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3rd Meeting of the Southern Indian Ocean Fisheries Agreement (SIOFA) Scientific
Committee

20-24 March 2017, Saint Denis, La Reunion

Cook Islands Vessel Seabird Mitigation Plan

Relates to agenda item: 6.2

Working paper Info paper

Delegation of Cook Islands

Abstract

A full Vessel Seabird Management Plan (VSMP) has been in operation on Cook Island vessels since 2012. These measures were adopted to ensure there is now zero risk to seabirds from the fishing operation, and follows the approach successfully adopted for factory fishing vessels in New Zealand. This VMSP is part of the Cook Islands BFIA.

Recommendations *(working papers only)*

1. The Scientific Committee note the VSMP that is in operation on Cook Island vessels.
 2. The Scientific Committee recommends that VSMPs are submitted for all fishing operations in SIOFA.
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Vessel Seabird Management Plan (VSMP)

FV Will Watch

February 2012



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Purpose and Rationale

Purpose

The purpose of the Vessel Management Plan (VSMP) is to ensure that:

1. Seabird mortalities are mitigated by reducing seabird interactions with deepwater factory trawlers
2. Your vessel has robust, documented seabird interaction mitigation procedures in place, including:
 - a. Having at least **two Seabird Scaring Devices on board**, one deployed at all times, and,
 - b. Managing offal discharge by not discharging offal during hauling or shooting operations, subject to whether there are seabirds present at the time of the activities, and
3. Your vessel is actively involved in seabird mitigation and offal control method improvements through ongoing observation, information gathering and review processes

Rationale

Seabirds are attracted to offal and discards from the vessel or whole fish in the trawl net. Once attracted, they are at risk of fatal injury or drowning.

Offal management is the primary method to reduce the number of, and risk to, seabirds in the two danger areas around your vessel.

These two areas are:

1. **The warps**; in particular where they enter the water and birds collide with them.
 - a. Mandatory mitigation devices serve to scare seabirds away from the warp danger area
 - b. Ceasing, reducing or controlling offal discharge while warps are in the water will also greatly reduce interactions.
2. **The trawl net**; when it is on or near enough to the surface for birds to become caught (some birds can dive below the surface to enter a net).

Net captures occur during both shooting and hauling of the net. It is important that you eliminate offal discharges before and during both hauling and shooting and that you properly clean the net before shooting to reduce the risk of net captures. Minimising the amount of time the net is on the surface will also reduce this risk.

Management practices are summarised in *Appendix 2: the 10 Commandments for Saving Seabirds*. Your crew should be familiar with these basic seabird mitigation principles.

Reporting

Vessel Action (Trigger Points)

If, in any 24 hour period you:

capture 3 or more large birds (eg albatrosses), or

capture 5 or more small birds (eg petrels, prions, shearwaters), or

if, in any 7 day period you:

-Capture 10 or more of any species, you must:

- a. Record the seabird interactions, and any other relevant information in the **Bridge Log** and
- b. Report to your **onshore Vessel Manager** promptly and
- c. **Reassess** your seabird mitigation, offal control and net cleaning effectiveness and
- d. *Wherever appropriate*, **take additional steps** to mitigate risk and
- e. **Complete** the ***UFI Seabird Interaction Record*** form:
 - i. Identify seabird type captured
 - ii. Use the species code or the type code supplied as listed here:
 - XAL - Albatrosses (Unidentified)
 - XXP - Petrels, Prions and Shearwaters (Unidentified)
 - XHG - Shags (Unidentified)
 - XLA - Gulls and Terns (Unidentified)
 - XPG - Penguins (Unidentified)
 - iii. Record any leg band numbers on the form
- f. **Return the *UFI Seabird Interaction Record* form to your vessel manager** at the end of the trip.

