



# The Cayman Islands Overseas Territory Search and Rescue (OTSAR) Capability Review

Prepared for the Cayman Islands Governor's Office by  
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## **Executive Summary**

‘Beautiful, tranquil, clear, deep, deceptive, unpredictable and unforgiving’ - The local community’s apt description of the waters that surround the picturesque Cayman Islands.

The United Kingdom’s Maritime and Coastguard Agency (MCA) undertook a search and rescue capability review of The Cayman Islands between the 6<sup>th</sup> and 20<sup>th</sup> December 2016 at the request of the Governor’s Office. The review was based on international requirements as laid down in the International Aeronautical Maritime Search and Rescue (IAMSAR) Manual.

The team met with senior strategic and operational officials responsible for, or participating in, SAR operations to understand the current challenges and potential solutions. Additional insights were provided through informative focus groups held on Grand Cayman and Cayman Brac, the exploration of a proposal for a Dive Response Network with a local campaigner and potential uses of new technologies in support of SAR through a meeting with a local drone company.

All stakeholders were consistently professional and open about the challenges and solutions to improve the SAR capability for The Cayman Islands. Their willingness to improve the service provision is commendable, however there are undoubtedly a number of challenges requiring a collaborative effort within the local SAR community to overcome. The recommendations provided in this report were mainly derived through discussions with them.

### **.1 Key Recommendations - IAMSAR Manual I Chapter 2 System Components**

The Joint Marine Unit Vessels are in a state of disrepair or out of service. The offshore vessel capability should be addressed as a top priority. Discussions with the Fire Service presented the opportunity to purchase wave runners at a low cost to resolve the inshore response concerns. Due to the location of fire stations and the 24/7 availability of staff, the deployment of wave runners or a similar capability should be explored as a high priority. The integration of available secondary sources of SAR should be considered in the longer term, including the potential of a dive response network and use of existing volunteer sources of SAR in the Cayman Islands.

### **.2 IAMSAR Manual 1 Chapter 3: Training, Qualification, Certification and Exercises**

At present there are no formal training packages. It is recommended that the Joint Marine Unit takes oversight of SAR with training packages being extended to the other emergency services and, in time, volunteer responders. The development of bespoke training packages for all is an important element to increase capability.

### **.3 IAMSAR Manual I Chapter 4 Communications**

Emergency call handling and emergency response are handled by different agencies, resulting in a disconnect between alerting and response. It is recommended that the Record Management System is shared with the Air Operations Unit and the Joint Marine Unit to improve information flows and ensure all parties involved in SAR have a common picture.

### **.4 IAMSAR Manual I Chapter 5 System Management - Define Roles and Responsibilities**

Discussions with the operational stakeholders and two focus groups provided a consistent response. One of the key messages received was the need for clarity on the roles and responsibilities of the departments involved in SAR. It is recommended that a clear distinction of responsibilities and definitions of individual organisation's roles are established through inter agency memoranda of understanding. A draft Memorandum of Understanding (MOU) is attached as derived from the IAMSAR Manual to support this recommendation.

### **.5 Search and Rescue Committee and Operational Working Groups**

The original business case for the Joint Marine Unit recommended a strategic committee to oversee search and rescue. This is strongly recommended. Regular strategic and operational discussions will effectively determine ways to enhance the overall effectiveness and efficiency of SAR services. A Sample National Interagency SAR Committee agreement for a Cayman Islands National Search and Rescue Committee is attached at annex.

Furthermore an Operational Working Group would increase liaison between the organizations. It will help to refine capabilities to ensure the most appropriate and timely use of resources and the most effective response to SAR situations.

### **.6 Conclusions**

The community and stakeholders on the Cayman Islands are rightly proud of their maritime history and with the appropriate mechanisms in place could work together to provide effective search and rescue.

Whilst there is a lot of work to be done there is clearly willingness within the Cayman Islands to undertake the challenges. Formal interagency communication and the implementation of high level plans and goals which apply to multiple stakeholders will ensure continuous improvement of the SAR system. Clearly defined roles and responsibilities will reassure the stakeholders of what is expected of them and provide a stronger search and rescue service. Resolving the current issues with resourcing and assets combined with appropriate training and exercising will reinforce the existing service.

Our thanks go to the Cayman Islands inhabitants for fully embracing this opportunity and for being consistently welcoming and open.

# Introduction

## .7 Abbreviations and Acronyms

Some of the terms used in the abbreviations and acronyms and the glossary are derived from the IAMSAR documents produced by ICAO and IMO.

|             |                                     |               |  |
|-------------|-------------------------------------|---------------|--|
| <b>SAR</b>  | Search and Rescue                   | <b>SRR</b>    | Search and Rescue Region                           |
| <b>OT</b>   | Overseas Territories                | <b>RCC</b>    | Rescue Coordination Centre                         |
| <b>MCA</b>  | Maritime and Coastguard Agency      | <b>SMC</b>    | SAR Mission Coordinator                            |
| <b>HMCG</b> | Her Majesty's Coastguard            | <b>CIM</b>    | Critical Incident Manager                          |
| <b>USCG</b> | United States Coastguard            | <b>RCIPS</b>  | Royal Cayman Islands Police Service                |
| <b>CI</b>   | Cayman Islands                      | <b>IAMSAR</b> | International Aeronautical and Maritime SAR Manual |
| <b>FCO</b>  | Foreign and Commonwealth Office     | <b>ICAO</b>   | International Civil Aviation Organisation          |
| <b>IMO</b>  | International Maritime Organisation | <b>HMG</b>    | Her Majesty's Government                           |

## .8 Glossary

Some of the terms used in the abbreviations and acronyms and the glossary are derived from the IAMSAR documents produced by ICAO and IMO.

|                                   |  |
|-----------------------------------|--|
| <b>Rescue Coordination Centre</b> | A unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations with a search and rescue region |
| <b>Search and Rescue Region</b>   | An area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided  |

## .9 Scope

The report provides an in-depth review of the search and rescue capability of the Cayman Islands and seeks to identify gaps and highlight potential enhancements to ensure the safe and efficient execution of incidents and delivery of resources.

- Execute a desk research and site visit to the Cayman Islands 6 – 20 December 2016
- Review of current government policy and funding streams
- Review of legislative framework in the Cayman Islands and identification of gaps
- Review of international obligations and the extent to which they are being met
- Examination of current working practices and policies in relation to joint SAR operations with other coastguards
- Discussion with relevant community groups to determine a cross section of public perception Review of current practices, equipment, training, staffing levels, system management, media handling, data capture and reporting relevant to SAR in the emergency services and local resilience community
- Review of potential new technologies and equipment that may be relevant and cost effective for use

- Production of a prioritised, appropriate, costed strategy

## **.10 The Authors and the Maritime and Coastguard Agency (MCA)**

This report has been prepared by Phillip Bostock (National Maritime Operations Commander HM Coastguard) and Naomi Davies (International Projects Coordinator) of the Maritime and Coastguard Agency (MCA). The MCA is an executive agency of the United Kingdom's Department for Transport and works to prevent the loss of life on the coast and at sea, producing legislation and guidance on maritime matters, and providing certification to seafarers.

