

**MARINE POLLUTION RISK ASSESSMENT  
FOR THE PACIFIC ISLANDS REGION  
(PACPOL Project RA1)**

**Volume 2: Appendices**

**for  
Marine Pollution Programme,  
South Pacific Regional Environment Program (SPREP)**

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# 1 APPENDIX 1: CONTACT LIST

We extend our sincere thanks to all of those who assisted with our quest for data. This contact list features people who have provided direct information on marine traffic patterns in the Pacific Islands region. Many more people contributed significantly by directing us to the eventual sources. To those we have inadvertently missed, our apologies.

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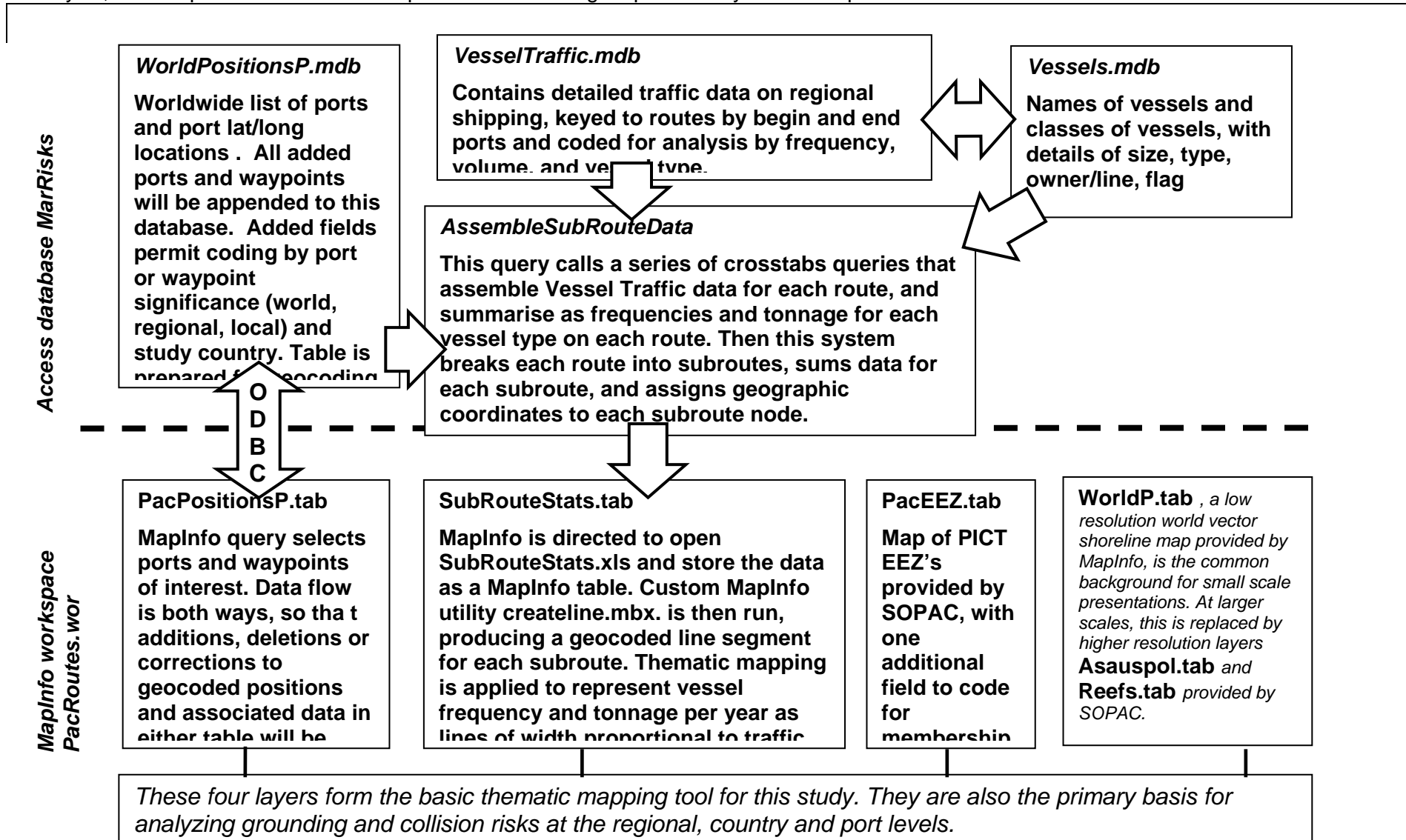
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## 2 APPENDIX 2: DATABASE STRUCTURE: ACCESS DATABASES AND MAPINFO GIS

The organizing principle for analysis was that Microsoft Access would be used as far as practical for primary data storage and statistical analysis, with MapInfo GIS for thematic presentations and geospatial analyses of risk potential.



Access database *MarRisks*

**Casualties.mdb**  
Database of PICT region marine incidents, prepared for MapInfo geocoding in Pacific-centered convention. Casualties contains information from previous "Ship Groundings ..." SPREP report updated by

**NQ2000.txt**  
Data on the actual positions of ships reporting to the International Meteorological Office Voluntary Observing Ships program. This information is opened into MapInfo table NQ2000ByVesselType and

**FishActiv.mdb**  
Database of fishing activities, including transshipment, derived from FFA annual reports. Because the information will relate mainly to areas rather than lines (courses) or points (ports)

MapInfo workspaces

**Casualties.tab**  
MapInfo thematic map showing casualty locations, by type and severity. Info Tool permits interactive reference to Casualties database text details.

**NQ2000ByVesselType.Tab**  
*Allows us to compare the actual position sequences of large commercial vessels with the routes inferred from interviews and sailing directions.*

**FishActiv.tab**  
MapInfo thematic map showing longline and purse seine tuna fishing activity..

**EnvSensP.tab**  
Placenames and locations associated with discussions of environmental sensitivity, ballast/deballast operations, etc. Locations digitised

**Auxiliary databases and map layers**

### 3 APPENDIX 3: VESSELS, POSITIONS AND TRAFFIC

The Microsoft Access database MarRisk2.mdb contains all of the raw data on vessels, vessel traffic, positions and routes. The primary tables are quite large – about 1911 vessel traffic records for 656 vessels over 5017 route segments between 918 positions. Here we present the database table structures as an introduction to the electronic databases, which are provided on compact disk. Printed records can be obtained by running the report utilities PrintVessels, PrintVesselTraffic PrintPacPositionsP and PrintRoutesSubRoutes provided in MarRisk2.mdb:.

The “2” in MarRisk2.mdb refers to the fact that it is an Access 2002 database. MarRisk.mdb is the same data and functionality in an Access 97 database.

#### Structure of Microsoft Access database MarRisk2.mdb

##### Table: ISO3166CountryCodes

###### Properties

ISO 3166 is the list of official country names, two-character country codes and 3-character codes.

###### Columns

Name	Type	Size
ID	Long Integer	4
Country	Text	50
ISO2	Text	5
ISO3	Text	5
ISONumber	Text	5

SPATIALCOLUMN	Text	32
DB_X_LL	Double	8
DB_Y_LL	Double	8
DB_X_UR	Double	8
DB_Y_UR	Double	8
COORDINATESYSTEM	Text	254
SYMBOL	Text	254
XCOLUMNNAME	Text	32
YCOLUMNNAME	Text	32

##### Table: PositionTypes

###### Properties

Codes to distinguish position types, for example P1 for major world ports, W1 for ocean waypoints.

###### Columns

Name	Type	Size
ID	Long Integer	4
Position_Type	Text	2
Comment	Memo	

##### Table: PositionTypes

###### Properties

List of standard codes to distinguish positions by type, for example P1 for major world port, W for waypoint.

Name	Type	Size
ID	Long Integer	4
Position_Type	Text	2
Comment	Memo	-

##### Table: MAPINFO MAPCATALOG

###### Properties

MapInfo internal bookkeeping

###### Columns

Name	Type	Size
SPATIALTYPE	Double	8
TABLERNAME	Text	32
OWNERNAME	Text	32

##### Table: RoutesSubRoutes

###### Properties

Table of the subroutes that form the line segments of each route from port to port. All Routes and Subroutes are named by their begin and end position codes from WorldPositionsP.

###### Columns

Name	Type	Size
MAPINFO_ID	Long Integer	4
RouteName	Text	11
PACPOLArea	Text	1
SubRouteBegin	Text	5

SubRouteEnd	Text	5
OrderInRoute	Integer	2
SubRouteName	Text	10

---

**Table: Vessels**

**Properties**

Vessel names, tonnages, flags and other characteristics.

**Columns**

Name	Type	Size
VesselID	Long Integer	4
Line	Text	30
VesselOrClass	Text	30
VesselType	Text	5
Flag	Text	5
GRT	Long Integer	4
LOA	Integer	2
TEU	Integer	2
DWT	Long Integer	4
YearBuilt	Integer	2
SpeedKn	Single	4
Passengers	Integer	2
Crew	Integer	2
VesselComment	Memo	-

---

**Table: VesselTraffic**

**Properties**

The main table of detailed data on traffic from port to port by vessel and voyages/year.

**Columns**

Name	Type	Size
VeTrID	Long Integer	4
VesselOrClass	Text	30
RouteBegin	Text	5
RouteEnd	Text	5
Variant	Text	1
RouteName	Text	11
Frequency	Single	4
Comment	Memo	-
DataYear	Text	5
DataCollBy	Text	3
DataEntryBy	Text	3
LastEditBy	Text	3
LastEditDate	Date/Time	8

---

**Table: VesselTypes**

**Properties**

**Columns**

Name	Type	Size
VeTyID	Long Integer	4
ListOrder	Integer	2
VesselType	Text	5
VesselTypeDef	Text	50
DefaultGRT	Long Integer	4
DefaultDWT	Long Integer	4
DefaultTEU	Integer	2
DefaultPopulation	Integer	2
Comment	Memo	-

**Table: WorldPositionsP**

**Properties**

A large list of world ports, plus ports and waypoints added for this study, coded for position type, and including coordinates in Lat/Long by decimal minutes (traditional) and decimal degrees (for MapInfo)XCOORDP contains decimal degree longi in Pacific-centered format (0-360 degrees eastward)

**Columns**

Name	Type	Size
MAPINFO_ID	Long Integer	4
Position	Text	50
P_Code	Text	5
Country	Text	50
C_Code	Text	5
Position_Type	Text	5
Paclsland	Text	5
Latitude	Text	10
Longitude	Text	11
XCOORD	Single	4
YCOORD	Single	4
XCOORDP	Single	4

---





## 4 APPENDIX 4: CASUALTIES

**Provisional database of ship casualties with significant potential to cause marine pollution. January 1976 – October 2000, in 22 Pacific Island countries and territories**

### Key to abbreviations

#### Vessel Type

Toil	Tanker (crude oil and petroleum products)
Tchem	Tanker (chemicals)
Tlpg	Tanker (LPG)
Ctr	Container vessel
RoRo	Roll-on roll-off cargo vessel
CG	Mixed cargo (break bulk)
Bulk	Bulk cargo
OBO	Oil-bulk-ore
R	Reefer
FC	Ferry (Cargo and passenger)
FP	Ferry (primarily passenger)
SP	Specialized function
FV	Fishing Vessel
LC	Landing Craft
Other	Other
CL	Cruise Liner
U	Unknown_

#### Incident type

G	Grounding (details unknown)_
GP	Grounding under power
GD	Grounding adrift
C	Collision
F	Fire
M	Mechanical
H	Hull
S	Storm
O	Other
U	Unknown

#### Severity of incident

T	Total loss
P	Partial loss
M	Minor Damage
U	Unknown

## Structure of database CasualtyReports2.mdb

**Table: Casualties**

**Properties**

The table of casualties with significant pollution potential in the Pacific Islands Region, 1976-2002 – coded by type and severity, and georeferenced.

**Columns**

Name	Type	Size
ID	Long Integer	4
VesselName	Text	50
Flag	Text	20
Type	Text	20
GRT	Long Integer	4
YearBuilt	Integer	2
DateIncident	Date/Time	8
CountryOfIncident	Text	50
LocationName	Text	50
Latitude	Text	10
Longitude	Text	11
TypeIncident	Text	5
Severity	Text	5
Comments	Text	255
YCOORD	Single	4
XCOORD	Single	4
XCOORDP	Single	4
CoordChangeFlag	Yes/No	1

**Table: IncidentTypeCodes**

**Properties**

**Columns**

Name	Type	Size
ID	Long Integer	4
IncidentTypeCode	Text	50
IncidentType	Text	50

**Table: ISO3166CountryCodes**

**Properties**

**Columns**

Name	Type	Size
ID	Long Integer	4
Country	Text	50
ISO2	Text	5
ISO3	Text	5
ISONumber	Text	5

**Table: MAPINFO MAPCATALOG**

**Properties**

MapInfo internal bookkeeping

**Columns**

Name	Type	Size
SPATIALTYPE	Double	8
TABLERNAME	Text	32
OWNERNAME	Text	32
SPATIALCOLUMN	Text	32
DB_X_LL	Double	8
DB_Y_LL	Double	8
DB_X_UR	Double	8
DB_Y_UR	Double	8
COORDINATESYSTEM	Text	254
SYMBOL	Text	254
XCOLUMNNAME	Text	32
YCOLUMNNAME	Text	32

**Table: VesselTypes**

**Properties**

Standard vessel type categories, with default tonnage values.

