



SEA SAFETY

INFORMATION BULLETIN

Number 2 - October 2005

Promoting Safe Operational Plans

Welcome to the second edition of the SPC Sea Safety Special Interest Group. We received some very positive endorsement from readers of the first bulletin, especially in relation to the information on EPIRBs.

This bulletin features the promotion of Safe Operational Plans (SOPs) for small craft as a means of ensuring vessel operators are always prepared to deal with problems that might occur at sea. The technology feature for this bulletin focuses on simple but potentially effective innovations that are inexpensive, easy to store and could well save lives.

In preparing this bulletin, I had hoped for wider inputs from recipients of the bulletin with some more stories from around the region. Can I issue a challenge to readers with safety interest stories to tell, to put them on paper and get them to me for publication. I am particularly interested in receiving comments in regard to the article on compliance with UNCLOS and incidents of rescues not being carried out, as well as discussion on the possibility of a missing boats register.

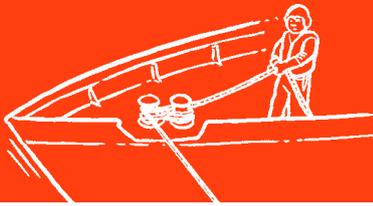
I hope you find this second bulleting interesting and useful and I look forward to your feedback.

Hugh Walton

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SPC Activities

■ Update on the FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels – Stakeholder consultation in Samoa, Kiribati and Fiji

The expert consultation of February 2004 recommended that improved small boat safety would best be achieved by carrying out coordinated national strategies with a special emphasis on the generation of political will, support for (and where necessary establishment of) a consultative national stakeholder framework for small vessel sea safety and the identification of committed people. Samoa, Kiribati and Fiji are taking this recommendation to heart and in these countries sea-safety stakeholder consultation is becoming a reality.

Early this year, staff of the SPC Fisheries Training Section travelled to Samoa and Kiribati in April, then to Fiji in May, to contribute to discussions at informal meetings on small vessel safety. While sea-safety stakeholder consultation is not new in Samoa – the Licensing, Surveillance and Safety at Sea Committee was established in 2004 – it was a first for Kiribati and Fiji. The meetings were attended by members of the maritime and fisheries administrations, the police, training institutions, ports authorities, the Navy (Fiji), the private sector (boat builder – Fiji), the Attorney General's Office (Kiribati), urban councils (Kiribati) and fishermen's associations. Their purpose was to prioritise small boat safety issues and to develop coordinated national strategies for addressing the problems.

The FAO report 'Aspects of sea safety in the fisheries of Pacific islands' (Robert Gillett, 2003) provided useful background information to participants with national issues highlighted in the report found to be still relevant. Furthermore, the national strategies that were developed include aspects of small vessel sea safety that provided the themes of the 2004 expert consultation: awareness programmes, legislation, boat construction standards and accident data recording. Interestingly,

meeting participants in Kiribati and Fiji recognised the value of the consultation and suggested its formalisation through the establishment of a national sea safety advisory committee similar to the one operating in Samoa.

Following the meetings, Fisheries Training Section staff have assisted the Samoa, Kiribati, and Fiji Fisheries Departments with the development of a proposal for the implementation of national strategies for small vessel safety. The three countries hope to receive some financial assistance through an FAO Technical Cooperation Project (TCP), with the possible involvement of SPC in project coordination and management.

Outline of the national strategies for improved small boat safety:

SAMOA

Formal training

- Sea-safety certificate courses for fishing deckhands
- Outboard maintenance/troubleshooting workshops for boat operators
- Master/engineering Class 6 certificate courses

Awareness-raising

- Radio programmes, TV spots
- Translated SPC materials
- Video shows and public talks

Enforcement of regulations

- Compliance workshops for boat owners and operators
- Monitoring of fishing fleet
- Publication of regulations

Communication

- Maintenance of VHF Fishermen Safety Communication Network

SPC Activities

Safety equipment

- Revolving fund for safety equipment and engine spare parts

Search-and-rescue

- Improved coordination of SAR operations

KIRIBATI

Formal training

- Sea-safety workshops for fishing communities
- Outboard maintenance/troubleshooting workshops for fishing communities
- Training-of-trainers course in sea safety and survival for Fisheries Assistants

Awareness-raising

- Radio programmes, TV spots
- Translated SPC materials
- Awareness materials for secondary school children

Legislation

- Sea-safety regulations for small boats

Boat-building

- Construction standards for local boat-builders

Safety equipment

- Revolving fund for safety equipment

Data recording and analysis

- Centralised recording system for sea accident data

Stakeholder consultation

- Establishment of national sea-safety advisory committee

FIJI

Formal training

- Workshops on sea safety and outboard maintenance/troubleshooting for fishing communities

Awareness-raising

- Radio programmes, TV spots
- Translated SPC materials
- Small boat safety awareness workshops for women and youth

Legislation

- Sea-safety regulations for small boats

Boat-building

- Construction standards for local boat-builders

Data recording and analysis

- Centralised recording system for sea accident data

Stakeholder consultation

- Establishment of national sea-safety advisory committee

Sea Safety Training for the Savaii fishermen (Samoa)



■ THE FOOLISH FISHERMAN – a comic book to raise sea safety awareness

As part of the Asian Development Bank's (ADB) Coastal Fisheries Management and Development Project (CFMDP) in Papua New Guinea, a comic book aimed at raising awareness on small boat safety has been produced. The SPC Fisheries Training Section made a financial contribution to the development of the comic book, which will ensure that this important publication is disseminated to target groups in SPC's other member countries and territories.