Onshore Vessel Manager Action

Your **onshore Vessel Manager** will notify the GM International Fishing

Vessel Management Plan Procedure Form

Company Contact Details	Company Name	Contact Person	Address	
	United Fame Investments Ltd	Daryl Smith	5 th Floor BCI House, Avarua Cook Islands	
	Phone	Mobile	Email	
	+64 3 5483069	+64 21 020 46755	djs@sealord.co.nz	
Vessel Details	Name of Vessel	Vessel Type (tick type in box)	Call Sign	
	Will Watch	H&G Trawler	X	E5WW
		Fillet Trawler	X	
Designated Person or Vessel Manager	Name	Area of Responsibility		
	Daryl Smith	Supply of mandatory and other mitigation equipment		
	Position	Briefing of crew		
	International Fleet and Operations Manager	Supply of seabird identification and type codes		
		Management of plan compliance		
		Auditing and review of the plan onboard systems and corrective actions		
		Reporting as required		
Vessel Master (or duly delegated staff/ crew onboard) <i>(see Vessel Master's Responsibilities and Vessel Responsibilities)</i>	Name	Area Responsible for		
	Christopher Howarth Phillip Gaugler	Ensuring on-board compliance with VSMP		
	Position	Crew briefing and awareness		
	Captains	Ensuring correct seabird identification and reporting procedures are followed		
		Constantly monitor and adjust mitigation and offal control requirements to suit fishing operations, conditions and risk to seabirds		
		Record events as per VSMP procedures		

This vessel is using the following mandatory bird scaring devices:

Seabird Scaring Devices <i>Appendix 1: Mandatory Seabird Scaring Device Specifications</i>	Item	Location	Details
	A	Bird Baffle b. 4 Boom (main device)	Stern quarters, port and starboard
	B	Tori Lines (2 nd device)	Stern, outside port and starboard warps
			Installed and managed in compliance with NZ industry standards
			Installed and managed in compliance with NZ industry standards

This vessel is using the following offal management procedures and equipment:

Procedures and Equipment

All vessels require this section

(See *Offal Management* for details)

Item	Location	Details
Chutes and Conveyors	Factory deck	Modify and maintain chutes and conveyors in good condition to reduce accidental spillage to the floor.
Fish: Discards	Deck and factory deck	Any damaged fish quantified then discarded from deck will be discarded in a manner that minimises the risk of the discards tracking back under the warp wires and not when the net is on the surface. Best discharged when the net is on deck.
Sump pumps	Factory deck	Pumps used to clear water from the factory deck, may discharge pieces of offal accidentally lost to the floor

This vessel is using the following offal contingency procedures and equipment:

Contingency Procedures and Equipment

(See *Offal Contingency Management and Fishing Operations* for details)

Item	Location	Details
Increased risk of captures	Factory Deck	Deploy additional mitigation if there is increased risk of seabird captures Have the capacity to stop offal and fish waste discharging during hauling & shooting periods when the net is on or near to the surface. (defined on page 11)

This vessel is using the following offal contingency procedures and equipment:

Contingency Procedures and Equipment

All vessels require this section

Item	Location	Details
Night Time Repairs		Repairs to factory offal equipment when possible should be carried out at night when discharges present less risk to seabirds
Offal control system failure (i.e. meal plant or mincing system failed)	Bridge	Log in ships log book Notify: ASAP shore/vessel manager

Vessel Management Plan Responsibilities

Your Vessel Responsibilities

Your vessel Master will:

- Deploy one or more of the mandatory mitigation devices.
- Deploy any other device(s) to best suit weather, fishing and processing conditions to minimise risk during periods of high seabird interactions or observed captures.
- Complete regular maintenance checks on mitigation gear to ensure compliance with specifications (see *Appendix 1*) and carry appropriate spares.
- Inspect warps regularly and ensure they are spliced using methods that do not leave sprags.
- Ensure all appropriate (including factory) personnel are adequately trained.
- Ensure key crew are briefed on the VSMP procedures and fully understand the actions required.
- Be aware that when the vessel is turning as this may expose a warp wire outboard of the hull in line with offal discharge and may (when birds are present) increase likelihood of warp strike.
- Be aware of seabird activity around the vessel and assess risks.
- Be able to identify increased numbers of (or risk of) seabird interactions with warps and nets and adjust procedures to minimise the risk at the time.
- Have a copy of *The 10 Commandments for Saving Seabirds* (see *Appendix 2*) posted on the Bridge
- Ensure correct reporting

Your vessel must:

Not discharge offal and fish waste during hauling and shooting periods.

This period is defined by when the codend is on the surface when hauling, and from when the cod-end is hauled off the deck and is below the surface during shooting.