**Columns**

Name	Type	Size
VeTyID	Long Integer	4
ListOrder	Integer	2
VesselType	Text	5
VesselTypeDef	Text	50
DefaultGRT	Long Integer	4
DefaultDWT	Long Integer	4
DefaultTEU	Integer	2
DefaultPopulation	Integer	2
Comment	Memo	-

## Detailed contents of table Casualties

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built  Longitude	Comments
<u>Hoto Maru</u> - -	JP	U U	60 T	1978	Sank. All crew rescued.
<u>Celtic Kiwi</u> - -	NZ 27-Oct-1991	U O	0 T	0	Sank after leaving NZ. 13 crew members rescued by 'Rock Steady' and brought to NZ. Was carrying 850 tonnes of cement.
<u>Michelangelo</u> American Samoa Reef Outside Tafuna	- 22-Dec-1978 Airport, Tutuila	FV GP 14°21.00'S	1066 T	1970 170°49.00'W	Stranded, refloated & proceeded to Whangarei for repairs. Vessel sank whilst proceeding to Whangarei.
<u>Hsiung Hsing</u> American Samoa Off Tutuila Island	- 09-Jun-1980	FV GP 14°17.00'S	187 T	1977 170°39.00'W	Wrecked. During salvage operations ship capsized
<u>Jui Man No.3</u> American Samoa Off Pago Pago	- 08-Apr-1981	FV GP 14°16.70'S	216 P	1969 170°35.20'W	Wrecked in heavy weather. Cargo fish. Extensive damage to double bottom allowed small quantity of fuel to leak out. Fairly extensive damage. Fire after grounding.
<u>Kwang Myung No. 65</u> American Samoa Pago Pago, Samor Island	- 31-Oct-1982	FV GP 14°18.00'S	352 T	1968 170°38.00'W	Stranded, refloated, taken to inner port where sank, remaining partly submerged. Oil and fuel removed from vessel. 12 tonnes of oil collected from beach and disposed of.
<u>Vessel Name</u> Country of	Flag Date of Incident	Type Type	GRT Severity	Year Built	Comments

<b>Incident Location Name</b>	<b>Incident Latitude</b>	<b>Incident Longitude</b>			
<b><u>Young Kwang No.1</u></b> American Samoa Aunun (Aunuu?) Island	- 22-Jun-1985	FV GP 14°17.00'S	233 T	1963	Wrecked in heavy weather. Vessel holed and engine room flooded
<b><u>Fotu o Samoa</u></b> American Samoa Reef at Fa'asouga Point, Tau Island	- 22-Mar-1991	LC GP 14°17.00'S	271 P	1979	Stranded, refloated, taken to Pago Pago for survey and repair. Bottom buckled and distorted. Damage to a tank and rudder.
<b><u>Koram No.3</u></b> American Samoa Pagopago Harbour	- 08-Dec-1991	FV GD 14°17.00'S	304 T	1973	Wrecked on reef during Cyclone Val (6-10 Dec 1991). Removed from reef and sunk in deep water on 16 Mar 2000.
<b><u>Koram No.1</u></b> American Samoa Pagopago Harbour	- 08-Dec-1991	FV GD 14°17.00'S	304 T	1973	Wrecked on reef during Cyclone Val (6-10 Dec 1991). Later cut down to water line and scrap metal dumped at sea.
<b><u>Kwang Myung No.63</u></b> American Samoa Pago Pago Harbour	- 08-Dec-1991	FV GD 14°17.00'S	352 T	1968	Wrecked on reef during Cyclone Val (6-10 Dec 1991). Later cut down to water line and scrap metal dumped at sea.
<b><u>Vessel Name</u></b> <b>Country of Incident</b> <b>Location Name</b>	<b>Flag</b> <b>Date of Incident</b>	<b>Type</b> <b>Type Incident</b> <b>Latitude</b>	<b>GRT</b> <b>Severity</b>	<b>Year Built</b> <b>Longitude</b>	<b>Comments</b>
<b><u>Kwang Myung No.51</u></b> American Samoa Pago Pago Harbour	- 08-Dec-1991	FV GD 14°17.00'S	347 T	1967	Wrecked on reef during Cyclone Val (6-10 Dec 1991). Later cut down to water line and scrap metal dumped at sea.
<b><u>Miga No.5</u></b>	-	FV	0	0	Wrecked on reef during Cyclone Val (6-10 Dec 1991).

<b>American Samoa</b> Pagopago Harbour	08-Dec-1991	GD	T	170°40.00'W	Later cut down to water line and scrap metal dumped at sea.
<b>Yute No.1</b>	-	FV	0	0	Wrecked on reef during Cyclone Val (6-10 Dec 1991).
<b>American Samoa</b> Pagopago Harbour	08-Dec-1991	GD	T	170°40.00'W	Removed from reef and sunk in deep water 19 Mar2000.
<b>Korbee No.7</b>	-	FV	304	1974	Wrecked on reef during Cyclone Val (6-10 Dec 1991).
<b>American Samoa</b> Pago Pago Harbour	08-Dec-1991	GD	T	170°40.00'W	Later cut down to water line and scrap metal dumped at sea.
<b>Kwang Myung No.72</b>	-	FV	346	1969	Wrecked on reef during Cyclone Val (6-10 Dec 1991).
<b>American Samoa</b> Pagopago Harbour	08-Dec-1991	GD	T	170°40.00'W	Later cut down to water line and scrap metal dumped at sea.
<b>Kwang Myung No.58</b>	-	FV	347	1968	Wrecked on reef during Cyclone Val (6-10 Dec 1991).
<b>American Samoa</b> Pagopago Harbour	08-Dec-1991	GD	T	170°40.00'W	Later cut down to water line and scrap metal dumped at sea.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Amiga No.5</u> American Samoa Pago Pago	- 10-Dec-1991	FV GP 14°17.00'S	284 T	1970 170°40.00'W	Stranded during Cyclone Val
<u>Kao Ya No.137</u> American Samoa Pagopago Harbour	TA 13-Nov-1996	FV C 14°21.00'S	560 P	1990 170°40.00'W	Collided with BHP fuel dock causing a spill of 600 gallons of oil into harbour.
<u>Adriatic Sea</u> American Samoa 90 miles north of Tutuila	US 23-Jan-1998	FV S 12°40.00'S	1559 T	1970 170°50.00'W	Sank in rough seas. Crew safely rescued.
<u>Capt. Cristiano da Rosa</u> American Samoa One mile off American Samoa	US 04-Oct-1998	FV M 13°35.00'S	1348 M	1986 169°42.00'W	Reported taking on water. Safely towed to Pagopago
<u>Laura</u> Australia Near Wessel Island	FR 26-Feb-1998	CG M 10°50.00'S	0 T	0 137°30.00'E	Sunk. Developed engine problems in rough seas and developed a heavy list. Crew abandoned vessel and were later rescued. Vessel was being towed when it sank.
<u>Teknik Putra</u> Australia Thursday Island	PA 24-Jan-2000	Other GP 10°34.28'S	1009 M	1980 142°14.90'E	Vessel grounded lightly. Refloated with tug assistance. Minor damage to propellor, none to hull.
<u>Pratidina 05</u> Australia Numar Reef, Torres Strait	ID 13-Nov-2000	FV U	0 T	0	Vessel grounded. Ten crew removed and returned to Indonesia. Vessel not found by subsequent aircraft patrols, presumed sunk.
<u>Doric Chariot</u>	GR	Bulk	0	0	Vessel ran aground northbound after failing to execute a



<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Edna</u> Cook Islands Atui (Atiu) Island	- 28-Nov-1990	CG GD 20°02.00'S	132 P	1918 158°07.00'W	Stranded after dragging anchors in heavy weather
<u>Fiammetta</u> Cook Islands Avarua Harbour	GB 13-Aug-1991	U GD 21°12.00'S	9 T	1957 159°47.00'W	Dragged anchor, drifted onto rocks and sank.
<u>Marthalina</u> Cook Islands Penrhyn Island	NZ 21-Feb-1992	U GP 09°00.00'S	0 M	0 158°00.00'W	Ran aground. Later floated off with no damage.
<u>Acadea B</u> Cook Islands Rarotonga	US 16-Mar-1992	FV S 21°12.00'S	M	1977 159°47.00'W	Damaged while berthed at Rarotonga during Cyclone 'Gene'. Vessel had disabled engine.
<u>Acadea B</u> Cook Islands -	CK 02-Sep-1995	CG O 16°56.00'S	69 T	0 159°10.00'W	Sank enroute to Northern Islands. Overloading of cargo possible cause
<u>Kaunitoni</u> Cook Islands 350 nautical miles east of Rarotonga	FJ 02-Sep-1995	FP M 21°13.54'S	384 M	1975 154°18.34'W	Disabled (engine breakdown) and adrift at sea on way from Rarotonga to Mururoa Atoll to take part in protest against resumption of nuclear testing. Towed to Rarotonga for repairs.



<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>	
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>			
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>			
<u>Orongo</u>	-	Tug	0	0		
<u>Cook Islands</u>	04-Jan-1996	C	P		Tug and lighter went aground in heavy rain and poor visibility. Subsequently salvaged.	
Reef at Aitutaki, north of passage		18°50.00'S	159°40.00'W			
<u>Kura Ora</u>		PF	U	299	1967	Foundered after ingress of water in hold through crack in shell plating.
<u>Cook Islands</u>	30-Sep-1996	H	T			
Two miles off Pukapuka		10°40.00'S	165°35.00'W			
<u>Avatapu</u>		NZ	FC	0	0	Abandoned by passengers/crew. Vessel since not sighted and presumed to have sunk
<u>Cook Islands</u>	21-Feb-1997	O	T			
-		20°30.00'S	160°30.00'W			
<u>Aroa Nui</u>		CK	CG	117	1968	Stranded. Engine room holed and flooded. Expected to be constructive total loss.
<u>Cook Islands</u>	15-Jun-1998	GP	T			
Reef at Atiu		19°59.00'S	158°08.00'W			
<u>Thor Lisbeth</u>			Ctr	1395	0	Ran aground on a reef. Able to free herself. Proceeded to Rarotonga
<u>Cook Islands ?</u>	06-Nov-1995	GP	M			
-		19°31.40'S	159°43.72'W			
<u>Ika Vuka</u>		-	CG	180	1944	Stranded, refloated and taken to Savusavu Bay. Condemned. Cargo copra.
<u>Fiji</u>	27-Feb-1977	GP	T			
Reef off Toberua Island		17°58.00'S	178°45.00'E			