Building on the 'Rambo' theme popularized in the SPC sea safety videos, the comic tells the story of a lucky rescue for a small boat fishermen whose engine breaks down on a fishing trip. The story was written by CFMDP's Adviser Peter Watt and follows the same scenario as the radio play produced by the project and reported in the Sea Safety bulletin # 1. The comic has been produced both in English and in Tok Pisin and is titled the foolish fisherman (*Longlong fisaman*). Two thousand English language copies and two thousand Pidgin copies have been printed and distributed to schools, community groups and

fishers organizations, in the Provinces of Papua New Guinea where the CFMDP is working. The comic is an excellent support resource to the SPC sea safety posters distributed in PNG in 2004.

SPC is further assisting by printing and distributing an additional 2000 copies, which will be distributed throughout the Pacific Islands region. Reaching community members in remote areas of the Pacific is often a challenge, but it is hoped that this important publication will be effective in communicating with its intended readers, which include small boat operators and school children. At the time of writing, work on a French version of the comic is underway.

If you wish to receive copies of the comic book, please contact the Fisheries Training Section or ask your country's fisheries administration. If you wish to learn more about the fisheries information materials the ADB project is producing, contact the CFMDP office in Kavieng, New Ireland Province, Papua New Guinea at 675-984-2266.





Safety Feature

■ SAFE OPERATIONAL PLANS — A TOOL FOR MINIMISING RISKS

By Alastair Robertson and Michel Blanc

What is a Safety Management System?

A safety management system (SMS) is designed to ensure vessels are maintained and operated safely throughout the year. It is a new way of looking at vessel safety and involves you, the vessel owner, creating your own safety environment.

In an SMS, you develop your own safety procedures, write these down in a safety management manual, train your crew to follow these procedures and keep a record of the procedures in a safety management logbook.

Smaller boats can operate a scaled down version of the SMS. In New Zealand this is called a safe operational plan (SOP).

Who is required to have an SMS in the Pacific?

New maritime laws, under the SOLAS Convention, require all passenger ships, oil tankers and cargo ships over 500 GT to implement an SMS as defined by the International Safety Management (ISM) Code. At present, all other vessels are not required to have an SMS.

Why should I have an SMS if I am not required to have one by law?

Some countries, such as New Zealand, have passed laws requiring all commercial vessels to be covered by some sort of SMS. It is possible that in future, your country may also introduce SMS legislation for smaller ships. Regardless of whether this happens or not, there are great advantages to vessels operating with an SMS or SOP.



What are the advantages of operating with an SMS or SOP?

It has been found that human error or human-related factors (e.g. lack of proper engine maintenance) cause 80% of all accidents. The Annual Survey system concentrates on equipment and you think about safety issues once a year. The SMS concentrates on people — you are encouraged to think about safety issues every day. Having the right safety equipment is not enough. It is the people, including shore management, which make a safe system.

Introducing quality systems, such as an SMS and SOP, has been shown to reduce operating costs by 10 to 15%. This is achieved by following proper procedures from the beginning, not duplicating effort, and reducing down time caused by mistakes.

Keeping the records associated with an SMS or SOP helps you see where money is being spent, encourages preventative maintenance, helps show how well your vessel is doing on a commercial basis, and makes it easier and potentially cheaper to insure your vessel.

What are the steps in developing an SMS or SOP for my own boat?

You will have to develop your own SMS following the maritime safety legislation of your country. You will need to examine the everyday operation of your vessel for dangers, write down in a manual how you will deal with these, and train the crew to follow procedures. The manual should also contain contingency and emergency plans.

SPC has already developed model safety management manuals and logbooks for large fishing vessels under 500 GT and for smaller commercial vessels, and these can be used to develop your own manual and logbook.

Safety Feature

How does developing an SMS or SOP affect my annual survey and the existing safety legislation in my country?

This depends on what legislation is in place in your country. If your country does not have legislation requiring you to implement an SMS for your type of vessel, you can use the SPC model to develop your own. You will continue to follow the existing practices of inspection and survey or whatever your country currently has in place. An SSM (or SOP) will make annual surveys much easier to get through and they will become a formality only. The auditing of your SMS will be done within your own company.

If your country has introduced SMS legislation for your size and class of vessel you may also use the SPC model systems to develop an SMS or SOP. The maritime authority in your country will no longer require an annual survey and in place of your Certificate of Survey they will issue a Safety Management Certificate. The maritime authority, or someone registered by them, will conduct inspections and audits to ensure the system is operating as written in your safety management manual, and ensure you are correctly recording those in your safety management logbook.

How about smaller commercial boats?

SMS applying to small commercial vessels are called safe operation plans (SOP).

With an SOP, individual operators make their own set of checks and records that they consider to be directly relevant to their own operation; for example, a boat maintenance plan, pre- and post-voyage checks, procedures for handling and reporting accidents and conditions for carrying passengers.

In New Zealand this plan, and compliance with it, is checked once a year by what is called 'a competent person' registered by the Maritime Safety Authority (MSA). The competent person can help with the

development of SOPs for individuals and the MSA can provide model plans.

Within the Pacific, SOPs represent a practical way of improving the safety of smaller commercial vessels such as small fishing boats and small tourist craft.

Are there costs involved?

There are initial costs in setting up the paper work and developing the system. There might be additional costs with getting better safety gear and training crew. In the longer term, however, it will save money.

How to find out more?

SPC has developed a model SMS for medium-size longliners and an SOP for small outboard-powered fishing vessels (extracts in this issue). Both models can be easily modified to suit other types of vessels (e.g. SMS for pole-and-liners) or commercial operations (SOP for fishing charters, taxi boats, etc.).