Shoot and haul the net as quickly as practicable and always seek to minimise the time the net remains on the surface.

Always clear net of stickers before shooting.

Avoid mending the net while it lies on the surface, when there is a high risk of net captures.

Note that net binding can be used to prevent captures observed to be occurring during shooting. Net binding consists of tying short lengths of rope at intervals down the length of the trawl's bigger netting and rope meshes. Held with slip knots, these pull apart when the force of the doors spread the

net during shooting (contact DWG for their net binding instructions/procedures).

Your vessel must:

Follow at least two of the following offal management strategies:

All Vessels	1. Your vessel will manage and reduce all possible accidental factory floor offal and fish waste spillage to reduce offal being washed overboard through the scuppers or sumps AND follow the Hold strategy:
Hold	2. Have ability to stop offal discharge at times of increased risk. Any discharges should occur when not fishing (i.e., when the trawl net is on the deck), OR

Offal Contingency Management

In addition to the vessel's main offal management system detailed in *Vessel Management Plan Procedure Form - Procedures and Equipment*, the vessel must document contingency equipment or procedures to manage risk in the event of equipment failure (*Vessel Management Plan Procedure Form - Contingency Procedures and Equipment*):

1. If the offal management system fails you should have contingency equipment and/or procedures to stop offal discharges from occurring when the net is on or near the surface when hauling and shooting.
2. Record notable events in the Bridge Log.
3. Carry sufficient replacement parts for all equipment described in this VSMP.

Use and Care of Seabird Scaring Devices

Use of Seabird Scaring Devices

To ensure best risk management for seabird mitigation and equipment failure, your vessel should have onboard two different types of mitigation device to:

1. Suit different weather and sea conditions (in suitable weather conditions, the tori line is the most effective device)
2. Be able to deploy a contingency device if the vessels main offal control system fails and there is an increased risk of seabird captures
3. Have a full back up of a mandatory device for risk management of total loss of device(s).

Care of Seabird Scaring Devices

Care of seabird mitigation devices should be on the following basis:

1. Have crew check your mitigation device(s) during the voyage to ensure they meet the regulations, are operating effectively and meet mandatory specifications (see *Appendix 1*).
2. Undertake careful repairs to failed or damaged equipment, checking repairs against specification.
3. Have ample spare parts in stock to replace broken or failed equipment.
4. Return to port if unable to deploy any mandatory mitigation devices.
5. Record events in **Bridge Log**.

Handling Live Seabirds

When, despite precautions, seabirds are incidentally captured and are still alive, you must immediately make every reasonable effort to ensure that birds are released alive:

1. Crew must attempt to remove seabirds from netting or meshes without either jeopardising the life of the bird or putting themselves at risk
2. Crew should always wear gloves, long sleeves and protective eyewear when handling seabirds, as they have sharp beaks and are capable of inflicting serious bites.
3. For birds entangled in the meshes it is best for one crew member to hold the bird with its wings firmly against its body, with head, neck and feet supported, while another crew member attends to the net meshes. If the bird has its head through the meshes, it's often easiest to peel the meshes back from the tail and over the head. This method can sometimes mean it is not necessary to cut the net meshes.

Document Control

VSMP Internal Audit

- You should seek advice as required from the company at any time, however you must also regularly review your own VSMP and its procedures.
- It is YOUR responsibility to ensure regular reviewing of your vessel's mitigation and offal control methods and adherence to this VSMP.

- You must complete an **annual internal audit** of your VSMP document and procedures.
- UFI require a copy of your audit documentation.
- Use the flowchart and form on the following pages to complete the *Internal Vessel Management Plan Audit Form*
- Observers will be asked to independently check your adherence to your VSMP.

