18)	physical manning of fishing operations such as crow's nest empty, only one or two watchmen in the bridge, maybe involved in
` '	transferring of crews while on the way to port, etc.)
	If still active in fishing operation, while drifting and involved in other activities (such as transfer of joining or disembarking crews,
	picking food supplies, etc.). Other activity codes can apply
	Code 13 does not specifically refers to vessel drifting so observers can use it when other codes are not applicable while the vessel is in
Activity code 13	fishing mode.

	An example is a vessel is on its way to port, but has not covered the net and not lower the main boom; transit code cannot apply, reason being they want to deploy FADs on their way. If it is just steaming while deploying FADs but observer cannot say it is searching either, observer can use code 13, example, 10D, 15D, 13, 10D, 15D, 13. Remember, the vessel can still be moving and still use code 13. Another example is after a morning set and the vessel is drifting throughout the day.
Activity code 2 vs code 3	Observers have to be aware when their vessel completes the final set and is now steaming back to port. When activity code 3 is used (when vessel starts transiting after set completed), observers should be aware that the net is to be covered and main boom lowered; where the gears are not readily available. Otherwise, searching code or use, other code while still in the fishing, ground and net not covered or boom lowered. If the vessel is fully loaded and start heading back to port, use code 3. While transiting, often vessel deploys Fads, record accordingly when activity change on PS 2.
Crossing Prohibited Areas of Fishing	When crossing non-fishing zones or prohibited areas, observers need to be aware to use activity code 3 (Transiting code), the vessel need to cover the net and lower the main boom. In other words, the vessel has to demonstrate that the fishing gears are not readily
7 Heas of Fishing	available if a sudden school of fish appears. There are situations that vessels may lower the boom while net is not covered or cover the
Use of Activity code 3	net (happens a lot) while boom has not been lowered (due to other activities on deck or short transit period). That is still okay. Observer need to provide more information in the journal; especially comments on why they made the call if the activity is unusual. E.g. to say transit and use activity code 3 when only the net is covered but the boom is not lowered. For the stability of the vessel and safety, main boom be put in a position to accommodate vessel stability and safety; this is ok and record on journal. Debriefers need to be aware of the Vessel Day Scheme; where vessels may try to record any movement as transit (3) in order to claim non-fishing days.
Breakdown / Bad weather/ Transit	Use Activity code 4 (breakdown) or activity code 5 (Bad weather) and then activity code 3 if the vessel starts transiting to port to repair or pick up net or parts that is immediately needed to fish during that trip or seeking shelter from stormy weather.
Positions	Make a quick check on all positions. Sometimes, positions and distance travelled do not match. It is becoming a Database issue with trips not being completed or closed off until these positions have fixed. Example, at 14:00, vessel position was 00° 14.234' S, 147° 33.154' E and at 18:00, the vessel is now at 02° 05.155'S, 147°20.123'E. This shows vessel travelled at more than 100 nm in 4 hours. Remember, it is a fishing boat and not a Rocket! The vessel cruising speed is a guide in this area. Example, vessel cruising at 12 knots means that the vessel will travel 12 nautical miles in one hour. This can happen when observer read the GPS positions incorrectly.
Ships Time vs UTC	Use Ship's time all the time. Record the UTC date and time from GPS at the start of the day, first entry on PS-2.
Data Field Area	PS 3
3 decimal place	For consistency, it is best to round up and record all estimates to 3 decimal places for the duration of the trip. For reference, metric tons are recorded up to 3 decimal points (1mT = 1000kg) so like 0.001 is 1kg. Use 3 decimal points throughout your calculations.
Dashes and zero	Although they all mean the same in the database, for consistency, where a data field requires a digit, it is best to put in a digit and zero (0) is also a digit. Where it is not necessary to put in digits put a dash. For vessel records, record 0 if the vessel record 0 in the log sheet and put a dash if the vessel has not recorded anything.