To obtain the SMS and/or SOP models, contact:

Fisheries Training Section, Secretariat of the Pacific Community
Fax: +687 263818
Email: michelbl@spc.int



Safety Feature

What's in a safe operational plan?

Here is a summary of what your SOP should include:

1. Owner/operator information

- Name of owner/company:
- Address:
- Areas of operation:
- Details of boat (or boats) operated
- Name and number:
- Length:
- Type:
- Hull material:
- Engine type, make, HP and number:
- Skipper and crew names and emergency contact information (family and relevant SAR contact numbers)
- Vessel communication systems information (radio details, mobile phone, phones, etc.)
- Vessel standard trip information (departure and landing points, usual fishing grounds)

2. Emergency procedures

Emergency procedures for the following categories should be described:

- Non-serious: Breakdown etc., not requiring assistance
- Serious: Machinery breakdown etc., requiring assistance
- Emergency: Accident requiring immediate help (MAYDAY)

No.	Basic tool kit:	
1.	Plug spanner	
2.	Adjustable spanner	
3.	Screwdriver	
4.	Pliers	
5.	Hammer	
6.	Hacksaw	
7.	CRC	
8.		
9.		
10.		

No.	First aid kit contents:	Expiry date
1.	2 bandages	
2.	Dressings	
3.	Plasters	
4.	Antiseptic cream	
5.	Finger stall	
6.	Aspirin	
7.		
8.		
9.		
10.		

3. Safety checks

A series of safety checks are outlined and should include:

- Pre-voyage checks — fuel, water, oil, tools, plugs, fuel filter, impellor, hull inspection, steering, battery, safety gear, radio, navigation lights, fire extinguisher, etc.
- Weekly inspection and service
- Monthly inspection and service (based on 25 engine hours per week, i.e. after each 100 engine hours)
- Three-monthly inspection and service (based on 25 engine hours per week, i.e. after each 300 engine hours)
- Six-monthly inspection and service (based on 25 engine hours per week, i.e. after each 600 engine hours)

4. Record of audit and inspection

The SOP will include a compliance audit schedule which states the name of the auditor, a summary of audit compliance and a schedule of any action needed.

5. Record of safety equipment

The boat has the following equipment: (minimum standard must conform with marine regulations)

No.	Item	Identification number/make	Expiry date
1.	Mooring lines		
2.	2 fire extinguishers (type)		
3.	First aid kit (see list of contents below)		
4.	Bailer		
5.	Tool kit (see minimum requirements below)		
6.	Waterproof torch		
7.	Tow rope or anchor line		
8.	Bilge pump		
9.	Steering cables and pulleys securely locked		
10.	Life jackets (one per crew)		
11.	Radio		
12.	2 parachute distress rockets		
13.	4 hand-held flares		
14.	Grapnel		
15.	2 paddles		
16.			

6 Skipper and crew training records

Summary of training records for vessel skipper and crew including compulsory training to minimum levels

Note: The purpose of having a record of training is to encourage operators to train staff to the best standard possible in the circumstances. The training need not be done by only recognised training providers, but can be in-company, by other skippers, etc.

No.	Training	Hours	Date	Signature of trainer
1.	SOP familiarisation			
2.	Refuelling procedures			
3.	Safety course			
4.	First aid course			
5.	Outboard motor maintenance course			
6.	Fish handling and quality course			

7. Accident reporting

This section describes the legal procedures existing in the country of operation which must be followed if there is an accident on the boat. It should also state the steps that the company itself will follow if there is an accident, e.g.:

- When refuelling, every care must be taken to avoid spillage. Persons involved in refuelling must be aware of the dangers of fire or explosion from spillage, naked flames and smoking.

The company will conduct an internal investigation with the help of the authorised person or suitably experienced external person. This enquiry may list the actions the company will take to prevent a recurrence.

9. Review and monitoring of the SOP

The SOP will be reviewed annually and after any accident, or at the request of the authorised person. Amendments to the SOP are to be made by (position in Company) and approved by the authorised person. All personnel involved are to be made aware of the amendments.

8. Environmental, and health and safety legislation

This section will record any environmental and safety legislation that is in force in the country of operation and that may affect the operation of the vessel. Particular attention should be given to refuelling procedures. It may therefore be necessary to draw up a code of practice for refuelling, such as:

A record of reviews and amendments must be held by the owner and made available

- Never smoke when refuelling.
- Have the vessel securely tied when refuelling an internal tank.
- Avoid spillage. If a spill occurs, mop up with a rag and dispose of the rag in a safe place.
- Keep the nozzle grounded against the side of the tank when refuelling to avoid a spark being caused by static electricity.





■ THE GRAB BAG — SIMPLE STEPS THAT SAVE LIVES

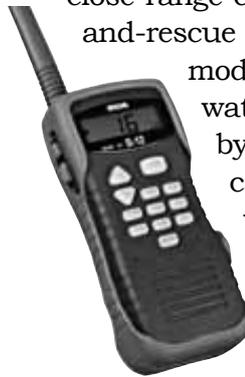
By Steve Beverly, SPC Fisheries Development Officer

SPC's Fisheries Development Officers put together their own sea-safety grab bags in April 2000 (see SPC Fisheries Newsletter #93) mostly for their own safety concerns, especially when they were working in remote localities where search and rescue operations were either non-existent or very limited, and they sometimes had to work on boats that weren't well equipped. Since that time, the sea-safety grab bag has played a standard role in all in-country assignments relating to fishing, including longline and FAD fishing workshops. Part of the training associated with the Fisheries Development Officers' work has been to demonstrate the sea-safety grab bag and explain its value.