HM Coastguard is the operational response section of the Maritime and Coastguard Agency and is responsible for the initiation and co-ordination of maritime and aeronautical Search and Rescue (SAR) within the United Kingdom's Search and Rescue Region. This includes the mobilisation, organisation and tasking of adequate resources to respond to persons, vessels or craft either in distress at sea, or to persons at risk of injury or death on the cliffs or shoreline.

## **.11 Introduction**

Her Majesty's Government (HMG) is responsible for the good governance of the Overseas Territories (OT) and has developed a strategy of engagement in order to help meet the challenges and opportunities of the 21st century. This includes strengthening links with the UK, improving governance and enhancing support to the Territories. Each Territory has a unique community and it is for the Territory to shape its future, but most of them face similar challenges as a result of their small scale or isolation. The local populations are reliant on the sea for tourism, recreation and trade, therefore adequate provision of search and rescue capability is vital.

As a result of a high profile incident, the Maritime and Coastguard Agency (MCA) carried out an independent review of the SAR response in the Cayman Islands in April 2016. The Governor's Office in the Cayman Islands subsequently put forward a proposal under the Conflict Stability and Security Fund (CSSF) for the MCA to conduct an in-depth review of Search and Rescue (SAR) capability across the OTs. Funding was approved for this at the end of August 2016 and desk research and a site visit were carried out in November and December 2016.

Credit should go to the Governor's Office for initiating this and considering it in the wider context of the overseas territories. The recommendations/actions arising from the Cayman Islands Review should not be taken in isolation as applying to the Cayman Islands only. The SAR capability review will consider common areas for improvement across the OTs to provide a bigger picture view of where cross OT provision or collaboration is viable. After each review we will publish individual reports. There will also be an overarching final report that looks at cross OT provision and collaboration.

The review terms of reference stated that costed strategies would be provided for each OT. Where there are anticipated costs we have endeavoured to include known

information or an estimated guideline amount. This is with the caveat that a procurement exercise would have to be undertaken and a full investigation of estimated costs would need to take place. The review was based on the requirements of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual and its practical application.

## **.12 Site Visit**

The United Kingdom's Maritime and Coastguard Agency visited the Cayman Islands from 6 - 20 December 2016. The team assessed the search and rescue capability against the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

An initial meeting with the Governor, Deputy Governor, Police Commissioner and Head of the Governor's Office helped us understand the requirements of the search and rescue capability review from the Cayman Islands strategic perspective.



Pictured from left to right:

- Deputy Governor Hon Franz Manderson
- Philipp Bostock Head of International Liaison,
- Her Excellency The Governor, Helen Kilpatrick,
- Naomi Davies OTSAR Project Coordinator and
- Police Commissioner Derek Byrne

The team were given the following practical advice to bear in mind when undertaking the review to ensure that the outcomes would be fit for purpose and practically applicable to the Cayman Islands:

- Consider practical ways of using resources
- Considerations of cooperation
- Multi-tasking options
- The use of volunteers
- Practical ways to coordinate and train volunteers
- Ways of promoting the use of life jackets
- Use of vessels already located on the island to support search and rescue
- Use of technologies for SAR e.g. drones
- Bear in mind the current political pressures and SAR requirement as a result of the Cuban migrant issue

## **.13 Interviews**

Following this initial meeting the OTSAR Review team interviewed the following key stakeholders:

- The Air Operations Unit
- Fire Service
- Immigration



- The Deputy Commission of Police
- The Civil Aviation Authority
- The Joint Marine Unit
- Customs
- Home Affairs
- Hazard Management
- Police Public Relations
- A Local Drone Operator
- The Maritime Administration
- Port Authority
- Attaché for Jamaica and the Cayman Islands
- Department of Public and Safety Communications
- Volunteer Dive Response Representative

#### **.14 Discussion with relevant community groups to determine a cross section of public perception**

Feedback from the local community was provided through two focus groups on Grand Cayman and Cayman Brac. The Deputy Governor's Office provided excellent support, lead the meetings, provided advice and drafted the reports. The two focus groups identified similar issues to the stakeholders. Where additional issues were identified these have been included in the proposals. The detailed reports are included at annex. These were extremely useful meetings. The attendees were informed and provided reassurance that if a volunteer service were to go ahead, and provided an appropriate system was put in place, there would be a great deal of support for it.

#### **.15 Review of current practices, equipment, training, staffing levels, system management, media handling, data capture and reporting relevant to SAR in the emergency services and local resilience community**

The Joint Marine Unit and Air Operations Unit leaders and teams were found to be extremely professional, knowledgeable and dedicated. There was a strong sense of team camaraderie within each of the operational teams. They are accustomed to going above and beyond their contracted hours of work to ensure the safety of the Cayman Islands inhabitants. The Unit Leaders work well together and with their combined experience and vision could effectively lead the SAR Working Group. The Aviation Plan meets the needs of an operational plan.

The Fire Service are very experienced and professional with a 24 hour capability. As a top priority establishing their capacity for Inshore Response could be considered to ease the heavy workload for the Joint Marine Unit. The location of the fire service stations means that provision of jet skis or rigid inflatable rescue boats could provide a rapid inshore response. Training would be required. Also the Chief Fire Officer could be considered a point of contact on the proposed SAR Working Group for procurement advice.

The Port Authority had a great deal of experience and practical expertise to offer. They should be represented on the SAR Working Group. They are an effective

alerting post and are very willing to provide additional support. This should be considered, but training would be required.

The Department of Public and Safety Communications were well represented with a forward facing viewpoint on technology and its utilisation. They should be included in the SAR Working Group as a priority to ensure ongoing communications with the other departments. They should also look to share their RMS CAD system with the Joint Marine Unit and the Air Operations Unit as a quick win.

Home Affairs take a very pragmatic and knowledgeable overview of operations. They should be involved in the SAR Strategic Committee and will be especially important in the monitoring of statistics and budget considerations. Their representation on the Strategic Committee along with the key stakeholders would address the need for a more holistic approach to procurement. This should be based on stakeholder need and aligned with a longer term strategy.

The Civil Aviation Authority will be a key stakeholder for the SAR Strategic Committee. Their experience, knowledge, processes and procedures will be a very useful resource. Also their use of regular exercises in the three islands is to be acknowledged as best practise and lessons learned could be promulgated through the proposed Strategic SAR Committee. The SAR Working Group could also be involved in practical and desk top exercises.

The Immigration and Customs representatives had a great deal of combined experience and practical solutions and suggestions, both should be represented on the SAR Strategic Committee.

The Maritime Administration were well represented. They should be included on the SAR Strategic Committee to ensure the strategic aims are aligned with international requirements.

Police Public Relations have a forward looking representative who will be able to lead the strategic delivery of media handling. The representative should ensure the Operations Plan includes a strategic element on communications.

#### **.16 Review of potential new technologies and equipment that may be relevant and cost effective for use**

The team met with an Unmanned Air Systems (UAS) Operator in the Cayman Islands. The operators provided an official response to the independent review of the Royal Cayman Islands Police Service (RCIPS) SAR Response in May 2016. Their proposal is around UASs ability to complement and enhance the overall SAR capability of the RCIPS whilst remaining cost effective.