	free school say, 80mT. requires and If no catch a	f a data field ask for a number but difficult to put in the correct number, put a dash and explain the reason for the dash. For instance a free school with all YFT species. In the % section, observer records 100% but in the number section, a dash will be more appropriate if ay, 80mT. Similarly to discards or retaining of bycatch. If estimate of weight is given but it is difficult to put in number, a dash equires and explains what the dash mean. If no catch at all, Observers need to record only up to set sequence. The rest of the form and data fields leave blank. Just fill only the Brail Capacity and sum of brail is 0. Other data fields are blank SET SEQUENCE TIMES EVENT: If \$SI OBSERVED START OF SET BEGIN PURSING END OF BRAILING END OF BRAILING END OF SET (NEXT SACK ONBOARD ACTIVITY STARTS)								
	TIME:	(Obs Time Sighted)	1045	1053	1118			1320	Began brailing and end is dashed. SSI observed is	
	dashed too									
	h	sum of all	T-1-1		T CATCH		TAL TUNA CAUG	UT		
	brail capacity	hrails	Total catch	ов: 		YES or NO fo			calculationsinclude all the tuna in this th, whether retained or discarded	
	(5 mT x	0) =	0 mT		KIP-	YELLOW	FIN		BIGEYE	
	Type 1 brail (see PS-1form)	(see PS-4form)	bycatch (see below) => J		ALL icm) LARG	iE (> 75 cm)	SM ALL (< 75 cm)	LARGE (> 75 cm)	
	Type 2 brail		= Total tuna	YES	(%) YES	(%) YES (%) NUMBER	YES (%)	YES (%) NUMBER	
	(mT ×)	m ⁻	NO	NO	NO		NO	NO NO	
	If small cate zero tuna.	ch (all byca	atch and n	o tuna), r	ecord and	d in total c	atch, record	l the weig	ght of bycatch, minus bycatch weight and you have	
No Brailing but fish with	Record the	time the sa	ck brough	nt on deck	as end c	f brail, sad	k onboard.	Go back	a minute or two to indicate that as start of brail. This	
sac									to convert this sack to approximate brail fullness.	
2 types of brail used.	Calculate th	e catch for	each bra	il separate	ely, add t	hem togetl	er and min	us the by	catch to give the total tuna caught.	
Start of set – vessel log	Cross check Sometimes, sheet, it is re Observers n vessel to red because the Observers d	with obse observers ecorded in eed to reco cord set tin logsheet re on't need	rver on he record when the states in UT ecords are to check to	ow the venat is in the format. Int of set to time. A ends in the vessel	ssel start ne deck lo ime the v s such, a ne databa logsheet	of set ting which is ressel reconny conflictions.	ne obtained is recorded in the ing recording A PS ILogs	from the in ship's in SPC/FFA ng by obs	e vessel deck log or the SPC/FFA purse seine logsheet. time but in the South Pacific Regional Purse Seine log. A Purse Seine Logsheet. It is a requirement for the servers and the vessel can easily retrieve and check ry set but at least once a day during set days to confirm atch, well filled, set times, etc.).	

	USA REGISTRATION NUMBER IN COUNTRY OF REGISTRATION				FFA TYPE APPROVED ALC (YM) ? NUMBER OF FADS USED TENDER VESSELS USED? (YM)								
	REGISTRATION NUMBER IN COUNTRY OF REGISTRATION 1215734		INTE	INTERNATIONAL RADIO CALLSIGN ALL DATES AND TIMES MUST BE UTC / GMT WDE6712 ALL WEIGHTS MUST BE METRIC TONNES									
		T		rc or	SET POSITION		эснос		T .	ALE WEIGH	RETAIN	ED CATCH	
	MONTH DAY	CODE	LATITUDE DDMM.MMM	7 8	LONGITUDE DDDMM.MMM	E	ASSO	C START	SKIPJACK	YELLOWFIN WEIGHT	BIGEYE	OTHER SPECIES NAME WEIGHT	
	02 14		00°-26.181'	s	169°-17.273'	E	2	23:53	0	45	0	NAME WEIGHT	All times in UTC or GMT. This includes set
	02 15 02 15		00°-27.698'	S	169°-14.572'	E	2	05:27	0	55	0		
	0 16	-	00°-28.940°	S	169°-14.786'	E	2	21:56	0	60	0		times (refer vessel set times)
	02 17	-	02°-07.445'	s	167°-04.064'	E	4		0	0	0		
	02 18 02 19	-	02°-10.409' 02°-13.727'	S	167°-01.815' 166°-52.161'	E	4	18:16	23	1	1		
SKUNK SETS & ESC			ite ESC wl							field das	hed. Fa	ate code ESC sho	ould be used only when tuna is seen escaping
DVF	DVF mu onboard Observe	ust reco left in ers sho	ord in the o	com wa an e	nments sec ter to disca stimate of	tion ard the	n. Roor g	emem give av nage	ber tha way. before	-		_	ne calculation. This is for fish not brought cord of this in Gen 1 form as well (Fish
Estimation of catch to percentage	Observe	rs nee	d to ensure	e bro	eakdown ii	n po	erce	ntage	equate	s to 100	%.		