The original sea-safety grab bags contained a minimum of small, portable, but essential safety gear — all in a waterproof canvas bag. The idea behind it was that in an emergency it may be difficult to round up everything that you would like to take from a sinking or burning boat in just a few minutes or even seconds. In an emergency situation there often isn't time for thinking or preparing. A grab bag eliminates the need for last minute searching for things. Everything is in one place and easy to grab. Life rafts come equipped with some essential items but not always with an EPIRB, and the other gear supplied by the manufacturers is often not adequate for a real survival situation. There are commercially available sea-safety grab bags but the Fisheries Development Officers preferred to put together their own. The original grab bag that they came up with contained a 406 EPIRB (emergency position-indicating radio beacon), a hand-held VHF radio, an inflatable life vest, a waterproof torch, and an all-purpose tool. By 2005 the Fisheries Development Officers had added a few more items to the kit.

The 2005 version of the sea safety grab bag contains the following:

- **406 EPIRB** — the 406 MHz model is preferred over the 121.5 MHz models which will become obsolete by 2009; when activated the 406 model identifies the vessel in distress and gives its position to the nearest search-and-rescue operation centre; small, inexpensive models are now available (see Sea Safety Information bulletin #1);
- **Hand-held VHF radio** — this is for close-range communication with search-and-rescue boats or airplanes. The best model to choose is one that is water resistant and is powered by replaceable batteries. You can take spare AA batteries with you, but you cannot charge a rechargeable battery on a liferaft!;
- **Hand-held GPS** — this is for giving your exact position if you are able to reach someone with the VHF radio;



Sea-safety grab bags contain a minimum of small, portable, but essential safety gear

- **Waterproof torch** — used at night-time to attract the attention of nearby boats and airplanes, a torch is also useful for finding things in the dark;



- **Waterproof strobe light** — these lights are visible for miles at night; they last longer than flares or parachute-rockets although they are not actually distress signals;



- **Rescue streamer** — this is a distress signaling device to be used during day-time. It lasts indefinitely and is visible for miles by airplanes (see article in this issue);



- **Mirror** — this is another distress-signaling device to be used during day-time. It can be used to attract the attention of nearby boats as well as airplanes;
- **Spare AA batteries** — for the VHF radio, waterproof torch, and hand-held GPS. It's a good idea to leave the batteries out of these devices until they are needed;
- **Inflatable life vest**
- **Swiss Army knife** or **all-purpose tool**
- **First-aid kit** — include a tube of sunscreen;
- **Fishing kit** ;
- **Gaff** — floating gaff with a cover for the tip so the life raft doesn't get perforated;
- **Food and water.**



Most of the gear in the list above is self-explanatory. The fishing kit and the food and water require some extra thought, however. Most people who have been in survival situations on life rafts or in boats that have broken down where they had to rely on pre-packaged safety gear have come to the same conclusion: the food and water and the fishing gear supplied by safety companies is a joke. Food and water usually run out in a matter of days, not weeks as the labels indicate, and the fishing gear isn't the right stuff for catching pelagic fish.

The best advice for food and water is probably to have a separate grab bag filled with food, and to have extra water containers on the deck, preferably plastic jugs that are about 80 per cent filled so they float. Aside from that, the regular sea safety grab bag may have some extra space after all of the other gear has been loaded into it. If so, then the extra space can be filled with food and water. For food, the best bet is small tins with ring-pull openers. Choose high protein foods such as sardines or meat. Ship's biscuits are also good. Another item that will be welcome is peanut butter. This is high in protein and fat and it keeps well. Choose a brand that comes in a plastic jar. Granola bars, fruit and nut bars, and chocolate bars are also good choices. These should be kept in sealable plastic bags to keep them from getting wet. Any extra space should be filled with spring or mineral water in plastic bottles. All of these items are available in almost any grocery store.

The fishing kit needs even more thought. One thing that is missing from most emergency fishing kits is a gaff. This is a very important piece of equipment. How do you land a large fish without one? A gaff can even be used to catch fish if you are patient and lucky. Floating gaffs with covered tips are available from stores that sell kayaks. The rest of the fishing gear should be chosen carefully and with this in mind: it is not sport but survival you are concerned with. In other words, you want heavy duty lines, leaders, and hooks, even if you are catching medium-sized fish.

Technology and safety

The kit that the Fisheries Development Officers put together has the following gear:

- Two handlines made from 10 m of 3.0 mm braided tuna leader, 5 m of 2.0 mm monofilament, a lead sinker, and a heavy-duty swivel snap (this is good for anything from mahi mahi to large sharks);
- An assortment of hooks with leaders to go with the handlines including two sizes of circle hooks with stainless steel or monofilament wire traces;
- A small hand spool with light monofilament line (this is for smaller fish and squid);
- An assortment of small hooks, swivels, lures, sinkers, and artificial baits to use with the hand spool (the fish you catch with these can be used for bait for the

- handlines for catching larger fish);
- An assortment of Sabiki rigs for catching baitfish. These are available in almost any fishing supply store. They are ready to fish with hooks, lures, and leaders, all in one;
- An assortment of squid lures;
- A small fishing knife.

All of the above isn't the last word on sea-safety grab bags. There are other things that could be added to increase the margin in your favour. One is a small solar still or a hand-pump water desalinator. It depends on just how much you want to include. In any event, it is hoped that the sea-safety grab bag will never be used, but you may sleep better knowing that it's there, ready to grab in case things go wrong.