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Ji Nam No.22</u></b> Fiji Southern Reef	- 16-Feb-1978	FV GP 18°30.00'S	194 P	1965 177°55.00'E	Grounded, refloated and towed to Suva for repairs.
<b><u>Nam Hai No.231</u></b> Fiji Off Suva Harbour on reef	- 14-Mar-1978	FV GP 18°10.00'S	159 T	1965 178°25.00'E	Grounded in heavy rain on dark night. Subsequently capsized in heavy seas during 2nd salvage attempt. Crew taken off and vessel abandoned. Cause unknown currents. Attempts to salvage remaining cargo (bulk fertiliser)
<b><u>Mobil Producer</u></b> Fiji North of Viti Levu	- 09-Jun-1978	Toil GP 17°12.90'S	18258 M	1974 177°33.40'E	Stranded on soft mud patch. Refloated without any assistance, examined and proceeded. Minimal damage. Sailed for Singapore.
<b><u>Akhilles</u></b> Fiji On Reef Suva Harbour	- 15-Nov-1978	FV GP 18°10.00'S	2654 M	1970 178°24.00'E	Grounded, refloated with assistance of sister ships and continued on voyage.
<b><u>Cenpac Rounder</u></b> Fiji Votualailai Reef, Off Suva	- 28-Mar-1979	FP GP 18°30.00'S	3179 T	1961 177°40.00'E	Stranded in heavy weather (winds from passing cyclone). Refloated, towed to Suva and thence taken to Busan and broken up.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<b><u>Colville</u></b>	-	CG	123	1943	Stranded and sank. Raised, repaired and refitted.
<b>Fiji</b>	18-Apr-1979	GP	T		
Reef off Tavua		17°20.00'S		177°53.00'E	
<b><u>Tui Cakau II</u></b>	-	RoRo	1965	1961	Stranded, refloated without assistance and continued on voyage. Some bottom damage.
<b>Fiji</b>	26-Jul-1979	GP	M		
Off Lautoka		17°31.00'S		177°24.00'E	
<b><u>Kwang Myung No.9</u></b>	-	FV	236	1966	Stranded, refloated and taken to Suva for repairs. Prior to refloating fish and bait were removed by helicopter. Moderate damages to 80% of bottom extending to P&S bilge keels. No damage to stern gear and skeg.
<b>Fiji</b>	22-Mar-1980	GP	P		
Cakaulekaleka Reef, SW of Vatulele		18°28.00'S		177°37.00'E	
<b><u>Pacific Gas</u></b>	-	TIng	903	1967	Stranded, refloated without assistance and proceeded to Suva for discharge. Shell plating set up in isolated places.
<b>Fiji</b>	08-Nov-1980	GP	P		
1 mile north of Navula Light		17°53.00'S		177°12.00'E	
<b><u>Nam Pyung No.5</u></b>	-	FV	218	1962	Stranded, refloated with tug assistance and proceeded for inspection. No repair was necessary, returned to service.
<b>Fiji</b>	24-Nov-1980	GP	M		
Reef In Suva Harbour		18°10.00'S		178°24.00'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Tokerau</u> Fiji Reef 37 km NNW of Yandua Island	- 24-Dec-1980	CG GP 16°28.00'S	349 T	1937 178°12.00'E	Stranded, refloated with assistance and towed to Suva where brokem up. Entire bottom hull corrugated, keel strake set up and buckled, 3 propeller blades bent, main engine and auxiliary engine water damaged.
<u>Stardust II</u> Fiji Suva Harbour (also reported as "off Nadi")	- 15-Jan-1981	FP GP 18°10.00'S	159 P	1945 178°24.00'E	Stranded after 73-knot winds. Returned to service. Needed port propellor shaft and minor repairs to the timber hull.
<u>Taoniu</u> Fiji In Suva Harbour	- 15-Jan-1981	CG GD 18°10.00'S	514 M	1958 178°25.00'E	Stranded during Cyclone Arthur. Refloated with no serious damage.
<u>Dae Yang No.10</u> Fiji Off Suva Harbour	- 30-Dec-1981	FV GP 18°10.00'S	192 T	1964 178°25.00'E	Stranded during Cylcone Eric. Refloated and taken to Suva. Scuttled. At least one double bottom fuel tank breached and oil leaked to sea.
<u>Viti</u> Fiji Tivoa Reef	- 27-Aug-1982	FP GP 17°37.10'S	114 T	1941 177°21.50'E	Struck reef and sank approx. 5 miles off Lautoka. All crew members and passengers rescued.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Kekanui</u></b> Fiji Suva Harbour	- 02-Mar-1983	CG GD 18°08.00'S	400 M	1954 178°25.00'E	Stranded after dragged anchor during Cyclone Oscar (1-2 Mar 1983). Refloated by own means and towed back to anchorage by Ports Authority tug where re-anchored.
<b><u>Fiji Gas</u></b> Fiji Reef north of Lautoka	- 22-Oct-1983	TIng GP 17°29.00'S	1587 M	1972 177°26.00'E	Stranded, refloated without assistance. No major bottom damage, continued on voyage to Labasa.
<b><u>Pacific Shell</u></b> Fiji Labasa River	- 15-Jan-1984	Toil GP 16°24.00'S	493 M	1975 179°20.00'E	Touched bottom in river, continued on voyage, surveyed at Suva, where repairs effected. Minor repairs.
<b><u>Ika No.5</u></b> Fiji Cakaulevu Reef, Lau	- 27-Apr-1984	FV GP 18°52.00'S	105 P	1980 178°22.00'W	Ran aground on reef. All passengers and crew rescued, no injuries. Vessel's hull extensively damaged, oil tanks leaking. Refloated, towed to Suva, repaired and returned to service.
<b><u>Independence</u></b> Fiji Vatu Vula Reef, near Makogai Island	- 07-May-1984	FV GP 17°28.00'S	125 P	1983 178°55.00'E	Stranded, refloated with assistance and towed to Suva. Later repaired and returned to service. Crew rescued. Hull holed.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<b><u>Na Mataisau</u></b>	-	FC	274	1978	Sustained main engine breakdown 6 miles SW of Moala Island, struck reef and sank off Moala after dragging anchor during Cyclone Eric. 2 died. Mast and other gear removed and recovered and vessel left as lies in 15-18 meters of water.
<b>Fiji</b>	17-Jan-1985	GD	T		
Reef off Moala Island		18°44.00'S		179°50.00'E	
<b><u>Kekanui</u></b>	-	CG	400	1954	Stranded whilst anchored in Suva during Cyclone Nigel. Sank in Northern Anchorage in heavy weather. Vessel was looted by local fishermen.
<b>Fiji</b>	18-Jan-1985	GD	T		
Northern Anchorage, Suva Harbour		18°07.00'S		178°25.00'E	
<b><u>Matthew Flinders</u></b>	-	FP	1002	1954	Dragged anchor and stranded on reef during Cyclone Gavin. Refloated and proceeded to Lautoka. Refloating hampered by heavy winds and rough seas, tug assisted. Some bottom and propeller damage.
<b>Fiji</b>	05-Mar-1985	GP	P		
Reef in Saweni Bay		17°37.00'S		177°25.00'E	
<b><u>Young Kwang No.1</u></b>	-	FV	233	1963	Stranded whilst departing Suva in heavy weather, refloated without assistance and anchored. Returned to service. Port bilge keel buckled.
<b>Fiji</b>	13-Apr-1985	GP	P		
Suva Harbour		18°10.00'S		178°24.00'E	
<b><u>Pacific Shell</u></b>	-	Toil	493	1975	Stranded whilst on voyage from Labasa to Lautoka. Refloated without assistance and proceeded on voyage. Minor damage.
<b>Fiji</b>	04-May-1985	GP	M		
Coral reef between Labasa and Lautoka		16°25.00'S		178°17.00'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<b><u>Ika No.1</u></b>	-	FV	114	1972	Stranded whilst manoueuvering through channel. Refloated and returned to Lautoka. Subsequently flooded, towed and beached. Part of vessel badly damaged.
<b>Fiji</b>	11-Feb-1986	GP	P		
Mana Island channel		17°40.00'S		177°07.00'E	
<b><u>Talofa</u></b>	-	LC	141	1984	Capsized and stranded after sustaining steering trouble. Refloated and towed to Suva for repairs. 8 crew members missing.
<b>Fiji</b>	15-Apr-1986	GD	P		
Reef at Yasawa Island		16°42.00'S		177°35.00'E	
<b><u>Kaunitoni</u></b>	-	FP	384	1975	Stranded in good weather, refloated and taken to Suva for repairs. All passengers and crew safely rescued. Hull bottom holed.
<b>Fiji</b>	08-Aug-1986	GP	P		
Mabulithi Reef, south of Gau Island		18°13.00'S		179°18.00'E	
<b><u>Boral Gas</u></b>	-	TIng	1897	1970	Stranded, refloated without aid. Slightly damaged.
<b>Fiji</b>	19-Apr-1987	GP	M		
Entrance to Navula Passage, Momi Bay, Nadi		17°55.06'S		177°13.00'E	
<b><u>Shin Chyun No.7</u></b>	-	FV	163	1974	Stranded, refloated and towed to Suva for repairs. Sold, renamed 'Tasu No.2'. Engine room flooded.
<b>Fiji</b>	22-Jun-1988	GP	P		
300 miles SW of Fiji		21°40.00'S		174°32.00'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<b><u>Matthew Flinders</u></b>	-	FP	1002	1954	Wrecked. Passengers and crew rescued. Hold and engine room flooded.
<b>Fiji</b>	11-Jul-1989	GP	T		
Navatu Reef, SE of Moala Island		18°39.00'S		179°33.00'W	
<b><u>Mollie Dean</u></b>	FJ	U	110	0	Sank. Passengers rescued by Fiji Navy vessel. Salvage not possible.
<b>Fiji</b>	13-Aug-1991	H	T		
8 miles SE of Beqa		18°32.00'S		178°17.00'E	
<b><u>Polynesian Link</u></b>	-	Ctr	0	0	Sank in Suva Harbour alongside the Kings Wharf obstructing part of wharf. Floating containers of meat were looted. Vessel a constructive total loss. Subsequently wreck was removed and scuttled in deep water outside Suva Harbour.
<b>Fiji</b>	15-Oct-1991	O	T		
Port of Suva		18°08.00'S		178°25.00'E	
<b><u>Wairua</u></b>	-	FP	618	1961	Wrecked, 13 miles NE of Cape Washington, off Naikorokoro
<b>Fiji</b>	08-Aug-1993	GP	T		
Near Namalata Reefs		18°58.00'S		178°08.00'E	
<b><u>Arauco</u></b>	-	Bulk	15080	1979	Stranded, refloated with tug assistance and taken to Savusavu for temporary repairs. Taken to Singapore for repairs. Sustained damage to forepeak double bottom tank and water in one hold.
<b>Fiji</b>	15-Feb-1994	GP	P		
Reef off Labasa		16°34.00'S		179°23.00'E	



<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Congresso del Partido</u> Fiji -	CU 09-Jun-1994	Bulk M 19°47.71'S	9626 P	1975 176°00.44'E	Broke down and drifted without power en route for Noumea. Vessel located and towed to Fiji. Some damages. Cargo bagged fishmeal.
<u>Kin Sin II</u> Fiji 90 km south of Nadi	- 10-Jul-1994	FV F 18°37.00'S	0 T	0 177°22.00'E	Taiwanese trawler reported burning as a result of an internal explosion. Crewmen rescued by NZ Air Force.
<u>Rybnovsk</u> Fiji Suva	MA 06-Oct-1994	Ctr O 18°08.00'S	0 M	0 178°25.00'E	Listed 45 degrees during unloading. Two dock workers injured. Water pumped from engine room to stabilize vessel.
<u>Garden Sun</u> Fiji Nanuku Reef	- 13-Jan-1995	FV GP 16°40.00'S	100 M	0 179°26.00'W	Grounded due to poor navigation. Refloated without assistance on high tide.
<u>Archer</u> Fiji Waters within Suva Harbour	- 03-Feb-1996	FV F 18°08.00'S	0 T	0 178°25.00'E	Caught fire at wharf. Towed into harbour by vessel 'Playing Hookey' and navy vessel 'Maika Tora'. After fire out, towed r back to Kings Wharf. Vessel later the centre of dispute, unlawfully removed and stripped of equipment.

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<u>Christine</u> Fiji	US 27-Dec-1996	Other 0 0 GP	0 0 P	0 0	Yacht. Crew rescued by Fiji Navy. Lower portion flooded. Salvage operation by Marine Pacific Ltd.
-				000°00.00'E	
<u>Dong Huai</u> Fiji	- 30-Jan-1997	FV O	0 T	0	Oil spill from sinking vessel. Firefighters used spill dispersant to lessen pollution risk. Vessel abandoned about a year before the incident.
Near naval base, Walu Bay		18°07.00'S		178°25.00'E	
<u>Bulou Ni Ceva</u> Fiji	FJ 07-May-1997	FP M	0 M	0	Towed to Suva Harbour. Sustained minor damage. Back to regular schedule.
-		18°15.00'S		178°26.00'E	
<u>Arctic P.</u> Fiji	BA 25-May-1997	Other GP	0 P	1970	Serious bottom damage sustained after went aground. Yacht.
-					
<u>Jubilee</u> Fiji	JP 18-Jul-1998	RoRo GP	0 T	0	Grounded, flooded and sank.
Reef off Nabuwalu					
<u>Sofe</u> Fiji	FJ 22-Jul-1998	RoRo S	997 M	1968	Developed heavy list in rough seas. Damaged vehicles on board.
Near Naselai Passage		18°12.00'S		178°35.00'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Ulu 1</u>	FJ	FV	0	0	Sank.
Fiji	27-Aug-1998	U	T		
Udu Point, Northern Coast of Vanua Levu		16°00.00'S		179°54.00'W	
<u>Fortuna No.8</u>	-	U	0	0	Ran aground. Initial efforts to refloat vessel failed. Authorities working to refloat the vessel. No casualties reported.
Fiji	21-Sep-1999	GP	P		
Near Mavutulevu Village, Viti Levu					
<u>Kamoea</u>	TO	U	0	0	Capsized. Navy sent a search for the vessel and five missing seamen the following day.
Fiji	21-Dec-1999	U	T		
Lau Waters		19°16.00'S		179°17.00'W	
<u>Pacific Mariner</u>	FJ	Toil	1384	1977	Tanker grounded near Shell Oil terminal, Taveuni. Area to be resurveyed indicates possible uncharted obstacle.
Fiji	27-Feb-2000	G	M		
Waiyevo, Taveuni		16°52.50'S		159°57.00'E	
<u>Charng Yih No.12</u>	TA	FV	230	1974	Ran aground in bad weather and rough seas. Engine room subsequently flooded causing power shut down. Crew rescued by Fiji naval vessel. No salvage operation
Fiji	27-Jul-2000	GP	T		
Mabulithi Reef intended		18°14.00'S		179°18.00'E	due to severe structural damage.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>SK</u> Fiji King's Wharf, Suva Harbour	FV 09-Nov-2000	542 C 18°09.00'S	1986 M	Bow of Sung Kyung No. 507	contacted stern of Direct Kiwi(16281 GT, built 1997). One crewman of Sung Kyung No.507 killed. Master Direct Kiwi states his vessel moored and discharging at time.
<u>Chelsea</u> Fiji Southern Lau	FJ 12-May-2001	FV GP 19°30.00'S	0 U	0	Grounded on reef near uninhabited island in southern Lau. Crew rescued by naval vessel "Kiro". Owner Steve Ayers considering salvage.
<u>Grete Theresa</u> Fiji Navula Passage	VU 01-Jul-2002	Toil GP 17°54.82'S	821 M	1996	Grounded under power on sandy bottom en route Vuda Point to Port Vila. Freed by tug "Maika Tora 4 Jul 02, inspected Vuda Point and proceeded.
<u>Massachusetts</u> Fiji Southern Lau	US 16-Jul-2002	FV GP 19°30.00'S	0 T	0	Attempts to refloat by South Seas Towage , United Salvage unsuccessful. Insurer liable for \$525,000 loss and possible costs of removal. Report variously refloated by Seamech Fiji Ltd on 21 Sep 02, and still aground on 23 Oct 02.
<u>Niuselelevata</u> Fiji Northern Anchorage	FJ 08-Nov-2002	U U 18°07.44'S	0 U	0	Cause of sinking unknown. Investigation under way.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Tai Nui</u></b> French Polynesia Off Papeete	- 21-Dec-1983	FV GP 17°30.00'S	120 T	1973 149°35.00'W	Stranded and sank
<b><u>Taporo II</u></b> French Polynesia Reef off Nukutavake, Tuamotu Archipelago	- 25-Nov-1984	CG Gp 19°30.00'S	343 T	1963 138°40.00'W	Sprang leak in engine room and beached on reef to save cargo and lives of passengers and crew.
<b><u>Byron No.16</u></b> French Polynesia Tetiaroa Island	- 08-Sep-1988	Rfr GP 17°00.00'S	1872 P	1970 149°00.00'W	Stranded, refloated after cargo offloaded and towed to Japan where repairs effected. Later in service. Hull bottom and steering gear damaged, rudder bent and prop blade twisted. Vessel later trading under name 'Sky Frost'.
<b><u>Dory 2</u></b> French Polynesia Off Makatea Island	FR 13-Aug-2002	FC F 15°50.00'S	348 T	1973 148°15.00'W	Caught fire, sank one day later. Passengers and crew rescued with slight injuries.
<b><u>Meiho Maru No.7</u></b> FSM -	- 22-Apr-1979	FV GP 08°03.00'N	349 P	1962 146°44.00'E	Stranded, subsequently refloated & taken to Ishinomaki. Repaired & returned to service.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Etna</u> FSM Yap Harbour	- 25-May-1979	CG GP 09°31.00'N	3654 M	1972 138°08.00'E	Stranded, refloated with tug assistance and berthed at Yap.
<u>Micro Spirit</u> FSM Sandbar near Woleai	- 14-May-1980	CG GP 07°22.00'N	790 M	1978 143°55.00'E	Aground, refloated and reported back in service.
<u>Curacao</u> FSM Ngulu Atoll	- 16-Jan-1982	FV GP 08°33.00'N	367 T	1960 137°28.00'E	Wrecked in heavy weather. Crew rescued. Engine room flooded and tidal. Rudder carrier bolts sheared and rudder stock lifted 15cm, skeg set up.
<u>Hinode Maru No.56</u> FSM Off Truk Island	- 12-Sep-1982	FV GP 07°25.00'N	344 T	1972 151°50.00'E	Stranded and sank.
<u>Kitcho Maru No.28</u> FSM Mint Reef	- 27-Nov-1982	FV GP 08°05.00'N	404 T	1968 154°14.00'E	Wrecked. Extensively damaged. Owners state vessel not to be removed due to extent of damages. Possible cause is captain not making sufficient adjustment for fast moving east tide over reef. MFV 'Fukuwa Maru No.1' approached to give assistance but also got