SSI (landings and interactions)		SSI <i>landed and interacted with Primary gear (net) only</i> record in PS 3. Use the interaction codes provided. Sighting and interaction with vessel record on Gen 2 interaction and sighting.					n codes provided. Sighting and interaction						
Weights and Numbers	For large size species such as sharks, RHN, Dolphins, etc., a number of the animals would be better. The weights can be automatically generated (SPC Database). The issue here with the Database is that, when observers make an estimate of weights for large fish, sometimes the weights are too high and the database system would generate this to be equivalent to large number of that particular species; causing conflicts between observer numbers and system generated numbers. For example, if there was a BLM landed and observer record as 0.2mT, the system would say this is the estimated weight of 3 BLMs landed. To be safe, record only the number and dash the weight section. Let the scientists figure out the weights. Probably need to check this with people that use the data, I would think it would be good to record the number and estimate of the total weights?????												
Data Field Area										PS 4	Forms	S	
2 brail types used	Use a se	parate	PS 4 form	ı foı	r each brai	l ty	pe u	ised d	uring b	railing a	nd gral	b sampling.	
	If a set r	equire	s more tha	n o	ne PS 4 for	rm,	rec	ord ea	ach of t	he lengtl	n frequ	ency and sample	s per each form.

Use more than one PS 4 form per set	The total number of brails brought onboard record for each of the PS 4 form filled. Example, 1 st form 24 brails, 2 nd form 7 brails, etc. The total brails is 24 on the first form and 7 on the second form. Note that 24 brails assume that every brail sampled 5 fish to fill up the first form.
	The number sampled, can record on each form. This process used to cross check with the entering of data for any error during data entry. The sum of all brail is calculated for each form. This apply to total brails brought onboard and sum of all brails calculate for each form. Therefore, add all sum of brails for each form, add them up and transfer to PS 3 record on sum of all brail data field. Brail times is the same time to fill up more than one PS 4 form per set, brail times is the same on all pages used for that set. Example, if same brail (brail 1) used on grab sampling and there were three PS 4 forms used, brail times (start and end) is the same for the three forms because it is the same brail. An example is 1 st form, brail starts at 1000 hrs and ends at 1025 hrs, the 2 nd form brailing starts at 1030 hrs and ends at 1045 hrs and 3 rd form brail starts at 1050 hrs and ends at 1115 hrs, observer should record brail start time as 1000 hrs and brail end time as 1115 hrs on all three forms.
	If 2 different types of brails, brail starts and end time record for each form. For instance, if live brail used first at 0950 hrs and ends at 1030 hrs, this should recorded in the first PS 4 form. Then vessel uses a long handle brail at 1050 hrs and finishes at 1125 hrs, this should record as start and end brail times for the new PS 4 form filled for this sampling. In PS 3 (Start Brail times would be 0950 hrs and end of brail time should be 1125 hrs (start of brail time for the first form and end of brail time for the second form)
LENGTH MEASUREMENTS	All lengths including average lengths rounded down. An example 76.7 cm is 76 cm and 104.9 cm is 104 cm.