#### **.17 Examination of current working practices and policies in relation to joint SAR operations with other coastguards**

A teleconference took place between the team and the US Coast Guard Attaché to Jamaica and the Cayman Islands. The representative was very helpful and verified that the RCIPS has established a good working relationship with the US Coastguard. There are no formal or informal cooperation agreements in place that cover search and rescue operations. The representative was open to the idea of a Memorandum of Understanding (MOU) to clarify the lines of communication.

## Overview of the Cayman Islands

The Cayman Islands are founded on a rich and proud maritime heritage, being surrounded by some of the deepest waters in the world.

### .18 Overview of the Islands

The early Caymanians looked to the sea for their livelihood which is reflected in the islands motto “He hath founded it upon the seas”. The territory consists of three islands, Grand Cayman, Little Cayman and Cayman Brac.



In addition to its population of 55,036 (2011 Census), The Cayman Islands are a popular tourist destination. Numbers have been increasing over the last few years with a total of 385,379 tourist air arrivals and 1,716,812 tourist cruise arrivals in 2015 (Cayman Island Government Arrival Statistics).

In the first half of 2016, total visitor arrivals increased by 5.5% to 1,183,799 with a growing number of cruise visitors. The majority of visitors come from the USA (79%), Canada and Europe (equally with 14%) (Economic and Statistics Office Semi-Annual Economic Report 2016). Most tourists will enjoy one or more water related activities, ranging from swimming and snorkelling, diving and fishing to sailing, jet skiing and parasailing. In addition to facilities offered by hotels and cruise vessels, there are over 54 water sport operators (Cayman Island Tourist Board).

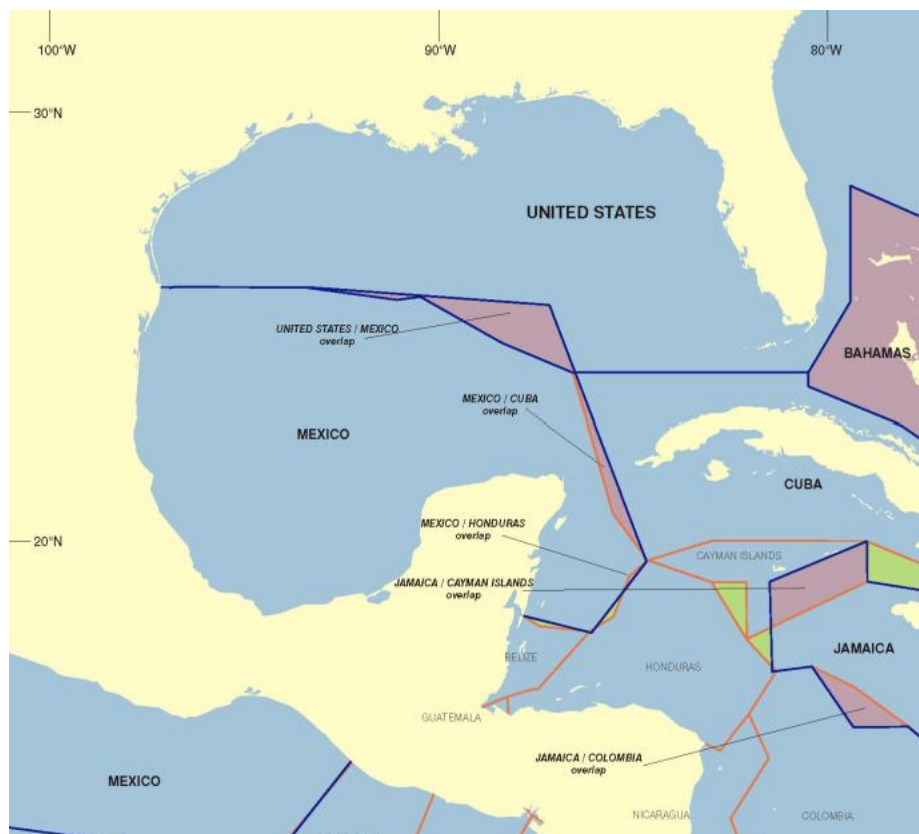
Although the numbers of deaths by drowning are low (2 reported deaths from drowning in 2010), an average of 3.7 deaths per 100,000 population is above the average for high-income countries across the world (2.3) and low and middle income countries of the Region of the Americas (3.0). (WHO Global Report on Drowning: Preventing a Global Killer, 2014). There are no recent official statistics available, but according to an article published by the Cayman Compass, a total of 17 people are

presumed to have died in water related incidents during 2016 with an average of 10 cases per year between 2007 and 2012. According to recorded incident reports, the Air Operations Unit responded to 51 incidents indicating a swimmer or a boat in distress, missing or overdue in 2015 and 35 in 2016.

## .19 The Joint Marine Unit SAR Incidents in 2016

|                             |    |
|-----------------------------|----|
| Search and Rescue           | 8  |
| Person/vessel in distress   | 45 |
| Vessel interdiction         | 4  |
| Sudden Death                | 12 |
| Investigations              |    |
| Marine related thefts       | 10 |
| Other marine Investigations | 4  |

The Cayman Islands Maritime Search and Rescue Region borders those of Cuba, Jamaican and Honduras. The SRR is provisional and services have not been officially declared in the global Search and Rescue Plan (SAR.8/Circ.4 2012)



The Cayman Islands are covered by the Kingston Flight Information Region (Jamaica) and are responsible for aeronautical Search and Rescue in the Cayman Islands Terminal Manoeuvring Area (TMA) during Air Traffic Control hours of operation. The Civil Aviation Authority of the Cayman Islands publishes the TMA and responsible services in the Integrated Air Information Package, GEN 3.6 (Search and Rescue)



## **Part 1 – An overview of current Search and Rescue Provision in the Cayman Islands**

### **.20 Responsibility for Provision of SAR**

De jure, responsibility for maritime SAR rests with the Maritime Authority. Although there is no legal framework in place, de facto this has been delegated to the Royal Cayman Island Police Service (RCIPS). The Joint Marine Unit (JMU) and the Air Operations Unit (AOU) located on Grand Cayman undertake the maritime and aviation responsibilities respectively in addition to other police and law enforcement functions. Other agencies involved are the Cayman Islands Fire Service, Her Majesty's Customs and the Department of Public Safety Communications.

### **.21 Coordination of an incident**

As there is no single Maritime Rescue Coordination Centre (MRCC) in existence, the coordination of an incident involves different departments and is handled from multiple locations as the incident progresses.

## **The Joint Marine Unit (JMU)**

### **.22 Background**

The Joint Marine Unit was formed in 2006 following a memorandum of understanding between the Royal Cayman Islands Police Service, Her Majesty's Customs and the Cayman Islands Immigration Department.

### **.23 Current Practises**

The JMU is the primary agency for the waterborne enforcement of the laws governing the Cayman Islands and public services. They assist any entity of Her Majesty's Navy, United States Coast Guard and other overseas territories in the interventions of illegal trafficking of contraband or human smuggling. Their role also includes maritime operations, search and rescue, boater safety education to the general public and vessel safety inspections. They are responsible for the safety and security of the navigable waterways in Cayman Islands. The Joint Marine Unit is located in North Sound Estates.