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<b><u>Fukuwa Maru No.1</u></b>	-	FV 306	1969	Wrecked. Declared a total loss and not removed. Vessel abandoned.	
<b>FSM</b>	28-Nov-1982	GP	T		
Mint Reef		08°05.00'N		154°14.00'E	
<b><u>Conic No.1</u></b>	-	FV	908	1983	Stranded and presumed to have sank.
<b>FSM</b>	30-May-1984	GP	T		
Sorol Island		08°04.00'N		140°28.00'E	
<b><u>Tong Wha No.71</u></b>	-	FV	221	1963	Stranded, refloated and taken in tow to Guam. Subsequently sold. Towed to Manila.
<b>FSM</b>	17-Mar-1985	GP	P		
Near Ifalik Atoll		07°15.00'N		144°27.00'E	
<b><u>Meiho Maru No.17</u></b>	-	FV	432	1972	Stranded, refloated with assistance after several attempts and towed to Ponape. Towed to Hachinohe thence Ishinomaki where repaired and SD. Bottom plate damaged.
<b>FSM</b>	29-Apr-1985	GP	P		
-		05°48.88'N		157°13.35'E	
<b><u>Micronesian Commerce</u></b>	-	-		Ctr	5730 1982 Stranded, refloated and berthed at Yap Pier.
Sailed to					
<b>FSM</b>	02-Nov-1988	GP	P		Palau Islands and thence to Manila. Sustained heavy bottom damage to fuel oil tanks and hull.
Yap,W.C.I.		09°32.00'N		138°10.00'E	
<b><u>Crest 1</u></b>	PH	Bulk	0	0	'Dead in water' following collision with Tenfu (Reefer). No casualties.
<b>FSM</b>	29-Mar-1991	C	P		
-		02°43.00'N		154°06.00'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Golden Camia</u> FSM NE of Yap Island	PH 15-Mar-1992	Bulk O 10°16.00'N	0 T	0 139°30.00'E	Sank. Crew abandoned ship due to shifting of cargo (logs) in heavy fog and rain. Crew safely rescued. Oil slick produced.
<u>Nanshin Maru No.78</u> FSM -	JP 19-Aug-1992	FV U 02°00.00'N	19 T	0 158°07.00'E	Sank. Crew rescued safely.
<u>Yujin Busan</u> FSM 420 miles south of Truk	PA 27-Feb-1994	Toil F 00°20.00'N	1550 T	1974 151°40.00'E	Sank. Attempts to fight a fire in the engine room resulted in the flooding of the vessel. Crew rescued safely.
<u>Oceanus</u> FSM Wenimong Reef at Satawal Island	GR 18-Mar-1994	Bulk GP 07°22.00'N	38891 P	1993 147°02.00'E	Ran aground with 70,000 tons of coal. Refloated after part cargo transferred to barges. Proceeded Guam inspection, Ulsan repairs. Satawal residents sued for damages for pollution by coal, spilled oil and garbage dumped during salvage.
<u>Jin Fwu Yi 366</u> FSM -	TA 06-May-1994	U U 08°47.00'N	0 T	0 151°33.00'E	Vessel missing. Aircraft reported debris.



<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Dang Delima</u>	PA	CG	5903	1985	Stranded, refloated and achored at Ponape. Sailed in tow to Busan after repairs. Fuel tanks holed. Oil pollution.
FSM	16-Jun-1994	GP	P		
Reef at entrance to Ponape Harbour		06°40.00'N		158°25.00'E	
<u>Ocean Harmony</u>	PA	CG	3769	1973	Disabled and adrift with engine problems.
FSM	23-Jun-1994	M	U		
-		08°26.00'N		140°57.00'E	
<u>Deborah</u>	PA	Bulk	4010	1984	Sank. Departed Yap with cargo of logs. Sank but due to cargo drifted 5ft below surface. Crew rescued safely
FSM	20-Sep-1994	O	T		
-		10°23.60'N		135°49.20'E	
<u>Valerie</u>	ME	FV	1127	1983	Sank due to crack or holing of hull. All crew rescued.
FSM	29-Nov-1995	H	T		
-		00°39.00'N		156°38.83'E	
<u>Mister Bill</u>	-	Other	196	1971	Supply vessel. Took water and sank during typhoon 'Fern'. Crew rescued safely.
FSM	24-Dec-1996	S	T		
85 miles NE of Yap Island		11°13.00'N		165°25.00'E	
<u>Mina Maru</u>	JP	FV	0	0	Ran aground. Crew rescued.
FSM	06-Apr-1998	GP	U		
West of Fayu Island		08°33.00'N		151°10.00'E	

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<u>Hung Sun Tai</u>	TW	FV	0	0	Vessel reported adrift and sinking 25 Apr. Six crew rescued by Taiwan longline fv Hung Sun Tsai, length 66 ft. No further sightings 1 may, assumed sunk.
<u>FSM</u>	25-Apr-2001	U	T		
-		09°40.00'N	150°40.00'E		
<u>Cecilia 1</u>	-	LC	365	1990	Flooding in Engine Room through hole (leak?) Patched by Coast Guard Guam. Cargo petrol in barrels.
<u>FSM</u>	20-Jun-2002	H	M		
-		08°23.00'N	142°36.00'E		
<u>Micronesia Sunrise</u>	-	Toil	3535	1971	Reported stranded, refloated and proceeded to Guam for temporary repairs. Sustained a small hole in one tank , fuel transferred to another tank with slight loss of cargo. Oil Pollution.
<u>Guam</u>	19-Oct-1980	GP	P		
Ibay, off Guam		13°32.65'N	144°41.78'E		
<u>Bright Peak</u>	-	Bulk	9735	1978	Stranded, refloated and diverted to Guam for temporary repairs. Subsequently towed to Onishi for repairs. Returned to service. Cargo wheat.
<u>Guam</u>	07-Apr-1981	GP	P		
South of Guam		12°32.00'N	144°42.00'E		
<u>American Legion</u>	-	Ctr	19157	1968	Stranded, refloated with tug aid and entered port where temporary repairs effected. Sailed to Kaohsiung for permanent repairs. 80000 gallons of bunker fuel spilled after an oil tank and cargo hold were ruptured. Oil pollution.
<u>Guam</u>	13-Dec-1985	GP	P		
Entrance to Apra Harbour	13°27.00'N	144°37.00'E			
<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<u>Toros Bay</u>	-	CG	8931	1973	Stranded, refloated and taken to Apra, subsequently taken to Kaohsiung, sold, and broken up. Some extensive damage as vessel stern contacted reef during refloating.
<u>Guam</u>	22-Dec-1986	GP	P		
On reef		13°15.00'N	144°38.00'E		

<b><u>Kotobuki Maru No.1</u></b>	-	FV	253	1966	Stranded during typhoon 'Roy'
<b>Guam</b>	12-Jan-1988	GP	U		
Guam		13°28.00'N		144°32.00'E	
<b><u>Kaiyo Maru No.5</u></b>	JP	FV	0	0	Ran aground. Refloated same day.
<b>Guam</b>	28-Jan-1991	GP	M		
Apra Harbour		13°27.00'N		144°37.00'E	
<b><u>Glacier Bay</u></b>	US	Other	0	0	Tank barge. Damaged due to heavy contact with tug.
<b>Guam</b>	07-Jan-1992	C	P		
Vicinity of Guam		13°52.00'N		145°22.00'E	
<b><u>Jean Charcot</u></b>	PA	RV	0	0	Research vessel ran aground while conducting survey of ocean floor.
<b>Guam</b>	18-Mar-1992	GP	M		
Tumon Bay		13°30.00'N		144°47.00'E	
<b><u>Esso Tees</u></b>	SI	TIng	0	0	Explosion occurred while vessel discharging pressurised liquefied gas followed by a fire. Immediate action halted the fire. No injuries.
<b>Guam</b>	17-Aug-1992	F	P		
Apra Harbour		13°27.00'N		144°37.00'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Seaspan</u> Guam 90 miles NW of Guam	CA 31-Aug-1992	Brg U 14°34.00'N	0 U	0 143°40.00'E	Barge adrift.
<u>Francisca</u> Guam 15 miles NE of Guam	US 18-Nov-1992	Brg S 13°50.00'N	1075 T	0 145°11.00'E	Deck barge. Broke from tow of tug during typhoon "Hunt" and was lost at sea.
<u>Yasiu Maru</u> Guam Off Guam	- 09-Feb-1994	U H 11°30.00'N	0 T	0 142°55.00'E	Sank after crack developed in hull.
<u>Miya Maru No.88</u> Guam -	JP 17-Nov-1995	U M 14°07.00'N	349 M	1982 144°23.00'E	Took in water resulting in vessel disabled and drifting. Later towed to Guam.
<u>Anangel Might</u> Guam South west of Guam	04-Nov-1998	U M 11°09.20'N	0 M	0 139°15.40'E	Adrift due to engine failure. Later towed by US Navy vessel and then tug Chamorro to Guam
<u>Carolines</u> Guam Near Guam	PA 17-Jan-1999	Bulk S 13°38.00'N	0 T	0 145°24.00'E	Sank due to bad weather and rough seas. Cargo 6,000 tons of silica sand. Crew rescued safely.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Fokutoku Maru No.5</u></b> Guam 7 nmi S Guam	JP 30-May-2000	FV M 13°08.00'N	119 M	1984 144°42.00'E	Broke down, adrift 2 days. Tug "Chamorro" towed to Apra for repairs.
<b><u>1st Lt. Baldomero Lopez</u></b> Guam 520 nmi NW Guam	US 05-Aug-2002	RoRo F 15°12.00'N	32908 P	1985 145°42.00'E	Fire in engine room. Two crew injured. Vessel disabled. Tug Bei Hai 102 dispatched from Busan
<b><u>Hangil No.12</u></b> High Seas -	SK	FV U 12°45.00'N	0 T	0 157°35.00'W	Sank.
<b><u>Flag Mars</u></b> High Seas	MA 08-Apr-1992	CG M 14°41.00'N	0 M	0 157°08.00'E	Damaged rudder. Towed to Guam.
<b><u>Midas Ocean</u></b> High Seas -	HD 02-Jan-1995	Bulk H 01°50.00'N	0 T	0 158°50.00'E	Sank. On passage from Nauru to Inchon with phosphate when ingress of water caused vessel to sink. All crew safely recued.
<b><u>Sybarite</u></b> High Seas -	US 12-May-1995	U H 10°23.00'N	0 T	0 162°03.00'W	Vessel taking in water. Water pumped out and vessel continued on voyage Samoa for Honolulu. Crew later picked up when vessel in sinking condition 300 miles from Honolulu. Assumed vessel sank.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Ming Fong Sheing</u></b> <b>High Seas</b> -	TA 11-Apr-1997	FV F 15°50.00'N	0 T	0 133°40.00'E	Caught fire and sank. Nine crew rescued, three missing.
<b><u>Sapir</u></b> <b>High Seas</b> 400 nmi N Guam	PA 06-Mar-2000	Toil H 17°31.00'N	54980 M	1990 139°40.00'E	Leak in cargo tank discovered at sea by crew. Cargo redistributed and vessel continued to Honolulu for inspection.
<b><u>Ji Moon Chun</u></b> <b>High Seas</b> 648 nmi E Guam	TW 21-Aug-2001	FV F 13°32.00'N	0 T	0 155°33.00'E	Fire at sea. Vessel burned and sank. Crew rescued by helicopters from USN amphibious assault vessel "Boxer", 40,000 gt, returning from Arabian Gulf.
<b><u>Chiyo Maru No. 3</u></b> <b>High Seas</b> -	JP 13-May-2002	FV F 17°17.00'N	77 T	1978 151°05.99'E	Fire. Nine crew rescued by another FV. No further sightings, assumed sunk.
<b><u>Katsuura Maru No. 28</u></b> <b>High Seas</b> At Sea	JP 19-Jul-2002	FV H 15°30.00'N	164 T	1985 164°00.00'E	Sank in open water. Pumps unable to control leak, believed caused by grounding in Micronesia.
<b><u>Sea Hawk No.3</u></b> <b>Indonesia - West Papua</b>	SK 16-May-1991	FV C -	0 T	0 01°36.00'N 137°06.00'E	Sank after colliding with Reefer Jia Year No.66. All crew rescued.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Lara K.</u> Indonesia? north of Wetar Island	BA 24-Jul-1991	Bulk M 07°38.00'S	0 U	0 127°10.00'E	Lost power.
<u>Kwang Myung No.62</u> Kiribati Tamana island	- 25-Mar-1980	FV GP 02°30.00'S	352 T	1968 175°59.00'E	Wrecked. Crew rescued.
<u>Nam Chang</u> Kiribati Off Starbuck Island	- 23-Feb-1982	FV GP 05°35.00'S	227 T	1971 155°35.00'W	Wrecked. Crew rescued
<u>Young Kwang No.5</u> Kiribati Reef	- 17-Nov-1982	FV GP 01°47.00'N	243 T	1964 157°26.00'W	Struck reef, refloated but sank off Christmas Island at 01 41 05N, 156 40 05 W on 22 Nov 82.. All crew rescued. Sank due to severe leakage of seawater through fractured holes of bottom and one oil tank area.
<u>Fentress</u> Kiribati Off Christmas Island	- 03-Nov-1983	CG GP 02°05.00'N	3805 M	1945 157°35.00'W	Stranded while on loaded voyage from Honolulu to Fanning Island. Refloated and resumed voyage.
<u>Evelyn da Rosa</u> Kiribati -	- 03-May-1993	FV GP 02°14.00'N	966 T	1974 171°10.00'E	Struck submerged object and subsequently foundered. 18 persons rescued.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Aito</u> Kiribati Caroline Atoll	PF 20-Nov-1994	Tug GP 10°00.00'S	0 T	1962 150°15.00'W	Tug grounded on reef while attempting to tow yacht Oracle. Considered a total loss.
<u>Vostochnyy Bereg</u> Kiribati Tarawa Atoll	RU 31-Dec-1994	Rfr GP 01°34.00'N	7856 M	1981 172°56.00'E	Grounded. No damage occurred.
<u>Maasmond</u> Kiribati Approx 415 nautical (500 miles) east of Tarawa	- 07-Jan-1997	FC F 01°35.00'N	1055 U	1971 179°59.00'E	Drifting without power after fire in engine-room. En route Tarawa to Christmas Island.
<u>Marshall Islands</u> Marshall Islands Off Jemo Island	- 16-Dec-1979	CG GP 10°05.00'N	798 T	1976 169°34.00'E	Wrecked. Salvage attempts unsuccessful. Constructive total loss.
<u>Tong Wha No.101</u> Marshall Islands Off Kwajalein Atoll	- 13-Jun-1983	FV GP 08°48.00'N	215 T	1965 167°48.00'E	Wrecked.
<u>Seifuku Maru No.1</u> Marshall Islands -	- 16-Jan-1994	FV GP 07°06.00'N	119 T	1985 171°07.00'E	Struck a rock and sank.