Internal Vessel Management Plan (VSMP) Review



Internal Vessel Management Plan Audit Form

Name of Vessel	Auditor's Name	Review Date	Conforms?
			Yes / No

Item	Location / Subject	OK
Non-Fish Protected Species Catch Return	Bridge Completed and being furnished to UFI as required	<input type="checkbox"/>
Trigger points	Bridge Was a trigger point reached? If so did the captain report this to shore management?	<input type="checkbox"/>
Bridge Log	Bridge Check that Bridge Log has been used for recording any mitigation equipment failure, notable interactions.	<input type="checkbox"/>
Observer Audit	MFish Vessel Management Plan Review audit form(s) received	<input type="checkbox"/>
Mitigation Methods	Procedure Check recorded equipment matches equipment being used and on board, check all mitigation gear is being maintained to the correct specification	<input type="checkbox"/>
	Personnel Check contingency plans are properly recorded	<input type="checkbox"/>
Offal Control Methods	Procedure Check recorded equipment matches equipment being used on board, check VSMP procedures are followed	<input type="checkbox"/>
	Personnel Check contingency plans are properly recorded	<input type="checkbox"/>
Corrective Actions taken	Previous Review Form Check that previous corrective actions have been carried out	<input type="checkbox"/>
Onboard Management	Bridge Are officers and crew monitoring changing conditions and making changes to offal mitigation devices and methods when to risk to seabirds increases?	<input type="checkbox"/>
Training	Personnel Check crew in key positions are well aware of the VSMP and its procedures and are maintaining equipment and onboard management systems to meet the VSMP requirements	<input type="checkbox"/>
Safety Hazard Management	Bridge Have hazards associated with the equipment or procedures to adhere to the VSMP, been assessed/ identified and crew advised	<input type="checkbox"/>
Changes advised or details of non-conformance (comments) Contact DWG for advice:		

Auditor's Signature	Date Results Advised

Compliance

Vessel Operators and Captains

Must adhere to their VSMP procedures and agreed best practice mitigation methods. It is expected that you and your crew will understand and comply with all regulatory requirements.

Hazard Management

Your vessel must operate in a manner to ensure the safety at sea of vessel and personnel.

While the over-riding principle is to ensure the safety of your crew and vessel, all reasonable care must also be taken to mitigate seabird captures.

Significant hazards (if any) arising from these procedures should be identified for all equipment and you must document these for your vessel. You must provide any crew training to ensure your crew is aware of the practices and procedures needed to safely use or deploy any equipment. i.e. in the use of Tori Lines.

Appendix 1: Mandatory Seabird Scaring Device Specifications

Introduction

This document acts as a reminder to vessel operators of the current specifications for seabird scaring devices.

Below is simply the specification detail, for quick reference guide as to how to maintain and deploy these devices.

Vessel crew should check their seabird scaring devices against this specification at regular intervals during the trip.

Note that research has shown tori lines to be most effective at reducing seabird warp strikes. Warp deflectors and bird bafflers are less effective.

Seabird Scaring Device Definition

Seabird Scaring device means:

Paired Streamer (Tori) lines; Bird Baffler; Warp Deflector

The device must be deployed as soon as possible after shooting the net and shall remain deployed for as long as practicable prior to the net being hauled.

Bird Baffler

Two or more booms attached to the stern quarter of the vessel, with at least one boom attached to the starboard and port, stern quarters which are able to be lifted and lowered over the sides or stern of the vessel

- Each boom shall extend outwards not less than 4 m from the side or stern of the vessel
- Dropper lines shall be attached to the booms no more than 2 m apart
- Plastic cones, rods or other brightly coloured durable material shall be attached to the ends of the dropper lines
- The bottom of these cones, rods, lines and materials etc must be not more than 0.5m above the water line (in the absence of wind or swell)
- Lines and webbing may be attached between the dropper lines to prevent tangling

Paired Streamers (Tori Lines)

Two lines of a minimum of 8 mm in diameter shall be of a length so when deployed have an aerial extent of at least 10 metres behind the point at which the trawl warps enter the water (in the absence of wind or swell).

Streamer lines shall be attach to the port and starboard sides of the vessel from a point as close to 2 metres above the trawl blocks as practicable and as close to the stern as practicable. Streamer lines shall be attached either;

- **Between 1 to 3 m from the outside edge of the trawl blocks** on both sides; one a side arm if necessary: or
- **To a “boom and bridle” system** that allows the streamer lines to be adjusted on a horizontal plane in order to vary the distance between the streamer line attachment point and the outside of the trawl blocks and is positioned to ensure maximum protection of the trawl warps at all times.

An object shall be attached at the seaward end of each of the streamer lines. The object must have sufficient drag on the streamer line that it is taut behind the vessel at all times.