### **.24 Working with other emergency services**

Although the AOU and JMU carry out exercises and have in the past attended exercises held by other emergency services (e.g. airport incident exercise run by the Fire Service), these depend on the operational workload and availability of staff and assets. There is no formal SAR exercise programme in place, either internally within the RCIPS or externally in cooperation with other organisations or bodies providing

SAR services and there is no structured system in place for planning, execution and evaluation of exercises.

Regarding Medivacs the unit works closely with the Health Service Authority. They also have a working relationship with the Port Authority and undertake joint Operations and training with the Royal Navy when they are in the area.

## **.25 Staffing Levels**

The Marine Unit Strategic Plan in 2006 recommended 3 shifts deployed on a 24 hour cover basis. It was intended that the staff complement on completion of the successful procurement of the below listed vessels was to increase to thirty five trained personnel.

The Joint Marine Unit is currently operating well below the complement originally intended. Current staffing levels are 1 Marine Commander, 1 Police Sergeant, 9 Police Constables, 2 Customs officers, and 1 immigration officer. This allows for two shifts, seven days per week working 9 hour days.

## **.26 System Management**

Operational SAR units lack standard operating procedures, policies and protocols. Although these have been in existence previously, the majority of this information has been lost due to a server defect resulting in the loss of data. JMU and AOU are trying to re-establish these procedures.

An aviation SAR Plan as required by ICAO Annex 12 exists in draft format (Draft Release 3 - November 2016) but there is no maritime SAR plan in existence.

The latest Global SAR Plan (IMO SAR.8/Circ.4, 01 Dec 2012 Annex 4), publicises the Cayman Islands SRR as provisional with no declared information about the coordination or available SAR assets as required by COMSAR.1/Circ.52.

There are issues around the lack of availability of personnel, resources and assets. Secondary sources of SAR are willing to assist but are not currently formally utilised.

## **.27 Data Capture and Reporting Relevant to SAR**

There is no cross-agency SAR incident reporting process and database to include the number of incidents, responses, sorties, lives saved, lives lost, persons otherwise assisted, value of property lost, value of property saved/assisted, property loss prevented and time expended on sorties.

## **.28 Media Handling**

Interactions with the media are handled through the RCIPs Communications Unit. Managing media affairs is an important element of SAR operations. There have been



challenges managing public perceptions and expectations that the JMU will be available 24/7.

## **.29 Maintenance**

The strategic plan further proposed that maintenance would be handled in house. The proposal was for 3 fully trained engineers to cover the anticipated 3 shifts. These officers were to be trained through the Royal Navy. Due to cost cutting measures the budget was reduced from \$500,000 for a 12-month financial year to \$270,000 for the current 18-month financial year. This represents a reduction of \$320,000.

## **.30 Training**

The JMU is currently more than 50% below complement in comparison with its original design and setup with only 12 officers. Some staff within the units have SAR experience or training from previous occupations, and some training has been delivered over the last few years by the Royal Navy, Canadian Coast Guard and Caribbean Military Maritime Training Centre, from which personnel have received certifications. While this training has been to a high standard, staff report it has not taken place with sufficient regularity.

## **.31 Current Working practices and policies in relation to joint SAR Operations**

Due to the geographic proximity of the United States as well as the limited availability of SAR assets from neighbouring nations, the RCIPS has established a good working relationship with the US Coastguard. Any requests for assistance are currently channelled via the US Coast Guard Attaché to Jamaica and the Cayman Islands based at the US Embassy in Kingston, Jamaica, who then forwards the request to RCC Miami (7<sup>th</sup> District). This channel of communications risks significant delays in notifying the relevant RCC and in consequence might delay the provision of any assistance.

There are no formal or informal cooperation agreements in place that cover search and rescue operations.

## **.32 Joint Marine Unit Equipment**

Currently only two of the JMU vessels are serviceable with both long range vessels decommissioned or out of service. The remaining two serviceable crafts are RHIBs and are only suitable for inshore response. The inshore assets are currently located at the JMU base and require moving by trailer to a suitable launching spot if responding to an incident on the other side of the island. This can incur a long transit to certain incident location.

### **Guardian (Out of Service)**



**Protector (Out of Service)**



- 65ft Dauntless Sea Ark
- 2 x V12 Mann Engines
- Long Range/Off Shore Patrol Vessel
- Equipped with marine safety and navigation and tactical equipment
- AED and First Aid

- 40ft Dauntless Sea Ark
- 2 x V10 Mann Engines
- Long Range/Off Shore Patrol Vessel
- Equipped with marine safety equipment

**Defender (Out of Service)**



- 38ft Dauntless Sea Ark
- 2 x V6 Mann Engines
- Short/Mid-Range Patrol Vessel
- Contains marine safety and navigation equipment
- AED and First Aid
- Equipped with FLIR camera system

**Niven D**



- 38ft Interceptor vessel
- 4 x 300hp Mercury Engines
- Equipped with marine safety and navigation equipment
- AED and First Aid
- Equipped with FLIR camera system

**Tornado (Out of Service)**



- 38ft Interceptor vessel
- 4 x 300hp Mercury Engines
- Equipped with marine safety and navigation equipment
- AED and First Aid
- Equipped with FLIR camera system

## **Typhoon**



- 28ft Ribb
- 2 x 150hp Evinrude Engines
- Equipped with marine safety and navigation equipment

## **The Air Operations Unit**

### **.33 Background**

The Air Operations Unit (AOU) was formed in March 2010 and operates under a Civil Aviation Authority (CAA) issued Police Air Operators Certificate. They were not originally established for the purposes of search and rescue.

### **.34 Current Practises**

The Air Operations Unit has a helicopter. The helicopter provides support for drugs interdiction and other police operations. The unit crew as medical responders. They also carry a stretcher on the back and can serve as an air ambulance.

The helicopter accrues in excess of 400 flying hours yearly and averages over 1,000 separate taskings. The unit provides border protection (offshore up to 100 nautical miles), emergency response, support for fire and rescue, SAR co-ordination, major incident / disaster response, pro-active patrols, support for marine conservation, surveillance and an air ambulance capability.

The Police helicopter crews operate visual contact flight, which means they have to maintain a visual reference at all times. Night flights are undertaken over land without restriction, but overwater flights require a discernible horizon (moon light) or visual reference back to land. The Unit have procedures to allow for night flights offshore in cases of extreme emergency.

The AOU are completing the research and business case submission for NVG operation on the aircraft to enhance their night ability and effectiveness.

The aircraft is always fuelled and on operational standby.

### **.35 Staffing Levels**

The AOU is not on duty 24/7. They operate civil service hours and are reliant on crew availability outside these times. They run 2 crews, with 4 Tactical Flight Officers on staff.

The current staffing is 1 Unit Executive Officer (UEO) also a Tactical Flight Officer (TFO), 2 Pilots, One Sergeant (Deputy UEO and also TFO), 2 police TFO's. This allows for two crews and seven days a week operation.

### **.36 System Management**

A fit for purpose aviation SAR Plan as required by ICAO Annex 12 exists in draft format (Draft Release 3 - November 2016)

### **.37 Current Working practices and policies in relation to joint SAR operations**

The Department of Environment "Buoys in Water Project" has proved useful in search planning. Search planning is currently provided by some staff of the JMU and AOU. This is done in a time consuming way by basic plotting of drift models on paper charts and depends on staff having received training in recent years. If further assistance is required, this is usually provided by the US Coastguard on request of the RCIPS.