TARGET NUMBER OF	While it is standard protocol for observers to target 5 fish per brail, observers can decide to change this and target 3 or 4 fish as their
SAMPLE	target sample; especially with large tuna that are difficult to get 5 from every brail. Observer should try and maintain 5 fish per brail throughout the sampling and brailing operation and try to make up to five fish in the next brail if drops below 5 in the last brail.
OTHER SAMPLING	Record only the code for "other samples" at the back of the form (DA,DT, BS, SS and LB)
CALIBRATE THIS SET	Observers are required to make an effort to check and calibrate their measuring instrument during each set.
BRAIL 1/ BRAIL 2	Cross check, the brail number ticked to information in PS 1 and calculation in PS 3. Sometimes, observers confuses themselves during live fish brailing and normal sampling.
Data Field Area	PS 5
Multiple wells used per	If vessel uses more than one well during a set, record the MT placed in each well in separate lines in the form. Example, if 100mt
set	caught in a set and vessel uses S3, P3, S4 to store the fish, the observer should record one line for S3 catch, one line for P3 catch and one line for S4 well.
Records of MT	All records should be in whole numbers and should be from observers themselves. Observers can use vessel records if any transfer happened but observer not able to provide any information, e.g. partial transfer between wells.

Recording Catch less than 1 MT	If vessel caught catch less than 0.5mt, this should record as '0' in the form (metric tonnes moved) and in the comments section, observer says, 0.4 MT, etc. If 0.5 MT or more, observer records 1mT and notes down the actual estimate, say 0.7mT and so forth in the comments section.
Comments	Make comments if necessary (e.g. about the catch, or the school or species, etc.). One example is all catch are skipjack.
Data Field Area	GEN 1
Sightings	Record vessel sighted in the area of fishing. While AIS provides a lot of information about the sighted vessel, observers are also encouraged to physically, observe the vessel names, IRCS and any license written on the side of the vessel if possible.
Fish Transfer, Fish Dumping, Bunkering	The bottom section of the form is required to provide information regarding only the three activities stated here (Fish Transfer, Fish Dumping and Bunkering). If the vessel is involved in transfer of food, crews, parts or fuel drum, this will be recorded in the sighting actions as they are not part of the three activities stated. Transfer of fuel in 200 litre drums are not bunkering. This is part of requisition being transferred and be recorded in the sightings section as well. In Longline, baitfish can be recorded in the section of Fish transfer as well if vessel is receiving or giving baitfish to another vessel (OG or OR)
Date format	Debriefers should be aware that the data field requires MM/DD.
GEN 1 Supplementary	This is a supplementary form same information at the bottom section (Fish Dumping, Transfer of fish or Bunkering).
Data Field Area	GEN 2 and Gen 2 Supplementary
Species of special interest - VESSEL interaction and Sightings	All SSIs interacting with non-primary gear (check the lists back of the forms) or sighted should be recorded in this two forms if encountered. Recording sea birds; due to the number of sea birds in fishing grounds, observers can only record bird sightings if interacted directly with the vessel or landed on deck.
Data Field Area	GEN 3
List of activities in Gen 3	Check for observer understanding of all items listed in Gen3. Sometimes, one incident can have more than one tick in Gen 3. For example, if vessel lands on deck a whale shark, si—a and wc—a can both be ticked. If the whale shark is not recorded in the log sheet, LC-d can also be ticked in this scenario. LC-a; Refers to vessel estimate of catch (under reporting, over reporting or no reporting of set catch for some reason — say less than 1mT). LC-b: Refers to vessel inaccurately recording or not recording target species discards. Example, mix species set of both YFT, BET and SKJ, the vessel recorded SKJ and YFT discards because they have included YFT and BET together to become YFT discards (inaccurately recording). If vessel records no discards of target species, this also comes under this heading. LC-c: Refers to retained Target species recorded inaccurately LC-d: Refers to vessel not reporting any bycatch retained or discarded (discarded sharks but not reported or retained RRU but not recorded) LC-e: Refers to vessel wrongly, reports retained bycatch (by either species or catch estimates. E.g. RRU retained as MSD or ESC retained as WAH or 5mT retained as 1mT RRU)

	LC-d: Refers to vessel wrongly, reports discarded bycatch species either by species or catch estimates . E.g. RRU discarded as MSD or 5 MT RRU discarded as 1mT RRU.			