<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Victor Eoaeo</u> Nauru Reef off Nauru	- 29-Jan-1986	FV GD 00°20.00'S	948 T	1977 167°10.00'E	Struck reef and sank after moorings parted in heavy weather. 9 crew members rescued.
<u>Purau</u> New Caledonia On coral reef	- 07-Aug-1986	Tug GP 19°21.00'S	247 P	1986 163°12.00'E	Stranded. Refloated by own power and taken to Poume. Towed to Noumea for temporary repairs and thence Tonagasaki for permanent repairs. Vessel was on delivery voyage.
<u>Konemu</u> New Caledonia Reef of Porc Epic, an island 10 miles from Noumea	NC 24-Jan-1997	Toil GP 22°01.00'S	755 P	1990 165°52.00'E	Grounded. Refloated with tug assistance. Leakage of light petrol into lagoon.
<u>Contship France</u> New Caledonia -	- 14-Feb-1997	Ctr S 21°15.91'S	16236 M	1993 169°10.57'E	Minor damage and partial loss of contents of two containers overboard during bad weather. Vessel en route from Noumea to New York.
<u>Mary D. Princess</u> New Caledonia Off Noumea	NC 02-Aug-1997	FP GP 22°04.00'S	0 P	0 166°00.00'E	Grounded. Damaged, repaired, and resumed normal service.

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<u>Nisshin Maru</u>	JP	RV	7569	1987	Research vessel/fish factory caught fire and drifting without power. No injuries. Later towed to New Caledonia for repairs.
<u>New Caledonia</u> 400 nautical miles off east coast of Australia	20-Nov-1998	F	P	159°54.00'E	
<u>Padang Hawk</u>	SI	Bulk	27011	1995	Encountered rough seas en route New Caledoni to Townsville and developed a 15 degree list, attributed to liquefaction of nickel ore cargo.essel arrived safely in Townsville.
<u>New Caledonia</u> -	10-Jul-1999	S	M	158°20.00'E	
<u>Seefalk</u>	-	Toil	639	1962	Sank at anchor.
<u>New Caledonia</u> Anchored at Noumea	16-Nov-1999	U	T	166°26.00'E	
<u>Komenu</u>	NC	Toil	0	0	Collided with bulk carrier Arctic Trader (14,922 gt, built 1985) in Noumea Harbour. Damage minor. Reportedly the master of Komenu was drunk.
<u>New Caledonia</u> Noumea Harbour	14-Jan-2000	C	M	166°26.00'E	
<u>Lucifero</u>	-	Other	0	0	Two crew rescued from sinking yacht.
<u>Niue</u> 200 km east of Niue	25-May-1999	U	T	168°00.00'W	

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<b><u>Fentress</u></b>	-	CG 3805 1945	Stranded during typhoon 'Hazen'.	1945	Refloated with
<b>Northern</b>	15-Nov-1981	GP	P		assistance after lightening, arrived in Osaka for repairs and then resumed trading.
Saipan Island		15°18.00'N	145°42.00'E		
<b><u>Nam Sung No.62</u></b>	-	FV	287	1962	Wrecked due to failure of gyrocompass and radar in heavy weather. Vessel left as lies due to heavy damage
<b>Northern</b>	20-Jul-1982	GP	T		
sustained					
Rota Island		14°10.00'N	145°09.00'E		
<b><u>Sun Long No.8</u></b>	-	Rfr	3662	1968	Stranded while entering harbour. A hold and engine room flooded.
<b>Northern</b>	23-Aug-1986	GP	P		
Entrance to Tinian Harbour		14°57.00'N	145°34.00'E		
<b><u>Petro Service</u></b>	-	Sp	573	1968	Stranded during typhoon 'Kim'. Vessel a supply ship (O.R.S.V)
<b>Northern</b>	03-Dec-1986	GP	U		
On reef off Saipan Island		15°15.00'N	145°44.00'E		
<b><u>Isla Grande</u></b>	-	Toil	2915	1979	Touched bottom whilst manouvering at Saipan Island. Sailed for China. Sustained propeller damage,
<b>Northern</b>	17-Mar-1990	GP	M		
Saipan Island		15°14.00'N	145°42.00'E		
<b><u>Belait Kingfisher</u></b>	-	LC	253	1974	Stranded, refloated with tug assistance, towed to Guam after temporary repair. Towed to Cebu for repairs to hull bottom, tailshaft, propellor, and both rudders.
<b>Northern</b>	15-Sep-1990	GP	P		
Rota Island		14°06.00'N	145°12.00'E		

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Tumon 2</u></b> Northern 14 miles NE of Saipan	MH 06-Oct-1991	CG GP 15°30.00'N	194 T	1970 146°00.00'E	Grounded. Subsequently broke in two and sank during typhoon 'Seth'.
<b><u>Manila Harmony</u></b> Northern Between Saipan and Tinian Islands	- 04-Nov-1991	U S 15°06.00'N	0 P	0 145°42.00'E	Shifted at sea while sheltering from typhoon 'Seth' resulting in flooding of hold.
<b><u>Maria</u></b> Northern Off Rota Island	- 20-Feb-1996	CG U 14°11.00'N	80 U	0 145°13.00'E	na
<b><u>Guernsey Express</u></b> Northern -	PH 09-Nov-1996	Other S 13°02.00'N	4255 T	1967 144°01.00'E	Livestock carrier (cattle) sank due to bad weather. Crew rescued safely.
<b><u>Fidel Jr.</u></b> Northern Saipan Dock	BE 25-Apr-1997	U O 15°16.00'N	192 P	1961 145°44.00'E	Sunk due to leaks in starboard tanks while loading containerised cargo. Containers were recovered but severley damaged. Fuel to be removed.
<b><u>Shogun</u></b> Northern Rota Island	PA 05-Nov-1997	Tchem GP 14°09.00'N	717 P	1977 145°08.00'E	Grounded in bad weather. Minor diesel spillage. Efforts to refloat hampered by typhoon 'Keith'. Cargo offloaded before refloated. Proceeded to Rota and thence to Phillipines for repairs.

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<b><u>China Progress</u></b>		PA	Bulk0	0	Vessel with cargo of copper concentrate, Chile for Japan, sustained hull damage in heavy weather. Flooding in No. 1 hold and ballast tank. Vessel proceeded Guam under tug escort for temporary repairs, thence departed for Qindao 25 Feb.
<b>Northern</b>	18-Feb-2000	H	P		
North of Northern Marianas Islands		17°23.00'N	147°56.00'E		
<b><u>China Progress</u></b>		PA	Bulk	0	Vessel took in water due to hull damage sustained in heavy storms. Proceeded to Guam under escort from Japanese salvage tug. Cargo copper concentrate.
<b>Northern</b>	18-Feb-2000	S	M	0	
-		17°23.00'N	147°56.00'E		
<b><u>Greenville III</u></b>		US	Other	0	Submarine brushed bottom in rough seas on approach to Saipan Harbour. Minor repairs effected Apra Harbour. Greenville was the sub in collision with Japanese training vessel "Ehime Maru" off Diamond Head 9 Feb 01
<b>Northern</b>	27-Aug-2001	GP	M	0	
Entrance Saipan Harbour		15°12.00'N	145°42.00'E		
<b><u>Bovenhusen</u></b>		CY	U	3186	Engine breakdown, adrift. Tug dispatched with engineer and parts 4 July .
<b>NZ?</b>	02-Jul-2001	M	M	1990	
-		33°30.60'S	171°02.50'E		
<b><u>Bowoon No.7</u></b>		-	Toil	3084	Stranded. Refloated after jettisoning part cargo and anchored in Koror, Palau. Oil pollution.
<b>Palau</b>	22-Apr-1980	GP	P	1969	
-		07°14.85'N	134°28.65'E		

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Bluefin Endeavour</u></b> Palau Helen Reef	- 05-Jun-1992	FV GP 02°55.00'N	1010 T	1977 131°48.00'E	Struck reef (north of PNG) and sank.
<b><u>Blue Diamond</u></b> Palau Vicinity of Helen Reef	- 28-Aug-1992	U O 02°55.00'N	0 T	0 131°48.00'E	Sank.
<b><u>Golden Eagle</u></b> Palau Off Palau	LI 05-Apr-1998	Toil GP 08°30.00'N	36865 M	1982 134°45.00'E	Grounded. Proceeded to Balboa for repairs
<b><u>Pacific Falcon</u></b> Palau -	PA 21-May-2000	Ctr GP 07°22.12'N	8132 M	1998 134°22.46'E	Grounded while on passage from Australia to Japan, carrying 7142 tonnes of containers and copper. Refloated by partial unloading and assist from tug Koyo Maru. Anchored and inspected Palau. No immediate repairs required.amage.
<b><u>Partner</u></b> PNG -	CY	U GP	0 M	0	Grounded. Refloated and proceeded to Rabaul.