### **.38 Data Capture and Reporting Relevant to SAR**

There is no cross-agency SAR incident reporting process and database to include the number of incidents, responses, sorties, lives saved, lives lost, persons otherwise assisted, value of property lost, value of property saved/assisted, property loss prevented and time expended on sorties.

### **.39 Training to be a Tactical Flight Officer**

Some staff within the units have previous SAR experience or training from previous occupations and some training has been delivered on an ad-hoc basis (e.g. boat handling or basic search planning). Courses for Tactical Flight Officers (TFOs) included search planning, navigation and principles of search based on best practice of aviation search methods.

### **.40 Media Handling**

Interactions with the media are handled through the RCIPS Communications Unit. Managing media affairs is an important element of SAR operations. There have been challenges managing public perceptions and expectations that the AOU will be available 24/7.

### **.41 Area of Operation**

100 miles range of the Islands to the West and South, Cuba international boundary to the north and Jamaica international boundary to the east.

#### **EC135 T1 Police Helicopter**



- FLIR Ultraforce II Camera turret
- 700w Skyshout public address system
- SX5 Nightsun Two integrated police tactical radios
- Integrated Garmin GPS system
- Video downlink capability

## **The Cayman Islands Fire Service**

### **.42 Background**

The Cayman Islands Fire Service provides firefighting and rescue services to the three islands. There are three fire stations on Grand Cayman located in West Bay, George Town and North Side. There is also one station in Cayman Brac and one in Little Cayman. The Cayman Islands Fire Service deals with a variety of emergencies such as aircraft accidents, fires, the collapse of buildings, road accidents etc.

The Cayman Islands Fire Service (CIFS) is strategically located throughout each of the three islands and is responsible for providing emergency response coverage to the entire Cayman Islands. Stations are all staffed full time and the CIFS is looking to put in a new fire station in Bodden Town.

The Cayman Islands Fire Service presented an option to purchase wave runners at a low cost to help resolve the inshore response concerns. This would have the additional benefit of the dispersed location of fire stations across the island and the 24/7 availability of trained personnel. Recommendations on this proposal are addressed further on in the report.

### **.43 Current Practises**

The Fire service assists the RCIPs with the locating and recovering of missing persons when called upon. ICAO regulations mean they have to provide a rescue capability for aircraft that land at the airport. They have a Fire Rescue Boat with 5 life rafts, each with a capacity of 60. This capacity is for the shoreline only.

### **.44 Training**

Although they do not currently have the capability, historically fire officers were trained as:

- Rescue divers (shallow and open water rescue teams would need to be reinstated)
- Lifeguards

- Coastal and inshore rescue boat operators
- Inland and inshore water rescue -Urban Search and Rescue (USAR) Specialists
- Firefighting boat operators

#### **.45 Staffing**

There are 115 operational officers with 24 hour cover at all fire stations except Little Cayman.

#### **.46 Prevention Activities**

The Fire Service do a fire safety tour but this does not cover marine safety. They used to do tours in schools on sea safety and the Joint Marine Unit used to do this in Cayman Brac.

#### **.47 SAR remit**

The Fire Service's only search and rescue remit is their internationally laid down obligations for airports.

#### **.48 Statistics and reporting**

There is no cross-agency SAR incident reporting process and database to include the number of incidents, responses, sorties, lives saved, lives lost, persons otherwise assisted, value of property lost, value of property saved/assisted, property loss prevented and time expended on sorties.

#### **Fire Rescue Vessel**



- 32-foot rescue boat with GPS
- Flood lights, spot lights
- Reaches speeds of up to 50 mph
- Accommodates a crew of seven people
- Six inflatable rescue rafts on board hold up to 300 people

## **The Port Authority for the Cayman Islands**

### **.49 Background**

The Port Authority is the channel of communications between the three Cayman Islands. During Operational hours they work from approximately 07:00 – 18:00 local time.

### **.50 Current Practises**

VHF is handled in the security office, anybody that has VHF calls Port Security. They have recently ordered a satellite phone to be mounted in the security room and make use of social media. They have closed circuit television to view the harbour. The VHF Range is 20 - 40 miles depending on the weather, there is an AIS antenna in the security room. They handle VHF communications for the police as well. They call 911 if there is an emergency and also notify the Joint Marine Unit.

There is complete VHF coverage for Grand Cayman, there are challenges with VHF on Cayman Brac although the Government has an antenna there.

### **.51 Staffing**

The Port Authority currently has one member of staff on shift but can increase this with support staff if needed.

### **.52 Training for boat crews**

The Authority undertakes Tactical Advantage Training through the US marine law enforcement agencies. They meet every year. This covers accidents, boat handling, arrest, terrorism, handling vessels during live firearm operations, SAR training, mass casualty and incident command training, CPR and certified divers incident training. Internal training is undertaken for those handling the radios. Some have also undertaken mass casualty and incident command training. They train with Hazard Management ,the US Coast Guard and with local response agencies, EMT.

### **.53 Internal Agreements**

There are no formal arrangements for the provision of search and rescue between the Port Authority and Joint Marine Unit. An email arrangement exists for the provision of joint patrols for the George Town Harbour and Seven Mile Beach areas.

## **Challenger**





- 26 foot vessel
- Wide side decks
- Good visibility

## **Cayman Brac and Little Cayman**

### **.54 Cayman Brac**

Cayman Brac is 89 miles northeast of Grand Cayman. It is 15 square miles. 12 miles long and on average 1.5 miles wide. The highest point is the Bluff at approximately 140ft above sea level. Cayman Brac is the larger of the Sister Islands with an estimated population of 1500 residents. Cayman Brac waters are used for fishing and diving opportunities.

### **.55 Little Cayman**

Little Cayman is approximately 5km west of Cayman Brac. The highest point is about 40 ft. The estimated population is 170 residents. The island is 10 miles long with an average width of 1 mile. Little Cayman is known for its excellent scuba diving.

### **.56 Current capability**

The sister islands Cayman Brac and Little Cayman have limited government-led search and rescue capabilities. The police helicopter can and has enabled search and rescue in the waters surrounding the Sister Islands, in coordination with available resources, including commercial traffic. However there are no government owned search and rescue surface vessels available in the sister islands.

The Fire Rescue boat currently situated on Cayman Brac is out of operation. Due to lack of staff and budget issues the Joint Marine Unit has not had a presence on either islands since August 2016.

Volunteer capability is provided by diving companies, however there are liability concerns.

Cayman Brac Customs have a new fishing vessel not purposed for search and rescue and not yet fully operational. The department of Environment no longer has a sea worthy vessel. The Port Authority has no vessel.

### **.57 Communications**



Communications to the Sister Islands is handled by telephone. The VHF capability does not extend to Grand Cayman.

## **.58 Governance Structure**

There is currently a lack of coordination. There is no committee, no enforcement, there is no structure in place and there are a lack of procedures and definition of roles and responsibilities.