Branched streamers, each comprising of two strands of fluorescent red, yellow, orange or pink plastic tubing of a minimum of 3 mm in diameter, shall be attached no more than 5 meters apart commencing no more than 5 metres from the point of attachment of the streamer line to the vessel.

Each of the branched streamers must reach the sea surface in the absence of wind and swell. Branched streamer length will therefore vary depending vary depending on the height, **every branched streamer must be at least 1 metre in length.**

Each branched streamer shall be attached to the streamer line in a manner to prevent fouling of individual branched streamers on the main streamer line and to ensure vertical displacement of individual branched streamers to the water line in the absence of wind or swell.

Warp Deflector

Warp deflector is a weighty device fixed to each warp with clips or hooks, which allows for the device to slide up or down the warp freely and to stay aligned under each warp.

When set the backbone of the device must extend under the warps from a point not less than 4 metres behind the stern and extend as close as practicable to the point where the warps enter the water in the absence of wind or swell.

The backbone of the device shall be made of rope or metal and shall be fitted with **colourful durable material of no less than 300 mm in length**, woven or tied to the backbone at **spacing of no less than 250 mm apart** in a manner designed to create a visible deterrent.

Appendix 2: 10 Commandments for Saving Seabirds

DeepWater Group

Sustainable Oceans • Sustainable Fisheries

10 Commandments for Saving Seabirds

1. Ensure your vessel has a current Vessel Management Plan (VMP) and that you are complying with it
2. Offal control is the key to minimising seabird captures, your VMP must stipulate how you are managing offal and fish discards
3. Ensure crew are aware of changing fishing and operating conditions and continual monitoring of offal discharges is maintained
4. Holding all offal onboard during fishing operations then discharging when the gear is on the deck is best risk mitigation, every endeavour should be taken to create the capacity to achieve this. As a minimum ensure all offal is held during hauling and shooting.
5. Manage carefully the accidental spillage of fish waste to the factory floor and hence continuously overboard. Once offal is on the floor it is too late, find ways to prevent this spillage.
6. Managing the use of the appropriate mandatory mitigation devices for the prevailing conditions is crucial; don't just "set and forget"
7. The tori line is proven to be the most effective mitigation device and every vessel should have and deploy this device whenever the conditions allow, use the legal alternatives when conditions demand
8. To reduce the risk of net captures, haul and shoot as quickly as practical and minimise time gear is on the surface for repairs and breakdowns
9. Remove all fish stickers from the net
10. Report all captures as legally required to MFish on the Non-fish / Protected Species Catch Return at the completion of the voyage and send a copy to the DWG. Be aware of reporting trigger points to the DWG in real time (ASAP) during the voyage.

N:_Projects\2007-08\10 Commandments for Saving Seabirds.doc

Appendix 3: Observer VSMP Review

Vessel Management Plan Review (Version 1- July 2007)

VMP

1. Write the trip number , observer code/s and
and vessel name

2. Fill out this section while referring to the Vessel Management Plan (VMP). Y/N/U

Item 1.	Did a Vessel Management Plan exist that is specific to this vessel?.....	<input type="checkbox"/>
Item 2.	Were key crew members aware of the VMP and its contents?.....	<input type="checkbox"/>
Item 3.	Were key crew aware of the significance of seabird 'trigger' points?.....	<input type="checkbox"/>

Did the vessel act in accordance with their VMP with regards to:

Item 4.	The deployment of seabird mitigation devices?.....	<input type="checkbox"/>
Item 5.	The condition of the warps?.....	<input type="checkbox"/>
Item 6.	Offal discharge during shooting or hauling?.....	<input type="checkbox"/>
Item 7.	Minimising the time the net spent on surface?.....	<input type="checkbox"/>
Item 8.	Removing stickers from the net prior to shooting?.....	<input type="checkbox"/>
Item 9.	Offal discharge whilst actively fishing?.....	<input type="checkbox"/>
Item 10.	Minimising offal discharge through sumps?.....	<input type="checkbox"/>
Item 11.	How they managed seabird related equipment failures?.....	<input type="checkbox"/>
Item 12.	Notable events being recorded in bridge log?.....	<input type="checkbox"/>

3. Make a comment for each Item in Section 2 where you entered 'N' or 'U'.

Item No

Item No