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<u>Maluka</u>	-	CG	584	1950	Vessel stranded on reef in hazy conditions. In two rescue attempts 'Sepik Energy' and 'Hebe' both stranded on same reef and considered total losses. Maluka refloated, anchored at Salamaua Bay, sold and broken up.
<u>PNG</u>	01-Jun-1977	GP	T		
Ragave Point, Cape Vogel		09°41.00'S		150°03.40'E	
<u>Hebe</u>	-	CG	296	1946	Stranded while attempting to refloat stranded 'Maluka'. Subsequently refloated, towed to Samarai and scuttled off Salamaua.
<u>PNG</u>	06-Jun-1977	GP	T		
Ragave Point, Cape Vogel		09°41.08'S		150°03.40'E	
<u>Carla Manus</u>	-	LC	174	1970	Stranded. Refloated and resumed service. Damage presumed minor
<u>PNG</u>	09-Mar-1979	GP	M		
Reef near Willaumez Penninsular, New Britain		05°05.00'S		149°58.00'E	
<u>Rudolph Wahlen</u>	-	CG	115	1964	Wrecked. Weather good at time of casualty. Abandoned after attempts to refloat failed. Some cargo saved
<u>PNG</u>	27-Jun-1979	GP	U		
Circular Reef		03°26.00'S		147°47.00'E	
<u>Idun</u>	-	CG	300	1971	Grounded. Refloated under own power.
<u>PNG</u>	02-Aug-1979	GP	M		
Dove Island		09°59.00'S		143°08.00'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Ambusa</u></b> PNG Cape Gloucester, New Britain	- 02-Aug-1979	LC GP 05°24.00'S	180 M	1972 148°25.00'E	Stranded. Refloated& continued on voyage.
<b><u>Chiang Wei</u></b> PNG Kalili Harbour, New Ireland	- 01-Jan-1980	CG GP 03°26.72'S	3981 P	1979 151°55.00'E	Stranded. Refloated with assistance after cargo jettisoned & continued service. Probable cause strong current.
<b><u>Dai Wang No. 105</u></b> PNG Coral Island	- 15-Jan-1980	FV GP 02°28.00'S	299 M	1964 149°57.00'E	Stranded in poor visibility. Refloated by tug and towed to Rabaul.
<b><u>Waigani Express</u></b> PNG Off Hood Point	- 04-Jul-1981	CG GP 10°09.00'S	5084 P	1971 147°43.00'E	Stranded. Refloated and towed to Port Moresby thence Singapore where sold, renamed 'Papua' and returned to service. Damage to port forward and starboard.
<b><u>Seiha Maru</u></b> PNG Reef off Rabaul, New Britain	- 08-Nov-1982	Tug GD 04°12.80'S	1033 P	1969 152°30.00'E	Tug. Stranded after tow wire fouled propellor whilst towing 'Hinode Maru No.8'. Refloated,towed to Sakoshi, sold, broken up.
<b><u>Manhattan Duke</u></b> PNG Basilisk Reef	- 16-Jul-1983	Toil GP 09°33.00'S	39349 P	1976 147°08.00'E	Stranded in heavy weather, whilst awaiting pilot. Refloated with tug assistance. Towed to Singapore for repairs. Extensively damaged. Oil pollution.



<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<b><u>Cosmaris</u></b>	-	RoRo	340	1978	Stranded during heavy weather. Refloated with tug assistance and redelivered to owners at Rabaul. Minor damage.
<b><u>PNG</u></b> Coral Reef off Tingwon Group	27-Nov-1983	GP 02°37.00'S	M	149°39.00'E	
<b><u>Longan</u></b>	-	CG	4660	1977	Stranded . Refloated with own power but assisted by tug. Minor damage
<b><u>PNG</u></b> 30 miles south of Kieta, Bouganville Island	27-Mar-1984	GP 06°33.00'S	M	156°00.00'E	
<b><u>Tangir</u></b>	-	LC	170	1971	Stranded. Capsized and sank after cargo shifted and attempts to refloat. .
<b><u>PNG</u></b> Reef off Port Moresby	17-Jan-1985	GD 09°32.00'S	T	147°07.00'E	
<b><u>Moale Chief</u></b>	-	LC	262	1981	Stranded. Taken to slipway at Port Moresby, repaired and returned to service. Mechanical damage
<b><u>PNG</u></b> Reef at Gadaisu Point, Orangerie Bay	28-Feb-1985	GP 10°35.00'S	P	149°37.00'E	
<b><u>Bow's Brother</u></b>	-	CG	4719	1977	Stranded after dragging anchor in heavy weather, refloated with tug aid, towed to Rabaul thence Kobe where repairs effected, returned to service. Mechanical damage.
<b><u>PNG</u></b> Between Rabaul and New Ireland	23-Jun-1985	GD 04°04.00'S	P	152°26.00'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Ok Tarim</u> PNG Off Port Moresby	- 19-Aug-1985	Tug GP 09°32.00'S	126 P	1982 147°07.00'E	Stranded when main towing line became entangled in port propeller. Taken to port where surveyed and repaired and returned to service. Slight damage.
<u>Bright Ace</u> PNG 33 miles NE of Cape Nelson	- 11-Oct-1986	RoRo GP 08°35.00'S	7666 P	1978 149°40.00'E	Stranded. Refloated and taken to Port Moresby, then to Ulsan and Japan. Repaired and returned to service. Sustained mechanical damage.
<u>Smilax</u> PNG -	- 03-Jan-1987	CG GP 08°47.00'S	3810 M	1982 150°11.00'E	Stranded. Refloated and proceeded to Tufi Anchorage for inspection. Returned to service. Minor damage.
<u>Witbridge</u> PNG 20 miles east of Cape Ward Hunt	- 02-Mar-1987	LC GP 08°00.00'S	718 P	1977 148°30.00'E	Stranded. Refloated and towed to Cairns for repairs then returned to New Britain. Mechanical damage.
<u>Huris</u> PNG Lihir Island	- 05-Oct-1987	LC GP 03°06.00'S	354 M	1977 152°39.00'E	Stranded whilst unloading in heavy swell. Refloated with tug assistance and towed to Rabaul. Minor damage.
<u>Sun Island</u> PNG Off Woodland Island	- 09-Mar-1989	CG GP 09°09.78'S	3931 M	1974 152°24.25'E	Stranded. Refloated without assistance and towed to Port Moresby for temporary repairs. Minor damage

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Kim Lien</u>	-	CG	6020	1977	Stranded after sustaining engine failure. Refloated with tug assistance and towed to Port Moresby.
<b>PNG</b> Reef 2 miles off Port Moresby Harbour entrance	18-Jul-1990	GD 09°32.00'S	P	147°07.00'E	
<u>Glomaris</u>	-	LC	371	1981	Stranded. Capsized and sank. Subsequently raised and repaired. Vessel holed.
<b>PNG</b> Off Jacquinet Bar, New Britain	26-Jul-1990	GP 05°40.00'S	P	151°36.00'E	
<u>Steel Rover</u>	PG	Other	0	0	Logging barge. Reported drifting without anyone on board.
<b>PNG</b> south west of Bouganville Island	15-Mar-1991	U 07°50.00'S	U	154°00.00'E	
<u>Simbang</u>	PG	FC	0	0	Sank after being hit by a freak wave which drove it onto a reef before capsizing. 9 people died and 24 missing.
<b>PNG</b> Vitiaz Strait, near Port Sialum, northern PNG	04-Sep-1991	GP 05°50.00'S	T	147°32.00'E	
<u>AdhigunaNugraha 1</u>	IN	CG	4928	1980	Stranded in heavy weather. Refloated with tug assistance and towed to Rabaul then Singapore for repairs. Minor damage. Log carrier
<b>PNG</b> Reef near Cape Sena, New Ireland	06-Sep-1991	GP 02°19.32'S	M	150°51.10'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Costa de Marfil</u> PNG -	SK 09-Oct-1991	U C 05°34.00'S	807 M	0 156°01.00'E	Collided with Atlantis (1,427 tons).
<u>Shilla Pioneer</u> PNG -	SK 21-Nov-1991	FV C 02°30.00'N	0 P	0 145°30.00'E	Collided with Fung Kuo No.736. Hull sustained damages.
<u>Paradise Ocean</u> PNG -	PA 20-Feb-1992	Bulk GP 10°21.33'S	0 M	0 151°01.58'E	Grounded. Refloated under own power.
<u>Chemlong</u> PNG 100 miles north of Manus Island	KO 24-Mar-1992	FV O 00°14.00'S	0 T	0 146°54.00'E	Sank
<u>Sheng Fu No.16</u> PNG -	- 06-May-1992	FV GD 09°49.00'S	311 T	1972 142°12.00'E	Wrecked after sustaining steering failure.
<u>Hand Cheong</u> PNG Reef on approach to Karu Bay, New Ireland	PA 07-May-1992	CG GP 03°27.60'S	5030 P	1978 152°13.70'E	Stranded in strong wind and current. Refloated and towed to Rabaul for repairs. Cargo logs.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Ayu Permata</u> PNG Reef at Karu, New Ireland	IN 07-May-1992	U GP 03°52.65'S	5030 P	1978 153°08.10'E	Grounded. Holed. Subsequently towed to Rabaul for temporary repairs
<u>Madang Coast</u> PNG -	PG 07-Nov-1992	U F	0 P	0	Engine room fire while on voyage from Lae to Oro Bay. Fire extinguished and vessel returned to Lae. Extensive damage. NO injuries.
<u>Carlina</u> PNG Natera Reef, on approach to Basilisk Passage	PA 30-Nov-1992	CG GP 09°33.00'S	0 M	0 147°07.70'E	Stranded. Refloated by tug. Minor damage.
<u>Arktis Ocean</u> PNG River Fly	- 04-Mar-1993	CG GD 08°25.00'S	1598 P	1987 143°10.00'E	Touched bottom after log caught in propeller. Cargo copper concentrate.
<u>Pixy May</u> PNG	PA 22-Mar-1993	CG GP 06°19.00'S	2820 M	1986 149°52.00'E	Stranded. Refloated and towed to Rabaul for repairs. Vessel sailed for Japan.
<u>Olympus Kim</u> PNG -	SK 06-Apr-1993	U C 00°22.00'S	0 P	0 151°30.00'E	Collided with Reina No.101. Structural damage.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Armstrong</u> PNG Port Aumo, West New Britain	PA 13-Aug-1993	CG GP 06°58.00'S	6719 P	1970 148°36.00'E	Ran aground while entering port. Arrived Rabaul with salvor assistance. Subsequently sailed to Aland and broken up. Hull bottom holed. Cargo logs.
<u>Kris</u> PNG near Samuda Island, West New Britain	PG 19-Aug-1993	RoRo U 05°24.00'S	420 T	1972 149°01.00'E	Capsized and sunk. Two passengers and a crewman died.
<u>Tenyu Maru</u> PNG Entrance of Port Wasum, SE coast New Britain Is.	JP 17-Oct-1993	U GP 06°19.06'S	3703 U	0 149°51.14'E	Ran aground while entering port.
<u>Tropic Wind</u> PNG -	- 11-Nov-1993	CG S 25°58.00'N	0 T	0 131°32.00'E	Sank in heavy weather and rough seas caused by Cyclone "Jeana"
<u>Kwang II No.3</u> PNG Gulf of Papua, 185 km NW of Port Moresby	SK 01-Mar-1994	FV U 08°40.00'S	286 T	1963 145°35.00'E	Sank. Crew abandoned sinking vessel and were safely rescued.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Samsun Brave</u>	-	FV	1247	1983	Grounded. Subsequently slipped off reef, capsized, and sank. Crew rescued. 10 islanders that boarded the vessel to remove goods died when vessel capsized and sank.
<b>PNG</b> Reef off Carteret Island, North Solomon Islands	06-Mar-1994	GP 04°42.00'S	T	155°26.00'E	
<u>Papuan Chief</u>	HK	Ctr	7914	1991	Grounded. Refloated with assistance and proceeded to Alotau for inspection. Sailed to Singapore for repairs.
<b>PNG</b> East Island, Bonvouloir Islands	25-Jun-1994	GP 10°23.00'S	M	152°07.00'E	
<u>Dasa Sebelas</u>	PA	U	0	0	Ran aground. Towed by tug to Port Moresby.
<b>PNG</b> Star reef area	13-Oct-1994	GP 08°29.00'S	P	149°35.00'E	
<u>Ocean Yuri</u>	PA	CG	0	0	Grounded. Refloated and towed to Madang for repairs. Cargo logs.
<b>PNG</b> Off south coast of New Britain	07-Jan-1995	GP 06°24.00'S	P	149°38.00'E	
<u>Shoei No.2</u>	PA	CG	3007	1982	Grounded. Refloated.
<b>PNG</b> Off New Britain	24-May-1995	GP 06°05.00'S	M	148°34.00'E	
<u>Grand Fortune</u>	PA	CG	7913	1976	Ran aground. Refloated with assistance and proceeded to Lae for repairs. Forepeak holed.
<b>PNG</b> On reef	25-Sep-1995	GP 06°18.00'S	P	149°50.90'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Armada Kasturi</u>	ML	CG	6784	1975	Grounded. Cargo logs.
<u>PNG</u> Reef off Sauren, off West New Britain	16-Oct-1995	GP 04°34.10'S	U	168°17.39'E	
<u>Pera</u>	-	LC	310	1969	Sank in bad weather due to Cyclone 'Justin'. 6 of 8 crew rescued.
<u>PNG</u> S tip of New Ireland Prov., SE of Cape St George	09-Mar-1997	S 05°00.00'S	T	153°02.00'E	
<u>Orange Wave</u>	SI	Other	7551	1983	Engine breakdown. Towed to Madang Harbour by ferry. Vehicle carrier.
<u>PNG</u> -	14-Aug-1997	M 05°10.00'S	P	146°00.00'E	
<u>Elfreide</u>	PG	FV	0	0	Grounded. Crew rescued safely. Attempts to refloat abandoned.
<u>PNG</u> Reef near Basilisk Passage	07-Oct-1998	GP 09°32.27'S	T	147°08.07'E	
<u>Star Sun</u>	-	CG	6399	1975	Sank. Initially ran aground on reef at Wasum Bay, West New Britain. Pulled off and towed to Rabaul when sank. Crew rescued.
<u>PNG</u> Jacquinot Bay, East New Britain	09-Dec-1998	GP 05°42.80'S	T	151°46.00'E	