### **Customs Patrol Boat**



- 26 foot forward seating patrol vessel
- Twin Yamaha F150 4-Stroke Engines
- Fitted with siren and police radio

## **Part 2 – Assessing the International Responsibility on the Cayman Islands for the Provision of SAR, Conclusions and Recommendations**

### **General System Concept (IAMSAR Manual 1 Chapter 1)**

#### **1.1 Establishing Services**

The Cayman Islands recognise the great importance of saving lives and the need to be directly involved in rendering aeronautical and maritime SAR services to persons in distress.

#### **1.2 Benefits of Services**

Besides the reduction of loss of life and suffering by providing rescue services, the Cayman Islands concern for and involvement with SAR may offer other advantages, such as:

- Safer and more secure environment for aviation and maritime related industries, commerce, recreation and travel
- Availability of SAR resources for the provision of initial response and relief capabilities critical in saving lives in early stages of natural and man-made disasters and in support of the national emergency management system
- Positive publicity through well performed SAR operations
- Opportunity for promoting cooperation and communication among states through SAR provision

#### **1.3 Legal Basis for Services**

The Cayman Islands, as an Overseas Territory, do not have the authority to become party to treaties in their own right unless expressly authorised to do so by the UK Government. The following international treaties have been extended to The Cayman Islands:

International Convention for the Safety of Life at Sea (SOLAS), 1974

- SOLAS was adopted on 1 November 1974 and entered into force in the UK on 25 May 1980. It was extended to The Cayman Islands on 23 June 1988.

SOLAS Chapter 5 Regulation 7 (Search and Rescue Services) states:

- Each Contracting Government undertakes to ensure that necessary arrangements are made for distress communication and co-ordination in their area of responsibility and for the rescue of persons in distress at sea around its coasts. These arrangements shall include the establishment, operation and maintenance of such search and rescue facilities as are deemed practicable and necessary, having regard to the density of the seagoing traffic and the

navigational dangers and shall, so far as possible, provide adequate means of locating and rescuing such persons.\*

Each Contracting Government undertakes to make available information to the Organization concerning its existing search and rescue facilities and the plans for changes therein, if any.

\* Refer to the International Convention on Maritime Search and Rescue, 1979 and the following resolutions adopted by the Organization: Homing capability of search and rescue (SAR) aircraft (resolution A.225(VII)); Use of radar transponders for search and rescue purposes (resolution A.530(13)); Search and rescue homing capability (resolution A.616(15)); and International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual (resolution A.894(21)).

### **United Nations Convention on the Law of the Sea (UNCLOS), 1982**

UNCLOS was adopted on 10 December 1982 and entered into Force on 16 November 1994. The UK extended the treaty by depositing its instrument of accession, including The Cayman Islands, on 25 July 1997. UNCLOS Article 98 (Duty to render assistance) paragraph 2 states:

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 neighbouring States for this purpose.

### **Convention on International Civil Aviation (Chicago Convention), 1944**

The Chicago Convention was adopted on 7 December 1944 and entered into force on 5 March 1947. Provisions regarding SAR, in particular Annex 12, were extended to The Cayman Islands through Article 7 of the Air Navigation (Overseas Territories) Order 2013. Annex 12, paragraph 2.1 states:

Contracting States shall, individually or in cooperation with other States, arrange for the establishment and prompt provision of search and rescue services within their territories to ensure that assistance is rendered to persons in distress. Such services shall be provided on a 24-hour basis.

### **International Aeronautical and Maritime Search and Rescue Manual (IAMSAR)**

The goal of this manual is to assist state authorities to economically establish effective SAR services, to promote harmonisation of aeronautical and maritime SAR services, and to ensure that persons in distress will be assisted without regard to their locations, nationality or circumstances under the framework of SAR initiatives sponsored by the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO), two agencies of the United Nations

devoted to aeronautical and maritime transportation safety, respectively. (IAMSAR Manual 1, Chapter 1, paragraph 1.1).

### **International Maritime Organisation Instruments Implementation Code (III Code)**

Part 3 of the III Code refers to the responsibility of coastal states and specifically mentions the compliance with SOLAS Reg. V/7.1 Search and rescue services - necessary arrangements and V/7.2 Search and rescue services – information to IMO in Annex IV:

“Coastal States have certain rights and obligations under various mandatory IMO instruments. When exercising their rights under those instruments, coastal states incur additional obligations. In order to effectively meet their obligations, coastal states should:

- Implement policies and guidance which will assist in the implementation and enforcement of their obligations; and
- Assign responsibilities within their administration to update and revise any relevant policies adopted, as necessary.

### **International Convention on Maritime Search and Rescue (SAR), 1979**

Although recommended by the UK Government, The Cayman Islands are not party to the International Convention on Maritime Search and Rescue (SAR) 1979 which was adopted on 27 April 1979 and entered into force in the UK on 22 June 1985.

Being party to SOLAS, UNCLOS and the Chicago Convention, The Cayman Islands undertake to provide aeronautical and maritime SAR coordination and services and through the Maritime Authority Law has put in place the legal foundation for establishing a SAR organisation.

#### **1.3.1 Consider extension of the SAR Convention (1979) to the Cayman Islands**

*It is recommended to consider the extension of the SAR convention in the future, however as the Cayman Islands are already party to the above named conventions, this should be considered as a low priority at this time, bearing in mind the timescale required for the legal work to extend a convention as well as the more urgent requirement for other maritime conventions to be extended.*

#### Pricing advice

There are two options for the extension of the SAR Convention to the Cayman Islands. Either formal extension from the United Kingdom or local implementation through domestic legislation.

With either option there would be a requirement for legislation to be drafted and passed. The Cayman Islands Government Legal Drafting Department has other areas to be addressed as a higher priority. This would require legal drafting in

matters maritime or transposing IMO Conventions into domestic law. If this approach was to be considered the Cayman Islands Government would most likely need to engage suitable contract draftsmen.

#### **1.4 Basic System Functions**

To comply with the basic requirements of international conventions, The Cayman Islands SAR system should be structured to be able to:

- Receive, acknowledge and relay notifications of distress from alerting posts
- Coordinate search response
- Coordinate rescue response and delivery of survivors to a place of safety
- Provide medical advice initial medical assistance or medical evacuation

More information on these functions are provided in section 2.1.

#### **1.5 System Management and Support**

To ensure that the SAR system is effectively managed and supported, The Cayman Islands have to enable managers to understand:

- The fundamentals of the system they are managing
- Their basic responsibilities and functions
- Key types of SAR plans and planning processes; and
- Use of available resources and how to improve the system

More information on these functions are provided in sections 5.1.

#### **1.6 The Global Concept - National and Regional Systems**

The Cayman Islands should develop a SAR system based on multilateral, regional or national plans, agreements, etc. A national SAR Plan ensures provision of the following:

- Effective use of all available resources for SAR
- Delineation of Search Rescue Regions (SRRs)
- Description of relationships between parties
- Discussion of how higher level conventions, plans, agreements etc. will be implemented and supported.