Signature	Observer to sign off with a pen			
Brief summary of	Observer should write clearly in this section. If observer writing is too small or difficult to read, advice observer to write in upper case			
incidents	or capital letters.			
	When writing a brief summary of incidents that happened, write the incident code and state the journal pages and a brief description. E.g. WC-c – Fish on FAD during FAD Closure, journal page 6, 8, 9 11. Vessel made sets on whale sharks four times. All whale sharks set on were sighted before the set started.			
Vessel Gear Type	Observers to write the gear type of the vessel. Purse Seine, Longline, pole and line or the codes (PS, LL, PL). Not 1 for single purse seiner.			
Reporting of Critical	Understand what critical incidents are.			
Incidents	Debriefers need to ensure observer provides information based on the 5 WH Principles (who, where, what, when, why and how)			
	Gen 3 can be sent even before full debriefing is completed or even started or during pre-debriefed or if very critical, not being debriefed.			
Journal Page Numbers	The journal page number refers to the first journal page number the incident first appeared and documented. If same activity continues			
	throughout the trip and it reported in the journal, other page numbers can be written in the brief summary.			
Data Field Area	GEN 4			
Use of form	This is optional. Observers that feel like they can use this form may decide to collect information regarding this form.			
RGKTs	Debriefers to check for observer's general understanding of the form. This can be asked as a RGKT questions. RGKT. What is the use			
	of this form or, what types of information can be collected in this form.			
Data Field Area	GEN 5			
Date & Time	Time of entry should be the time stated on PS 2 for Activity code 9 or 10D, not set times even if the floating objects is involved in a			
XX7'.1' 4.1	set. Set times should be in comments if the object was investigated and set upon.			
Within 4 hrs	If the same object sighted and investigated again in less than 4 hours from last investigation, there is no need to make an entry on Gen			
	5. However, in the comments section, observers should write the object number in the comment section (e.g. object #007 – refer Gen 5 page 2 for information on object #007			
Tree or log	If the vessel finds a log and deploys only the radio buoy and steams off, the Fad as found is 3 and also the Fad as left is also 3			
Tree or log (converted	If the vessel finds a log and then decides to deploy raft or FAD or put additional materials onto the log. The FAD as found is 3 and			
into FAD)	FAD as left should be 4.			
Deployment Dates and	This only refers to deployment date and position of the FADs. It is not talking about deployment of radio buoys and tied to the floating			
positions.	object during time of investigation.			
	For 10D entries, a deployment date and position is entered, Fad as found is dashed and in Fad lifted, do not circle YES or NO. Leave it			
	as it is. There will be an additional code of NA requested here for use. If you circle YES or NO, it seems we are doing fine and			

	therefore very hard to flag this issue. Leaving it as it is will clearly show the data users that this data field does not suit this scenario so easy to make changes.				
Changes /comments	Describe any changes or comments to go with your entry. Example, if a log has no radio buoy (RB) during investigation and then your vessel deploys a RB, the RB deployed and the number should be in the comments. The radio buoy number data field at time of investigation is dashed. The next time you visit that object again, then you can record the radio buoy number you deployed earlier.				
FAD Materials and	The Code 17 'Others' can be used to describe materials used as attachment as well as main materials. Example, if net uses as main				
Attachments Codes	material to wrap corks/floats, this considered as main material and because net is not listed in the main material, the most appropriate code is "Others" which is under the attachment. Code 10 (unknown) cannot be used, as we know about the net, corks/floats.				
Beacon Serial Number	When radio beacons encountered, observer need to record the beacon (GPS buoy or Echo Sounding buoy) serial number. If the serial number is before by some pre-fix and numbers, make sure record all the details. E.g. DSL+123456 (serial number).DSL is the pre-fix. Radio Beacon and Radio buoy mean the same thing.				