<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Bao Ji Shan</u> PNG Reef outside entrance to Port Moresby	PA 21-May-2000	CG GP 09°32.00'S	0 M	0 147°06.00'E	Grounded. Cargo logs
<u>Gazelle Coast</u> PNG Isulailai Point	HK 14-Jun-2000	U GP 10°33.60'S	4292 U	1984 150°42.40'E	Aground.
<u>Ligaya</u> PNG -	HN 08-Aug-2000	CG M 10°46.00'S	4339 M	1982 141°32.00'E	Mechanical breakdown forced vessel to anchor after leaving Port Moresby for Kaohsiung. Towed to Port Moresby, repaired and continued voyage.
<u>Anax</u> PNG At Sea	MT 14-Aug-2000	Bulk M 10°20.00'S	18392 M	1979 157°10.00'E	Dissabled by engine problem. Carrying (ore?) concentrate and fish meal for Thailand. Towed to Port Moresby
<u>Coral Trader</u> PNG -	BS 25-Jan-2002	RoRo GP 10°14.33'S	4887 P	1978 150°56.27'E	Grounded, with punctured forward double bottom. Ballast tanks. Freed with tug assistance, repaired and resumed service.
<u>Irina 2</u> PNG Oro Bay	MT 29-Jul-2002	Toil GP 08°53.00'S	15063 U	1983 148°29.00'E	Tug from Smit Salvage dispatched to aid crude oil tanker aground. Outcome unknown.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Kimbe Queen</u> PNG Kimbe	PG 01-Oct-2002	FP GP 05°33.00'S	156 M	1989 150°09.00'E	Vessel grounded on leaving Kimbe on regular route to Rabaul. 180 passengers transferred to Rabaul Queen. Vessel refloated 4 days later, returned directly to service. Grounding attributed to lack of nav aids.
<u>Polynesia</u> Samoa East Reef, Off Apia, Upolu Island	- 09-Sep-1988	Ctr GP 13°48.70'S	10774 M	1979 171°45.20'W	Stranded, refloated without assistance, returned to Apia, sailed for Long Beach, CA for temporary repairs. Resumed service. Damage confined to an area approx. 2.5 m in length in way of bulbous bow.
<u>Queen Salamasina</u> Samoa Apia	- 03-Feb-1990	FC GP 13°48.00'S	714 P	1977 171°45.00'W	Stranded during Cyclone Ofa. Refloated and towed to Nelson. Repaired and vessel returned to Samoa.
<u>Jin Shiang Fa</u> Samoa Reef at Rose Island	TA 14-Oct-1993	FV GP 14°33.00'S	363 T	1985 168°09.00'W	Struck reef near island which is a bird sanctuary. Created diesel spill. Removed and sunk in deep water.
<u>Agnui 1</u> Samoa 160km (86 nmi) west of Savai'i	SB 07-Oct-2001	FV M 13°27.00'S	0 M	0 174°18.00'E	Mechanical breakdown, drifted 10 days before being located by Orion aircraft from (??). Six crew well, rendezvous and presumed towed by sister vessel Agnui II.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Greenville III</u> Seychelles? -	SI 05-Nov-1993	Tug M 02°06.00'N	0 U	0 073°05.00'E	Tug with barge in tow disabled and adrift.
<u>Pacific Trader</u> Solomon Islands Viru Harbour	- 23-Mar-1979	Toil GP 08°32.00'S	970 M	1972 157°44.00'E	Stranded. Refloated without assistance and proceeded to Honiara for survey. Tanker?
<u>Pacific Voyager</u> Solomon Islands Gizo Harbour	- 20-Jun-1979	Toil GP 08°06.00'S	674 P	1970 156°51.00'E	Stranded. Refloated with tug assistance and repaired at Rabaul. Mechanical damage.
<u>Yu Hsing</u> Solomon Islands -	- 02-Jul-1979	FV GP 05°08.00'S	0 P	0 159°09.00'E	Stranded. Refloated and taken to Honiara for repairs. Mechanical damage.
<u>Solomon Fisher</u> Solomon Islands Reef at Tulagi	- 16-Sep-1979	FV GP 09°06.00'S	121 P	1979 160°09.00'E	Stranded. Refloated and repaired.
<u>Tenryu Maru No.22</u> Solomon Islands Soloman Sea	- 11-Mar-1980	FV GP 08°00.00'S	194 T	1969 154°40.00'E	Stranded. Declared a constructive total loss.

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<b><u>Soltai No.6</u></b>	-	FV	103	0	Stranded. Refloated with assistance and towed to Tulagi. Minor mechanical damage.
<b>Solomon Islands</b> Off Munda lighthouse, New Georgia Island	08-Aug-1980	GP	M	157°13.00'E	
<b><u>Iu-Mi-Nao</u></b>	-	FC	518	1965	Stranded on reef. Refloated, repaired and returned to service. Slight damage.
<b>Solomon Islands</b> Reef	13-Aug-1980	GP	M	159°10.00'E	
<b><u>Mikolaj Rej</u></b>	-	CG	9397	1969	Listed after stranding. Discharged cargo and refloated. Pilot error was cause.
<b>Solomon Islands</b> Honiara Harbour	16-Aug-1983	GP	P	159°58.00'E	
<b><u>Hanlim Master</u></b>	-	Bulk	9808	1969	Stranded whilst manoeuvring close to shore to load logs. Oil tank ruptured causing oil pollution . Refloated
<b>Solomon Islands</b> Beach 3 miles west of Taware Point, San Cristobal	15-Feb-1984	GP	P	161°46.50'E	
<b><u>Ann</u></b>	-	CG	262	1958	Stranded in heavy weather. Refloated with no damage. 1 crew missing.
<b>Solomon Islands</b> 1 mile E. of Point Cruz, Honiara	03-Mar-1985	GP	M	159°56.00'E	

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<u>Soloman Princess</u>	-	FP	121	1969	Wrecked in heavy weather
<b>Solomon Islands</b>	03-Mar-1985	GP	T		
On rocks approx. 1 mile E. of Point Cruz, Honiara		09°25.00'S		159°56.00'E	
<u>Regina M</u>	-	CG	500	1956	Stranded after dragging anchors during cyclone Namu.
<b>Solomon Islands</b>	19-May-1986	GD	U		Broken up in situ.
Honiara		09°25.00'S		159°57.00'E	
<u>Island Trader</u>	-	CG	199	1969	Stranded. Refloated and taken to shipyard for repairs.
<b>Solomon Islands</b>	20-Jan-1988	GP	P		
Rua Ndika Reef		08°43.00'S		159°56.00'E	
<u>Camphor</u>	LI	U	0	0	Grounded. Refloated.
<b>Solomon Islands</b>	19-Aug-1990	GP	M		
River Enoghae		08°10.00'S		157°18.00'E	
<u>Larix</u>	PA	CG	3810	1981	Touched bottom whilst entering Bay. Towed to Honiara.
<b>Solomon Islands</b>	17-Apr-1991	GP	M		Minor mechanical damage.
Aruraha Bay, Makira Island, San Cristobal		10°26.00'S		161°27.00'E	

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Soltai No. 25</u></b> Solomon Islands -	SI 04-Jul-1991	FV S 08°27.00'S	64 T	1969 156°39.00'E	Sank due to rough seas and strong winds whilst on journey from fishing ground to Gizo. 6 crew still missing.
<b><u>Island Trader</u></b> Solomon Islands Ranadi Beach	SI 17-Feb-1992	CG GP 09°25.00'S	199 T	1969 159°57.00'E	Stranded during cyclone Daman. Refloated and berthed at Honiara. Scuttled.
<b><u>Liapari</u></b> Solomon Islands Ranadi Beach, Honiara	SI 17-Feb-1992	U GP 09°25.00'S	55 P	1984 159°57.00'E	Grounded during sudden squall. Severly damaged.
<b><u>Harmonica</u></b> Solomon Islands Point Cruz	- 17-Feb-1992	Other GP	0 M	0	Yacht. Grounded. Later refloated.
<b><u>Princess II</u></b> Solomon Islands Florida Islands	SI 27-Jul-1992	FP GD 09°09.00'S	133 T	1963 160°23.00'E	Sustained engine trouble and stranded. Subsequently sank. All passengers and crew rescued.
<b><u>Tropical Damsel</u></b> Solomon Islands Wilson Harbour	PA 13-Oct-1992	CG GP 07°49.00'S	5451 M	1985 157°18.00'E	Touched bottom. Towed to Noro for temporary repairs. Rudder damaged.

<u>Vessel Name</u>	Flag	Type	GRT	Year Built	Comments
Country of Incident	Date of Incident	Type Incident	Severity		
Location Name		Latitude		Longitude	
<b><u>New Asia</u></b>	TA	CG	0	0	Ran aground in bad weather caused by cyclone "Nina".
<b>Solomon Islands</b>	01-Jan-1993	GP	U		
Kalena Bay entrance, New Georgia		08°21.40'S		157°38.80'E	
<b><u>Solomon Catcher</u></b>	-	Bulk	27	1984	Sank after taking in water. Crew rescued.
<b>Solomon Islands</b>	14-Feb-1993	U	T		
-		08°33.00'S		158°47.00'E	
<b><u>Pelawan</u></b>	-	CG	4815	1975	Struck reef whilst manoeuvring and sustained damage to rudder and propeller. Towed to Noro.
<b>Solomon Islands</b>	21-Apr-1993	GP	P		
Sumberged reef at Keneko		08°28.00'S		157°16.00'E	
<b><u>Qena</u></b>	EG	Bulk	0	0	Taking in water
<b>Solomon Islands</b>	23-Dec-1993	H	U		
Near Solomon Islands		13°27.00'S		161°51.00'E	
<b><u>Kinabalu Limabelas</u></b>	ML	CG	4685	1977	Grounded. Efforts to remove vessel have failed.
<b>Solomon Islands</b>	15-Mar-1994	GP	T		
Entering Kenelo, western Solomon Islands		07°53.73'S		157°56.12'E	
<b><u>World Discoverer</u></b>	LI	CL	3724	1974	Beached after hit uncharted reef. No injuries reported.
<b>Solomon Islands</b>	30-Apr-2000	GP	T		
Sandfly Passage		09°01.00'S		160°07.00'E	

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>		<u>Longitude</u>	
<u>Sea Star</u>	GE	CG	6601	1977	Log vessel grounded on reef, still aground 22 dec 02.
<u>Solomon Islands</u> Reef outside Munda, Western Solomons	16-Dec-2000	GP 08°22.89'S	U	157°13.81'E	
<u>Anyamanii</u>	-	CG	4581	1973	Piracy. Vessel boarded and crew robbed by 10 armed men, four with guns. Proceeded to Malaita for cargo of logs.
<u>Solomon Islands</u> Honiara	04-Mar-2002	O 09°25.00'S	M	159°57.00'E	
<u>Hua Di</u>	MT	CG	10932	1977	Developed steering gear problems, grounded. Cargo approximately 7000 cubic meters logs. Vessel refloated without assistance, anchored. Tug Hua Ji dispatched from China to tow Hua Di to Shanghai for repairs.
<u>Solomon Islands</u> -	03-Oct-2002	G 08°47.30'S	P	157°55.70'E	
<u>Tai Yang No.103</u>	.	FV	133	1967	na
<u>Tokelau</u> Reef on S.W. side of Atafu Island	19-Feb-1978	U 08°34.00'S	U	172°28.30'W	
<u>Nam Hae No.217</u>	-	FV	159	1965	Stranded in poor visibility
<u>Tokelau</u> Off Atafu Island	09-Apr-1978	GP 08°31.00'S	U	172°30.00'W	



<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<b><u>Sunlight No.22</u></b> Tokelau Nukunono	- 20-Jun-1979	FV GP 09°10.00'S	291 P	1963 171°50.00'W	Stranded. Refloated and towed to Suva. Repaired and returned to service. Moderate damages
<b><u>Ai Sokula</u></b> Tokelau Reef off Fakaofu Atoll	- 26-Feb-1981	CG GP 09°19.55'S	400 T	1961 171°12.90'W	Wrecked. Salvage attempts abandoned due to low value of vessel and damage to hull. Cargo plundered by islanders.
<b><u>Young Kwang No.3</u></b> Tonga Coral Reef	- 23-Feb-1987	FV GP 15°57.00'S	184 T	1965 173°43.00'W	Wrecked
<b><u>Golden Glow</u></b> Tonga 200 miles south of Tonga	US 03-Feb-1998	U F 21°59.56'S	959 T	1967 175°00.85'W	Fire started on board forcing crew to abandon ship. Crew later rescued. Position reports conflict; 175o00.00'E probably in error, corrected to W.
<b><u>Paragon 3259</u></b> Tonga At Sea	NZ 27-May-2002	FV M 20°02.00'S	0 M	0 176°00.00'W	Trawler adrift due to engine problems. Located by RNZAF Orion aircraft on routine patrol. Towed to Tonga by fishing vessel Southwind.
<b><u>Nam Hae No.203</u></b> Tuvalu Nanumanga	- 10-Nov-1978	FV GP 06°20.00'S	159 P	1965 176°17.00'E	Grounded. Refloated and repaired at Suva. Mechanical damage.