## 1. General System Concept (IAMSAR Manual 1 Chapter 1)

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

| Issues raised during site visit |  | Solution linked to IAMSAR Manual Chapter 2 | IAMSAR Manual 1 Chapter 6<br>Improving Systems – benefits?                   | Suggested Owner                      | Estimated Timescale | Estimated Cost in CI \$ |
|---------------------------------|--|--|--|--------------------------------------|---------------------|-------------------------|
| 1.3.1                           | SAR Convention (1979) not extended to Cayman Islands | Consider extension of the convention       | Improved cooperation between aeronautical, maritime and land SAR communities | Strategic SAR Coordinating Committee | 5+ years            | See notes               |

## **System Components (IAMSAR Manual 1 Chapter 2)**

### **2.1 SAR as a System**

The SAR system has individual components which work together providing the overall service. This includes the establishment of a Search and Rescue Region (SRR), along with the capability to receive alerts and to coordinate SAR services through an associated Rescue Coordination Centre (RCC). The primary system components are

- Communications throughout the SRR and with external SAR services
- A RCC for the coordination of SAR services
- SAR facilities, including Search and Rescue Units (SRUs) with specialised equipment and trained personnel, as well as other resources that can be used to conduct SAR operations

### **2.2 Communications**

Communications are essential in providing the coordinating authority with alerting information permitting the dispatch of SRUs and other resources to a search area without delay while maintaining two way communications with the persons in distress. Section 4 provides more information on general communications capability and equipment.

#### **2.2.1 Dedicated Search Mission Coordinator in the JMU 24 hours/day**

Alerting includes any facility involved in receiving information about an apparent distress situation and relaying to the coordinating authority, as the ability to act quickly and effectively when an emergency occurs depends largely on the alerting post being well qualified to carry out its responsibilities.

Currently, the majority of distress calls are received via emergency calls handled by the Department of Public Safety Communications or via radio transmissions handled by the Port Authority. Call handlers are equipped with Standard Operating and SAR guides to support appropriate and timely information gathering, but without SAR specific training. This disconnect between the alerting post and the RCIPS as the coordinating authority results in a lack of prioritising actions and a delay in the SAR response until a suitably qualified Critical Incident Manager or air / marine unit commander is available to attend.

*2.2.1 It is recommended to investigate the feasibility of providing 24/7 availability of personnel qualified to fulfil the function of a Search and Rescue Mission Coordinator (SMC). As this is a temporary function, this may be performed by the unit commander or designated officer and should not require additional headcount. This role can be undertaken on a rotating basis so that competence in all areas is not lost.*

## **2.3 Rescue Coordination Centre**

A Rescue Coordination Centre (RCC) is an operational facility responsible for promoting efficient organisation of SAR services and for coordination of the conduct of SAR Operations within a SRR. The Chicago and SAR Conventions require the provision of a RCC. As outlined in Part 1, there is no single Maritime Rescue Coordination Centre (MRCC) in existence and the coordination of an incident involves different departments and is handled from multiple locations as the incident progresses.

### **2.3.1 Meet the requirements of an RCC**

*It is recommended to investigate the feasibility of developing the operations room of the JMU base to establish a RCC able to meet the minimal requirements as set out in IAMSAR Manual 1 Chapter 2 Section 2.3.8. This should include 24/7 availability of personnel qualified to fulfil the function of a Search and Rescue Mission Coordinator (SMC) as outlined above.*

### **Plans of Operation**

Operational SAR units lack standard operating procedures, policies and protocols. Although these have been in existence previously, the majority of this information has been lost due to a server defect resulting in loss of data. JMU and AOU are trying to re-establish these procedures but lack guidance and resources to take this forward.

### **2.3.2 UK to provide access to Operational management System**

*It is recommended to provide the RCIPS with information about and access to the MCA's Operational management System to assist and support the RCIPS to establish relevant SOPs, policies and procedures.*

An aviation SAR Plan as required by ICAO Annex 12 exists in draft format (Draft Release 3 - November 2016) with no maritime SAR plan in existence.

### **2.3.3 Develop plans of operation**

*It is recommended to adapt the aviation plan either as a combined aviation / maritime SAR plan or to create a separate maritime SAR plan following the same structure in order to cover all likely emergency scenarios within the Search and Rescue Region. This task could be delegated to a SAR working group.*

### **2.3.4 Agree and declare SRR Provisional Search Rescue Region**

A SAR system involves the establishment of a Search and Rescue Region (SRR) along with capabilities to receive alerts and provide and coordinate SAR services, aligned to a Rescue Coordination Centre (RCC).



The latest Global SAR Plan (IMO SAR.8/Circ.4, 01 Dec 2012 Annex 4), publicises the Cayman Islands SRR as provisional with no declared information about the coordination or available SAR assets as required by COMSAR.1/Circ.52. Other publications, such as the Admiralty List of Radio Signals, 2016 Edition, Volume 5, designate the RCIPS as coordinating authority. The maritime SRR differs significantly from the aeronautical SRR which is aligned with the Flight Information Region and falls under the responsibility of Kingston / Jamaica.

*2.3.4 It is recommended to agree and officially declare the SRR to the International Maritime Organisation through the UK to satisfy international requirements and expectations, avoid confusion and establish an area of SAR responsibility.*

## **2.4 SAR facilities - Rescue Vessel Provision**

SAR facilities include designated SRUs and other resources which can be used to conduct or support SAR operations. A SRU is a unit composed of trained personnel provided with suitable equipment for the expeditious and efficient conduct of SAR operations.

With reference to Part 1 of this report, currently only two of the JMU vessels are serviceable with both long range vessels decommissioned or out of service. The remaining two serviceable crafts are RHIBs only suitable for inshore response.

Given the size of the Search and Rescue Region, the limited number of assets available in the region and the lack of formal agreements with neighbouring countries or the US Coastguard in connection with the risks, including a high number of cruise vessels, migrant traffic and the marine industry including fishing and inter island traffic, the current provision of vessels is insufficient to provide an effective SAR response. A current business case by the RCIPS outlines options to re-instate an offshore SAR capability.

### **2.4.1 Re-commission/ Refit offshore vessel**

*Within the survey report, costings and timescales are provided, the following options are recommended:*

*Option 1: Repair 'Guardian'. According to the recent survey conducted, the vessel design is not suitable for offshore SAR and in addition suffers from major structural damage due to its design. The survey concludes that a repair would be uneconomical and requires the vessel to be taken off the island for a considerable time and therefore this course of action would not provide an offshore SAR capability within the next 12 months.*

*Option 2: Refit 'Protector'. This would re-establish a suitable offshore capability within 6 months at an estimated cost of \$400,000 and provide the opportunity for agencies involved in the JMU to agree on common requirements and specifications for the purchase of a future multi-purpose offshore patrol vessel within 5 years.*

*Option 3: Source and purchase a multi-purpose patrol vessel. This would re-establish a suitable offshore capability within 12 months with costs ranging between \$2m and \$4.8m, but limit the opportunity to source a vessel fulfilling common requirements of all agencies within the JMU or to investigate and profit from synergies working with other Overseas Territories for a common platform.*

*Option 4: Do nothing. This would severely compromise offshore SAR provision and make the JMU completely dependent on the good will of secondary SAR assets, assistance from neighbouring countries or the US Coastguard in addition to risking the safety of staff utilising inshore craft for offshore SAR in adverse weather and sea conditions. Further risks following this option are the risk of avoidable loss of life at sea, non-compliance with international regulations and the reputational damage to The Cayman Islands as a whole.*

#### Pricing advice

*Without undertaking a formal procurement process we cannot accurately estimate the costs for the refit of the mentioned vessels and procurement of the proposed jet skis. However estimated costs were provided by the Joint Marine Unit in their business case and as such have been included.*

The inshore assets are currently located at the JMU base have to be moved by trailer to a suitable launching spot for incidents on the opposite side of the island. This incurs a long transit to some incident locations. The Cayman Islands Fire Service presented an option to purchase wave runners at a low cost to assist the inshore response concerns with the additional benefit of the dispersed locations of fire stations across the island and the 24/7 availability of trained personnel. This proposal would significantly reduce response time as well as the burden on the RCIPS as sole provider of marine assets. It would also allow the RCIPS to reduce the numbers to three inshore craft with increased serviceability as outlined in the business case.