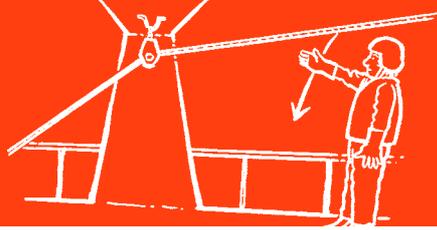
■ The Rescue Streamer – Now why didn't I think of that?

You have to be impressed with this new product from Rescue Technologies Corporation. So simple, so small, and yet potentially a very effective means of improving the possibilities of being found in a search and rescue operation. This has to be a smart thing to have on your boat.

- **VISIBLE**—1.3 miles away at 1500' altitude, leading airborne Search and Rescue personnel right to you.
- **DEPENDABLE**—Remains afloat and extended indefinitely.
- **RELIABLE**—Works every time on land, water and snow.
- **CONVENIENT**—The size of a cellular phone when stored and unrolls in seconds.
- **MAINTENANCE FREE** —No electronics, batteries, toxic chemicals or dyes.
- **APPROVED**—For use and procurement for all branches of the US Military.
- **AVAILABLE**—Quickly ordered direct from the manufacturer.



When deployed the Rescue Streamer is visible from 1.3 miles away at 1500' altitude, leading airborne Search and Rescue personnel right to you.



Training Activities

■ Women learn to use life jackets

By Lice Movono

(Edited from the Fiji Sun, Saturday, June 4 2005)

In 2002, 13 people were lost at sea and presumed dead after the fiberglass boat they were travelling in from Taveuni to Koro, capsized.

The first inhabitants of the Fiji Islands were said to have traveled here on large ocean-going canoes that carried people and resources they would need for months at a time. That belief in their age-old skills coupled with sheer ignorance of small boat safety has led many boatmen astray.

Every year there are many accidents at sea and maritime authorities say that a lot of the time those that are lost are on small unsafe boats.

Commonly known as “boto” these small craft are the travel norms in our coastal communities because they are affordable and easy to handle.

Following an accident or a report of fishermen missing at sea, most are quick to judge the safety and validity of these small vessels. There’s usually a lot of talk as people and parties scramble to lay the blame on someone for the lives lost, but a group of women have decided to be more proactive about small boat safety.

The Pacific Women in Maritime Association or PacWIMA was setup to discuss and debate issues and also more importantly promote solutions and opportunities. Although it is a non-governmental organisation, PacWIMA has its secretariat and treasury functions taken care of by the Secretariat of the Pacific Community.

Its head is 60-year old Viti Whippy who has worked in maritime for almost 30 years. Mrs Whippy grew up on a copra estate in Savusavu where her life was spent by the sea. “As a young girl I know how important it was to have a boat call into the islands and I remember sleeping on the jetty with other students as we waited for the boats to come so we could travel,”

said Mrs Whippy. This experience taught her that no matter the circumstances or the duration of a voyage, people would travel if there was a compelling reason to do so. Although she realizes that it is mostly men who will drive boats, she has targeted her efforts at women and children because of the belief that teaching the matriarchs about safety will mean the whole family will also learn.

With that conviction, PacWIMA took its pilot programme out to the islands and chose Koro, where many villagers continue to travel on their small fiberglass boto, without a single safety device onboard. “We wanted to make women and children out there in the communities aware of small boat safety and the need to don life jackets whenever they are out on the water,” said Mrs Whippy. “When you teach women about the importance and usefulness of life jackets, you can be sure that they will make their husbands and children wear one when they get on the boat.”

With the expertise of 27-year-old Rebecca Soko, a foreign going seamstress who is working towards becoming a captain, PacWIMA taught 45 women and 35 men how to use life jackets in an accident. All of the participants at the day-long training programme spent two hours in the water where Rebecca tried to make things as realistically close as possible to an accident at sea. “It was really good because they could feel firsthand what it was like to have the safety and assurance of a life jacket close by,” said Mrs Whippy.

After the success of the Koro project, PacWIMA will return to the island following a request by the chiefs to have more people trained. PacWIMA has no funds with which to conduct its training programme, but Mrs Whippy said the organization was lucky that two businesses that service the island, Consort Shipping and Dere Bay Resort, supported their first project.



■ ANOTHER KIRIBATI STORY — SURVIVORS NEED FOR HELP

As reported in the National Newspaper, April, 2005

Fisheries Officer, Dickson Kondaula, appealed to the people of Rabaul and Kokapo in East New Britain, PNG, for assistance in looking after four I-Kiribati fishermen found by foreign fishing vessels after drifting at sea for more than 2 months.

Mr Kondaula told The National yesterday that of the four survivors, 35-year-old Batteta Ubaia and Toukai Baikia looked healthy. He added that all four survivors had lived on rain and salt water and the fish they had caught at sea.

Mr Kondaula noted that the fishermen had all been checked by health and quarantine officers before being allowed on shore in Rabaul and advised that their outrigger canoes, which had been their home for 2 months, would be left behind in Rabaul.

The fishermen were all residing with Mr Kondaula while arrangements were made to

send them back to Kiribati. The Provincial Disaster Office in Kokopo has been notified about the survivors' situation and Solomon Island authorities have been asked to inform Kiribati officials that the four fishermen have been found and are safe in Rabaul and waiting repatriation.

The fishermen went out fishing in two separate groups in their home country of Kiribati more than 2 months ago when their motorised outrigger canoes developed engine problems.

The four were picked up separately by two different foreign fishing vessels. Baiki and Baia were picked up by the MV Cape Cod, owned by FMS Company, on April 4 at Lyera Reef on the north-west of New Ireland and were taken to Rabaul last week. Their two colleagues, Ubaia and Baikia, were rescued by a Chinese fishing vessel, the MV Sin Shi Z102, in the open waters between Papua New Guinea and Nauru.