Data Field Area	GEN 6				
Vessel Name	Observers are required not to write "Host Vessel" if their vessel was involved in a Marpol incident. They should write the full name of their vessel				
Type of Vessel	Use the vessel and aircraft code in Gen 1 to indicate the vessel				
DNE	If there was no Marpol incident recorded by the observer, the questions at the bottom of the form should be answered. This is not a DNE section in debriefings. The 2 questions about 1. Was there a Poster on board and 2. Photo frame				
Abandoned Gear	Removing Radio buoys from FADs or logs and releasing the object is not abandoning. Abandoning refers primarily to the vessel's own fishing equipment that the vessel deliberately leaves it in the water without any intention to visit it or retrieve it again.				
	SCORE SHEET				
Score Sheets Points awarding	Scoresheets points allocated are either, the observer scores full marks or zero. Debriefers are awarding other marks; especially when there is a retrieved data. It is still an error; even though retrieved. Example, if the full marks is 3 points and the observer makes an error and the Debriefer retrieves it, the debriefer then allocates 2 marks beside it. It is still 0 mark. The observer has other trips still to be made where he or she can score the full marks after being corrected. Only CC and X factor are the two awarded with full marks. Important to make note by Debriefers. This came out of this workshop. For consistency, please apply this to the score sheet points awarding.				
	JOURNAL				
New Day / New Page	Every new day entry should start on a new page				
Chronological Order	Order of events recorded should be in sequence as it happened. What happens first should be recorded first				
Time	Mention time that an event occurred. If not the exact time but as near to the time as possible.				
Date	Date as it happened. Dates are given as, Day of the week, the day of the month and, the month and year. Example, Friday 04 th October, 2019				

Trip ID	Record trip on all page header. There is one or two pages photocopied so at least the trip ID refers to that particular trip the incident			
	happened.			
Page Numbering	There is no standard protocol of writing page numbers. However, it is good practice to write page numbers similar to how we number			
	the forms, page X of XX			
Recording events	Journals should be documented using pen (ballpoint pen)			
Signatures	For security measures, recommend that signatures to sign off end of each day entry should be at least one line after the final entry f			
	the day. This is to avoid additional information that might come from different sources.			
Information Provided	Debriefers to cross check that each event referred to journal from the data forms must be recorded in the journal and must provide			
	additional information			
Sufficient Information	Debriefers to be mindful that sufficient information refers to the types of information that should mention in the observer journal. For			
	instance, when reporting a critical incident, the time, date, where, what, who, why or how it happened is expected to be mentioned by			
	the observer. That is sufficient. If the observer comments about the weather, it does not need such information as above to mention.			
	Check for information that sufficiently provided because of its significance or importance.			
Legible	Make sure it is easier to read. Write clearly and neat so other can read journals.			

Attachment 1.

ISO (alpha 2) Country Codes	MT Malta	Observer Programmes	Programme Code
AS American Samoa	MH Marshall Islands	Cook Islands	СКОВ
AU Australia	NR Nauru	Federated States of Micronesia	FMOB
BZ Belize	NL Netherlands NZ New Zealand NC New Caledonia	Fiji	FJOB
CK Cook Islands		French Polynesia	PFOB
CA Canada		·	
EC Ecuador	NU Niue	Kiribati	KIOB
SV El Salvador	MR Northern Marianas	Marshall Islands	MHOB
FM Fed. States of Micronesia	PW Palau PA Panama PG Papua New Guinea PH Philippines RU Russia SB Solomon Islands TK Tokelau TV Tuvalu TW Chinese Taipei (Taiwan) US United States	Nauru	NROB
FJ Fiji Islands		New Caledonia	NCOB
FR France			
PF French Polynesia		Palau	PWOB
GU Guam		Papua New Guinea	PGOB
ID Indonesia		Solomon Islands	SBOB
IW International Waters			
JP Japan		Tokelau	ТКОВ
TO Kingdom of Tonga		Tonga	ТООВ
KI Kiribati		Tuvalu	TVOB
KR Korea	VN Vietnam	Vanuatu	VUOB
LT Lithuania	VU Vanuatu		
CN Mainland China	WF Wallis and Futuna WS Samoa	Western Samoa	WSOB
MY Malaysia		FFA (US Treaty	ТТОВ
		POA (FSMA Arrangement)	FAOB