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Aoi Maru</u> Tuvalu Funafuti Island	- 18-Jan-1979	CG GP 08°31.00'S	223 P	1972 179°08.00'E	Stranded. Refloated without assistance and sold. Casualty occurred in heavy weather. Taken to Suva.
<u>Sieh Tsin Jung</u> Tuvalu Nukufetau	- 08-Feb-1981	FV GP 08°00.00'S	187 T	0 178°30.00'E	Stranded. Left-as-Lies. Major mechanical damage. Charged for illegal fishing by Tuvalu government.
<u>Sisco</u> Tuvalu Vaitup Island	- 20-Apr-1981	CG GP 07°28.00'S	481 T	1949 178°41.00'E	Wrecked. Bottom extensively damaged. Attempt to refloat unsuccessful. Casualty occurred.
<u>Jeanette Diana</u> Tuvalu 800 miles NNE of Pagopago	US 21-Apr-1993	FV F 05°00.00'S	0 T	0 178°00.00'E	Main engine blew starting a fire. Crew abandoned vessel and were later rescued. Vessel sank 50 miles east of Tuvalu.
<u>Ryoyu Maru No.8</u> USA - Palmyra On Kingman reef 40 miles NW of Palmyra Island	- 22-Nov-1979	FV GD 06°25.00'N	134 P	1973 162°26.00'W	Stranded after an electrical fault. Owners abandoned vessel to salvors who refloated and effected repairs. Renamed Jucy and used as an auxillary salvage vessel by salvors.
<u>Hui Feng No.1</u> USA - Palmyra Palmyra Island	- 14-Jun-1991	FV GP 05°53.00'N	280 P	1969 162°05.00'W	Stranded. Crew rescued. Diesel fuel leakage.Oil pollution

<u>Vessel Name</u>	<u>Flag</u>	<u>Type</u>	<u>GRT</u>	<u>Year Built</u>	<u>Comments</u>
<u>Country of Incident</u>	<u>Date of Incident</u>	<u>Type Incident</u>	<u>Severity</u>		
<u>Location Name</u>		<u>Latitude</u>	<u>Longitude</u>		
<b><u>Shanta Shibani</u></b>	-	Bulk	15387	1971	Stranded on rocks after moorings broke in heavy weather. Refloated and taken to Guam and thence to Ulsan where temporary repairs effected.
<b>USA - Wake Island</b>	25-Jan-1984	GD	P		
Wake Island		19°17.00'N	160°37.00'E		
<b><u>Kalili</u></b>	-	FC	227	1961	Stranded. Subsequently sank following cyclones Eric and Nigel.
<b>Vanuatu</b>	16-Jan-1985	GP	T		
Palikulo Bay, Espiritu Santo Island		15°29.00'S	167°14.00'E		
<b><u>Federesen Nalkutan</u></b>	-	CG	341	1958	Wrecked during cyclone Nigel.
<b>Vanuatu</b>	18-Jan-1985	GP	T		
Segond Channel, off Espiritu Santo		15°33.00'S	167°08.00'E		
<b><u>Fetukai</u></b>	-	CG	115	1971	Took water and beached. Refloated after temporary repairs and taken to Port Vila.
<b>Vanuatu</b>	16-Jun-1987	H	P		
Tanna Island		19°30.00'S	169°20.00'E		
<b><u>Lublin II</u></b>	PO	U	0	0	Vessel leaked oil into port causing pollution
<b>Vanuatu</b>	18-Nov-1992	U	P		
Santos Port		15°31.00'S	167°10.00'E		
<b><u>Matissimo</u></b>	VU	U	0	0	Vessel leaked oil into port causing pollution
<b>Vanuatu</b>	18-Nov-1992	M	P		
Santos Port		15°31.00'S	167°10.00'E		

<u>Vessel Name</u> Country of Incident Location Name	Flag Date of Incident	Type Type Incident Latitude	GRT Severity	Year Built Longitude	Comments
<u>Latua</u> Vanuatu Between Port Vila and Shepherd Islands	- 08-May-1999	FP S 17°10.00'S	0 T	0 168°40.00'E	Vessel went missing during heavy storms. 25 passengers and crew on board.
<u>Fetukai</u> Vanuatu Tanna Island	- 16-Jun-1987	CG H 19°30.00'S	115 P	1971 169°20.00'E	Took water and beached. Refloated after temporary repairs and taken to Port Vila.
<u>Lublin II</u> Vanuatu Santos Port	PO 18-Nov-1992	U U 15°31.00'S	0 P	0 167°10.00'E	Vessel leaked oil into port causing pollution
<u>Matissimo</u> Vanuatu Santos Port	VU 18-Nov-1992	U M 15°31.00'S	0 P	0 167°10.00'E	Vessel leaked oil into port causing pollution
<u>Latua</u> Vanuatu Between Port Vila and Shepherd Islands	- 08-May-1999	FP S 17°10.00'S	0 T	0 168°40.00'E	Vessel went missing during heavy storms. 25 passengers and crew on board.



## 5 APPENDIX 5: RISK ANALYSIS METHODS AT THE REGIONAL AND EEZ SCALES

Several map layers were required to create the grounding and collision potential maps. These included the vessel traffic route and volume map, as well as the contextual map layers: reefs and shorelines. The method described here involves two distinct processes: one for the grounding hazard map and one for the collision hazard map. Both maps use a separate 'thematically-shaded grid' layer to store information processed from the traffic and context layers. For example: the product of the number of routes in a grid area and the volume of traffic in the area is stored for each grid cell. This information is then coloured for each grid cell as a low, moderate or high collision hazard.

### 5.1 Grid Creation

First, a grid was created covering the study area. Each grid square has a data field named Zero\_depth. If this field is set to '1' then a grounding hazard exists in the form of a reef or a shoreline contour. This grid need only be created once. It is re-used each time a new thematic grid map is required for either collisions or groundings.

***Step 1. Create a grid of regions in MapInfo—one degree x one degree in size.***

Use the MapInfo Grid Maker add-in tool.

***Step 2. Count the reefs and shorelines that intersect with the grid cells***

Use the MapInfo Update Column function. The OneDegreeSquares table is pre-processed using the geographic join where intersects and where within from the reefs and auspol tables to the grid table. The Zero\_depth field in the grid table is then set to 1 or 0 if there is a grounding danger or not, respectively. Steps 1 and 2 need never be repeated unless the reefs or auspol maps are updated.

### 5.2 Grounding potential thematic map

In order to cover the entire south pacific study area, the resolution of this map is one degree or 60 nautical miles square. Grounding potential is thematically mapped as the product of the existence or not of a reef or shoal within a one degree grid cell and the traffic volume.

***Step 1. Update the Grounding\_risk field in the grid cells with the product of the Zero\_depth and the traffic count.***

1.

Use the MapInfo Update Column function.

***Step 2. Create the thematic map using the Grounding\_risk field***

Use the MapInfo Create Thematic Map function.

## 5.3 Collision potential thematic map

Collision potential is thematically mapped as the product of the count of traffic routes within a one degree grid cell and the traffic volume. This function is intended to associate a higher collision potential with multiple routes in close proximity.

### ***Step 1. Count the vessel routes that intersect with the grid cells***

Use the MapInfo Update Column function. The grid map is processed using the geographic join where intersects with the table Sroutes. The field Count\_routes is set to the count of the number of vessel routes that intersect with each grid cell.

### ***Step 2. Update the Collision\_risk field in the grid cells with the sum of total traffic frequency data for all routes in Sroutes that intersect with the grid cells***

Use the MapInfo Update Column function. The grid map is processed using the geographic join where intersects with the table Sroutes. The field Collision\_risk is set to the Sum(TotalFreq) of of SRoutes that intersect with each grid cell.

### ***Step 3. Update the Collision\_risk field in the grid cells with the product of the count of routes and the total traffic count***

Use the MapInfo Update Column function. The grid map is processed by setting  $\text{Collision\_risk} = \text{Count\_routes} \times \text{Collision\_risk}$ .

### ***Step 4. Create the thematic map using the Collision\_risk field***

Use the MapInfo Create Thematic Map function

## 6 APPENDIX 6: SAMPLE FORMS

### COUNTRY DATA SHEET

**PACPOL RA1: Marine Risks Assessment**

**Reward for return, if lost to:**

Edward Anderson Marine Sciences PO Box 2125 Sidney, BC anderson\_e@coastnet.com

or (Feb – Mar 2001) c/o Institute of Applied Sciences, USP, PO Box 1168, Suva, Fiji (679) 313 900

or Sione Tu'itupou Fotu POBox 2461, Nuku'alofa, Tonga (676)22479 stfotu@kalianet.to

or GeoInfoSolutions, 10352 Arbay Close, Sidney, British Columbia, Canada V8L 4S2 (250) 656-7170, bjudson@geoinfosolutions.com

<b>COUNTRY:</b>	
-----------------	--

**MAJOR GOVERNMENT AGENCIES: PORTS, FISHERIES, ENVIRONMENT**

Agency, Department, Ministry	Contact	Address, Phone, fax, email	Contacted? (When, who)
(one row omitted)			

**MAJOR PORTS SERVING INTERNATIONAL OR INTERISLAND SHIPPING**

Port	General description	OPTIONAL: Cargoes handled, approx annual volume	Info source, year to which it applies?
(one row omitted_			



**COUNTRY DATA SHEET p2**

**COUNTRY:** \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

**ACTIVE SHIPPING LINES SERVING COUNTRY, VESSELS over 200 GRT, and VESSEL CHARACTERISTICS**

Shipping lines active in country (international lines and any in country with vessels over 200 GRT; distant-water fishing vessels may be grouped- e.g. longline FV, 200-400 GRT)			Vessels (Vessels that have called in one recent year, especially those that repeat calls on schedule)			
Line name, flag	Agent or contact	Address	Vessel name(s)	Type (container, bulk cargo, oil tanker, LNG tanker, passenger/cargo ferry, etc.)	Tonnage GRT? DWT?	Speed, kn (if known)

(use additional sheets as necessary)

# PORT DATA

## PACPOL RA1: Marine Risks Assessment

Edward Anderson Marine Sciences  
 anderson\_e@coastnet.com  
 c/o Institute of Applied Sciences,  
 University of the South Pacific  
 PO Box 1168, Suva, Fiji

email  
 phone (679) 313 900  
 fax (679) 300 373

**Country** | **Port** ( separate sheet for each port in country) | **Page** \_\_\_ of \_\_\_

### Contact(s) for this port

Data source person, position (or "see country")	Mail	<u>Phone</u>
Department, agency or company		<u>Fax</u>
		<u>Email</u>
Data source person, position	Mail	<u>Phone</u>
Department, agency or company		<u>Fax</u>
		<u>Email</u>

### Traffic Patterns

<u>Vessel (or Line of similar vessels from Country Sheet)</u> (distant waters fishing vessels may be grouped, as in examples)	<u>Inbound from</u>		<u>Outbound to</u>	Frequency (per year)
Examples	examples		examples	examples
(three rows deleted)				

(use additional sheets as necessary)

Port: \_\_\_\_\_  
 (continued)

Page \_\_\_ of \_\_\_

General practices (this section is optional, but any observations will be useful)

Ballast/deballast (Do vessels deballast to enter port? Which types of vessels, and where? )
Solid waste disposal (Do visiting vessels unload solid waste at this port? Dump at sea nearby?)
Sewage (Do vessels discharge sewage to harbour or lagoon? )
Further impressions (Bilge pumping, lube oil disposal, etc.)

**Hazards to navigation (optional section - any places of special danger to ships?)**

Near port
<u>Within country EEZ on frequently traveled routes</u>

**Environmentally sensitive areas at risk to pollution from ships (optional section)**

Near port
Within country EEZ

**Hazard/sensitive location notes and sketches - use additional pages as necessary (charts, sketches, or rough drawings will help us understand your notes)**

**Data recording notes (please leave this last section blank)**

Comments/verifications	Data recorded by
	<u>Date</u>

# SHIPPING LINE DATA

**PACPOL RA1: Marine Risks Assessment**  
 Edward Anderson Marine Sciences  
 anderson\_e@coastnet.com

**Reward for return, if lost to:**  
 PO Box 2125 Sidney, BC , Canada V8L 3S6  
 tel (250) 380-8599; fax(250) 389-2247

<b>SHIPPING LINE:</b>		Page <u>  1  </u> of <u>    </u>
Contact(s) for this line		
	Mail	<u>Phone</u>  <u>Fax</u>  <u>Email</u>

**Vessels over 200 GRT**

Vessel Name	Type*	Tonnage (GRT? DWT?)	TEU (containe r ships)	Year Built	Crew	Passen gers	Spee d, kn
Example: MV "Island Navigator"	Passen ger ferry	1250 GRT	-	1976	15	320	15
(three rows omitted)							

**Toil** - Tanker, oil and petroleum products; **TLNG** - Tanker, compressed/liquid gas; **OBO** - Oil-Bulk-Ore; **Bulk** - Bulk products carrier; **Ctr** - Container; **RoRo** - Rollo-on-Roll-off; **Pass** - Passenger vessel, including passenger/freight ferry; **GenC** - General Cargo (may have some passengers); **Othr** - Other type (explain)

**Traffic Patterns**

<u>Vessel or Class of similar vessels</u>	<u>Route</u>	<u>Frequency (per year)</u>
Example: "Island Navigator"	1. Suva-SavuSavu-Levuka-Taveuni-Suva 2. Suva - Kadavu - Suva	12 26
(ten rows of blank cells omitted)		

**Page 2, All questions optional - but any responses welcome!**

**Sketches of routes, etc. Use extra pages as necessary.**

(extra space omitted here)

Comments, sketches on hazards to navigation (bear port, EEZ). Use extra pages as necessary.

(extra space omitted here)

**General practices**

Fuel type, total capacity, where taken on
Solid waste disposal (incinerate onboard? Dump at sea? Unload at continental port? unload at island port?)
Sewage (holding? macerate/chlorinate? Discharge to harbour?)
Further impressions (Bilge pumping, lube oil disposal, etc.)

<b>Comments/verifications</b>	Data recorded by	<b>Date</b>
-------------------------------	------------------	-------------

END OF REPORT