■ Rescue at sea: a disturbing increase in the number of response operations

from "Les Nouvelles Calédoniennes" Newspaper, LNC 11.03.2005, (New Caledonia)

"This cannot go on!" raged Captain Eric Abadie, Naval Commander in New Caledonia. "If the number of response operations is increasing, then the risks are also increasing and the number of victims will increase. That is a statistical certainty." This prediction was made by High-Commissioner Daniel Constantin during the presentation on the 2004 figures for rescues at sea in New Caledonia. Poor figures. An 39% increase in the number of response operations in comparison to 2003; 140 hours of helicopter or plane flight time as compared to 63 hours the previous year; 166 accidental discharges of rescue beacons as compared to just 110 a year earlier; five people who died or disappeared as compared to just one the year before.

Recreational boaters' lack of awareness

In the game of comparisons, the results are just as bad. Some 313 incidents in New Caledonia - almost double the number in French Polynesia (179 in 2004). That's one operation for every 62 registered boats. In the Mediterranean, a maritime basin with fairly comparable sailing conditions, the rate for search or rescue missions is one for every 147 ships. For sea rescue professionals, there are two major causes for this far-from-brilliant situation: first: recreational boaters' lack of training and wisdom. Second: a lack of boat maintenance that can also be attributed to boat-owners' lack of preparation. "Not everyone who goes out to sea and pilots a boat knows enough about the vital safety rules,"

Accidents and Incidents

Daniel Constantin stated forcefully. “Too many accidents are tied to boaters’ lack of knowledge,” went on the “Comar”.

“The lagoon, a fickle friend”

The worst offenders, if you believe the authorities, are jet-bike users. “A significant percentage of them don’t respect the speed limits along the coast, go into zones reserved for swimmers and go beyond the two nautical mile limit where they are authorized to use their machines.” But, in general, all recreational boat users are to blame. Running out of fuel, engine problems linked to poor maintenance, trips to sea that go wrong because no one checked the weather forecast and the weather took a turn for the worse during the day, etc. “The lagoon gives people a false sense of security and, what’s more, they don’t necessarily know the rules of navigation since there are no mandatory permits in New Caledonia. For those who have been sailing the lagoon for 20 years, no problem. But for those who have just discovered it and think they are on a lake, problems can happen very fast,” explained a navy officer. That is why the authorities have clearly expressed their determination to get things back under control in 2005. Through information and increased education for seafarers but also through the reinforcement of control checks and sanctions for risky behaviour.

The 2004 figures are so worrisome that the authorities thought it would be good to review a few rules that will be obvious for most boaters.

- First, always check the weather forecast before going out to sea. A day that begins with bright sunshine can rapidly turn into a nightmare once you are out on the ocean. You can find yourself several miles off Noumea without any visibility on choppy seas. In such cases, you feel very far away and very much alone.
- Always fill up the fuel tanks.
- Be aware of your boat’s condition and maintenance status.
- Have the right kind of safety and survival

equipment for the number of passengers and the type of trip: at the very least, life jackets, distress rockets, bailing devices, ropes, a compass, water reserves.

- Take along some kind of communications device. A cell phone may do the trick if you don’t go too far out. But the best thing is still the VHF, which can contact all the surrounding boats and dry land on Channel 16. Nowadays, VHF users’ licenses are free.



A new patrol boat to step up controls checks

Fast, with a wide cruising radius, the maritime police’s new patrol boat will make it possible to optimize rescues at sea...but also to step up control visits in the lagoon. Boarding. “Good day, gentlemen, national police; we are going to make a control check on your boat.” “Yeah, we saw you coming over.” And it is true that the maritime police’s new patrol boat can be seen from far away. Impossible to miss its high silhouette when it’s patrolling the lagoon. And difficult to escape its top speed of 27 knots, which it can reach even in heavy seas. Christened “La Dumbéa”, it replaced the ageing “Pétulante” four months ago. With this new boat, whose performance is a head above the old one, the public authorities have made a leap forward in terms of rescues at sea and control checks.

Reassuring presence

And this came about at the just right time since the French Government's stated objective this year is to step up control checks and impose heavier sanctions for risky behaviour. Some 20 meters in length, with a horsepower of 2000, a surveillance turret, a rapid inflatable dingy that can be launched while the boat is moving thanks to an inclined ramp at the stern and an operating range that allows it to go all the way around the big island of New Caledonia without refuelling... the Dumbéa is clearly the pride and joy of its captain, Chief Warrant Officer Le Vey, and its crew. "With this type of boat, we can get to the Loyalty Islands in four hours," emphasized CWO Le Vey. "With an operating range of

several days, we can also conduct patrols in the Northern Province, thereby emphasizing the maritime police's presence throughout the entire periphery of New Caledonia." A police presence that is generally well appreciated as shown by the welcome given by the first recreational boaters controlled yesterday morning. Three people who were calmly fishing in their outboard boat. Gendarme Manfredi asked for permission to board the boat to check the boater's papers and safety gear, permission given without any problem. Everything went well on a jovial note. Once the checks had been made, the discussion then switched over to the gendarmes' boat and its level of performance. After all, it is quite reassuring to know that such a vessel is also available for rescue missions.

INTERNATIONAL OBLIGATIONS – A REMINDER

Based on information provided by Les Clarke

Imagine the situation where, after drifting at sea for 40 days in a small canoe, you sight a fishing vessel and think that finally rescue is at hand. Imagine your dismay when you see the vessel intentionally steaming away to avoid you. Imagine an even worse scenario when drifting...you chance on a longline set and manage to tie your boat to one of the floats...assured of rescue? Don't count on it! Witness the story of Koraubara from Kiribati who did just that after 50 days at sea only to be cast off by the longline vessel.

Has the time-honored tradition of sea rescue fallen prey to the hard core economics of fishing and the possibility of lost fishing days if open ocean rescues are performed. In some cases, it seems, this is the situation.

Even in the face of operational economics or uncertainty, it is important to remember the obligations of seafarers as stated in article 98 of the United Nations Law of the Sea Convention (UNCLOS) on the subject of duty to render assistance.

Article 98 states that:

1. Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers:
 - (a) to render assistance to any person found at sea in danger of being lost;
 - (b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, in so far as such action may reasonably be expected of him;
 - (c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.
2. Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements cooperate with neighboring States for this purpose.

Accidents and Incidents

To address this important international obligation, it would be useful for the SIG to gather information from around the region on other circumstances where the plight of drifting fishers has been ignored by passing vessels, particularly if the name of the vessel is available. So, if there any more stories like this out there, please send them in.

THE CASE FOR A MISSING BOATS REGISTER

In correspondence relating to the Kiribati incident of not being rescued, one of the matters considered was the point that there is currently no mechanism to convey information to fishing fleets at sea on the

details of missing small boats. This raises the question of whether there would be merit in setting up such a register.

Perhaps this could be a task assumed by FFA or SPC with a system set up to enable National Search and Rescue or Emergency offices to provide information on missing vessels to a central agency who would then forward the information to fishing vessels. Obviously this would also require a system to ensure that vessels that were found were then eliminated from the register.

It would be useful to receive reader feedback on this suggestion. Please forward your comments to the editor.

SAFE READING

By Steve Beverly and Michel Blanc, SPC

The more information you have, the better equipped you will be when an emergency situation occurs.

One item that should be on any seafarer's reading list is a good manual on sea survival. For many, the classics are *Sea Survival – A Manual*, by Dougal Robertson (1975 ISBN 0-275-52760-3) and *Survival at Sea*, by the Australian Maritime Safety Authority (1993 ISBN 0-644-24262-0).

These books are essential guides that cover:

- How to equip a survival craft;
- How to abandon ship;
- How to send distress signals;
- How to treat for drowning and hypothermia;
- First aid and keeping fit;
- Ways of preserving morale;
- Navigation and weather forecasting;
- Collecting rainwater and living off the sea;
- How to detect the approach of land;
- How to identify marine birds.

A more contemporary guide on the same subject is *The Sea Survival Manual* by Michael and Frances Howarth (2005 ISBN 1-57409-216-2).

Other good books on sea survival are *Survivor* by Michael Greenwald (1989 ISBN 0-931297-02-8) and the account of the incredible 3,600 mile journey between Tonga and Timor by Captain Bligh and 18 other crew members of HMS Bounty in 1789 (*Men against the sea* by Charles Nordhoff and James Norman Hall (1933 ISBN 0-316-73888-3).

More information on sea survival and safety equipment can be found on these links:

- <http://www.safetyatsea.co.nz/>
- <http://www.xtools.us/pages/products.html>
- <http://www.seerescue.com/>
- <http://www.sheridanhouse.com/catalog/newbooks/seasurvivalnew.html>
- <http://www.liferaftsmarinesafety.com>
- <http://www.painswessex.com.au>

■ Apology

Editors note: In publishing the article in Bulletin 1 on the risks and dangers in small scale fisheries, I neglected to cite authorship beyond noting that the article comprised sections from an International Labour Organization article on the risks and dangers of small scale fishing (SAP 3.6/WP.147). My apologies to author Menakhem Ben-Yami.

The full report by Mr Ben-Yami can be accessed at <http://www.ilo.org/public/english/dialogue/sector/papers/fishrisk/index.htm>, and can be downloaded whole or in sections. This is a detailed publication and well worth downloading. The table of contents is produced here for reader information:

Preface

List of abbreviations

1. Introduction

- 1.1. General
- 1.2. Small-scale fishermen
- 1.3. Small-scale and artisanal fisheries

Definition

2. A short review of typical risks and dangers

- 2.1. Bad weather
- 2.2. Loss of power
- 2.3. Fire on board
- 2.4. Inadequate boat construction standards
- 2.5. Unsuitable boats
- 2.6. Fisheries management
- 2.7. Economic hardship
- 2.8. Inadequate communication
- 2.9. Fishing operations
- 2.10. Lack of accessible shelters

3. Review of safety approaches to small-scale fisheries

- 3.1. International and regional efforts
- 3.2. Selected developing countries
 - 3.2.1. India
 - 3.2.2. West Indies
 - 3.2.3. Senegal
 - 3.2.4. Guinea
- 3.3. Selected developed countries
 - 3.3.1. New Zealand

- 3.3.2. Canada
- 3.3.3. United Kingdom
- 3.3.4. Japan
- 3.3.5. Republic of South Africa
- 3.3.6. United States
- 3.3.7. Israel
- 3.3.8. Uruguay

4. Accidents associated with the marine environment

- 4.1. Crossing surf
- 4.2. Bad weather
 - 4.2.1. Poor visibility
 - 4.2.2. Major storms

5. Accidents associated with navigation

- 5.1. Loss of power at sea
- 5.2. Loss of way
- 5.3. Grounding and running ashore
- 5.4. Collisions
- 5.5. Fire on board

6. Accidents associated with fishing operations

- 6.1. Injuries from fish and other animals, and poisoning
 - 6.1.1. In water
 - 6.1.2. On board fishing craft
 - 6.1.3. Poisoning by marine toxins
- 6.2. Injury by deck machinery and equipment
- 6.3. Falling overboard and hypothermia
- 6.4. Capsizing and other accidents associated with operating fishing gear
- 6.5. Risks from scuba diving and explosives

7. Problems associated with boat design and construction

- 7.1. General
- 7.2. Developing country small-scale fisheries
- 7.3. Developed country small-scale fisheries

8. Various risks and dangers

- 8.1. Fishermen's know-how and attitudes
 - 8.1.1. Modern technology in traditional fisheries
 - 8.1.2. Mistrust
 - 8.1.3. Insufficient technical training
 - 8.1.4. Prestige considerations
- 8.2. Fishery management measures and economic factors

-
- 8.2.1. Economic and financial pressures
 - 8.2.2. TAC-type management
 - 8.2.3. Quota systems
 - 8.3. Wars, pirates and other hostilities
 - 8.4. Working conditions

9. Evaluation

- 9.1. Regulations, codes and enforcement among small-scale fisheries
- 9.2. SAR services and small-scale fisheries
- 9.3. Prevention and warning systems
- 9.4. Evaluation of state of safety in small-scale fisheries

10. Recommendations

- 10.1. General
- 10.2. Boat design and construction
- 10.3. Survival equipment, fire prevention
- 10.4. Weather warnings, communication, SAR and survival in water
 - 10.4.1. Education and training
 - 10.4.2. Civilian radio stations
 - 10.4.3. Armed forces to warn of approaching storms
 - 10.4.4. SAR, fishermen sea and storm safety action groups
 - 10.4.5. Survival in water
- 10.5. Prevention of boat accidents
 - 10.5.1. Collisions
 - 10.5.2. Beaching
- 10.6. Beach disaster preparedness,

- evacuation and protection
- 10.7. First aid and medical services
 - 10.7.1. Stings and poisons
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- 10.8. Fishing operations
 - 10.8.1. General fishing units
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 - 10.10.1. Manuals and charts
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 - 10.10.3. Certification
- 10.11. Legislation and regulations
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- 10.13. The role of intergovernmental cooperation and international bodies
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- 10.14. The role of NGOs

11. References

- 11.1. Private and Internet communications
- Bibliography
Some relevant internet addresses
Sectoral working papers





■ EPIRB UPDATE

By Hugh Walton

Following a series of accidents in the waters surrounding New Britain and New Ireland in the north of Papua New Guinea, local shipping operator, Mr Peter Sharp, has made news in Papua New Guinea with a call to have small craft operators equipped with EPIRBs.

Mr Sharp, owner of Rabaul Shipping, has been joined in his campaign to have EPIRBs more widely promoted and have safety equipment included in boat purchase packages by a grateful team of UNICEF officers.

The UNICEF team were travelling from Kimbe to Bali Island to carry out a nutrition survey when the engine of their small boat broke down and would not restart. Following a night of drifting, the team was lucky to be rescued by Mr Sharp's vessel, the MV Kondor, more than 20 miles off the coast.

In a statement from UNICEF's head office in Port Moresby, Mr Sharp and the crew of the Kondor were thanked by UNICEF for their rescue efforts. UNICEF also endorsed Mr Sharp's calls to include life jackets and EPIRBs on small craft and called on provincial and national governments to require mandatory safety equipment for small boats used for hire and trade.



■ KIRIBATI TO TAKE THE LEAD?

A meeting of small boat safety stakeholders was recently held in Tarawa, Kiribati. Issues discussed at the meeting included the need to develop and enforce regulations for boats under 7 meters — the vast majority of vessels plying Kiribati waters. It was agreed by meeting participants (including representatives of local Fishermen's Associations) that portable 406 MHz EPIRBs would save the lives of many I-Kiribati fishermen as well as large amounts of public funds spent in SAR operations. With the price of EPIRBs decreasing each year (the current bulk price of 50 units can be as low as A\$350),

modern sea-safety technology is affordable for the average I-Kiribati fisherman!

By introducing EPIRBs as a mandatory piece of safety equipment for small boat operators, Kiribati would become the first Pacific island country to take such an innovative measure for the safety of its fishermen.



■ PNG GETS SERIOUS ABOUT SAFETY

By Hugh Walton

The Government of Papua New Guinea and the Asian Development Bank will be working together to address small boat safety issues in Papua New Guinea through the inclusion of a major sea safety component in a new Community Water Transport Project.

The CWTP is expected to commence in 2006 and is primarily focused on the regeneration of wharves and landings along coastal shipping routes. However, the project will also address sea-safety issues through a number of activities including the preparation of small craft safety guidelines with a focus on establishing minimum safety standards. A boat registration system for currently unregulated boats (below 10-metres in length) and a system for licensing boat operators will also be developed.

Among the project's tasks is to determine and mandate essential safety equipment for new and existing boats and to work towards a country-wide marine radio network to ensure the minimum communications standards for all coastal areas and river communities.

To promote sea-safety issues, the project will design and support awareness seminars on small craft maintenance, operation, and safety of small craft. Appropriate local government staff, village leaders, and community officials will be trained to carry out inspections of boats at traditional landing sites. There will also be community-wide safety training on small craft safety precautions, vessel inspection checklists, procedures to deal with emergencies at sea, and other safety measures.

In addition, the project will support the development of skills and coordination mechanisms to enhance existing search and rescue (SAR) operations and assets and will assist the new PNG Maritime Safety Authority to develop a formal SAR action plan through conducting consultation seminars and workshops covering relevant public and private sector stakeholders. This will include the introduction of formal marine accident reporting and investigation at local and provincial government levels, coordinated by the planned MSA.

Want to find out more on Sea Safety?

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