#### **2.4.2 Review Inshore Response and feasibility of wave runner / Jet Ski**

*It is recommended to explore the option of providing an inshore SAR facility through the Cayman Islands Fire Service as a high priority.*

#### Pricing advice

*Without undertaking a formal procurement process we cannot accurately estimate the costs for the refit of the mentioned vessels and procurement of the proposed jet skis or rigid inflatable rescue boats. However estimated costs were provided by the Joint Marine Unit in their business case and as such have been included.*

#### **2.5 Support Facilities - Search Planning Software**

Search planning is currently provided by some staff of the JMU and AOU. This is done in a time consuming way by basic plotting of drift models on paper charts and depends on staff having received training in recent years. If further assistance is required, this is usually provided by the US Coastguard when requested by the RCIPS.

### **2.5.1 Obtain computer resources search planning software for JMU and AOU**

*It is recommended to investigate electronic search planning software available on the market to reduce planning (and therefore response) time, free up staff for coordination, communication and response, reduce the potential for errors due to manual calculation and remove the dependency on the US Coastguard to obtain search plans.*

#### **Pricing advice**

*Without undertaking a formal procurement process we cannot accurately estimate the costs for obtaining search planning software. As a rough guide the costs to set up in the United Kingdom have been considered and a rough estimate based on the reduced number of terminals and reduced requirements has been included.*

## 2. System Components (IAMSAR Manual 1 Chapter 2):

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

| Issues raised during site visit |   | Solution linked to IAMSAR Manual Chapter 2   | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?  | Suggested Owner                        | Estimated Timescale | Estimated Cost in CI \$                     |
|---------------------------------|---|--|--|--|---------------------|---|
| 2.2.1                           | Lack of prioritisation of action/response   | Dedicated Search Mission Coordinator in the JMU 24 hours/day. Dependant on actions | Improved communications, 24 hour trained search mission coordination. Supports progression towards meeting international requirements for an RCC                                 | SAR Strategic Committee                | 1 -3 years          | Within current complement                   |
| 2.3.1                           | Limited coordination capability not available 24 hours. Delays in setting up coordination and responding from JMU base and deploy as staff requires to draw equipment before attending. | Meet the requirements of an RCC once training and 24 hour needs are addressed      | 24 hour trained search mission coordination. Supports progression towards meeting international requirements for an RCC  | SAR Strategic Committee                | 3 – 5 years         | Within current complement                   |
| 2.3.2                           | No plans of operation – Standard Operating Procedures   | UK to provide access to Operational management System                              | To assist with the development of plans of operations  | Joint Marine Unit/ Air Operations Unit | 0-3 months          | Not financial                               |
| 2.3.3                           | No plans of operation - SAR Plans   | Develop plans of operation   | Meet the requirements of applicable international SAR manuals<br>Cover all emergency scenarios likely to occur in the SRR  | SAR Working Group                      | 0- 12 months        | Not financial                               |
| 2.3.4                           | Provisional Search Rescue Region (SRR)  | Agree and declare SRR  | Define who has primary responsibility for coordinating distress situations in every area of the world and to enable rapid distribution of distress alerts to the appropriate RCC | SAR Strategic Committee                | 1 -3 years          | Not financial                               |
| 2.4.1                           | Lack of SAR facilities - No offshore rescue vessel provision (long range seagoing craft)  | Re-commission/ Refit offshore vessel   | Offshore SAR capability  | Home Office                            | 0- 12 months        | \$400,000                                   |
| 2.4.2                           | Lack of SAR facilities - Limited inshore rescue vessel provision (Inshore craft)  | Safe Boats Refit   | Inshore capability   | Home Office                            | 0- 12 months        | \$200,000                                   |
| 2.4.2                           | Lack of SAR facilities - Limited inshore rescue vessel provision (Close Inshore craft)  | Review Inshore Response and feasibility of wave runner / jet ski                   | Inshore Capability, review of geographic dispersion to ensure optimal placement of SAR assets  | SAR Working Group                      | 0- 12 months        | See notes                                   |
| 2.5.1                           | Lack of support facilities - Search planning software   | Obtain computer resources search planning software for JMU and AOU                 | Would save time, reduce the computational burden, reduce the potential for errors.   | Home Office                            | 0- 12 months        | \$2000 upfront<br>\$1500/ month maintenance |

## **Training, Qualification, Certification and Exercises (IAMSAR Manual 1 Chapter 3)**

### **3.1 Building Professionalism – Training, Qualification and Certification**

Training is critical to performance and safety in order to save those in distress while reducing risk to and ensure future availability of SAR personnel and SRUs. SAR operations require considerable experience and judgement, with the quality of performance during SAR operations matching the quality of training received. To ensure professionalism and performance, efforts need to extend to career development actions, assignment to SAR duties for a sufficient period and using the gained experience in future assignments. To achieve this requires:

- Position definition – functions and tasks of a position are defined
- Skill definition – skills and personal characteristics needed by the person are defined
- Matching qualifications – abilities are compared to the position requirements
- Performance evaluation – clear position objectives
- Training qualification and certification – qualification achieving skills certification acknowledges competence
- Continuing development

The JMU and AOU are designated frontline units to provide SAR services. The JMU is currently more than 50% below complement in comparison with its original design and setup with only 12 officers. Some staff within the units have previous SAR experience or training from previous occupations and some training has been delivered on an ad-hoc basis over the last few years by the US Coast Guard and the Royal Navy when in the area (e.g. boat handling or basic search planning). This leads to a constant demand to draw on those individual's expertise during SAR operations, notwithstanding whether they are on or off duty and relying on their willingness to assist.

A lack of a clear definition of the unit's roles and responsibilities in the SAR function is reflected in the lack of a competency framework clearly defining SAR related essential competencies and the lack of a training programme to achieve and maintain those competencies. This issue is directly linked to and further compounded by the practice of recruiting staff into the general police service instead of a specific specialist function within the service, the lack of career progression plans and opportunities within the units and the lack of continuous professional development opportunities.

#### **3.1.1 Position and Skill Definition: SAR Competency Framework Developed**

*It is recommended to develop a professional and technical skills competency framework, outlining role specific required competencies and levels relating to SAR functions for all roles within the units. To assist this process, it should be considered*

*to contact HM Coastguard to provide the organisations civil service competency framework as well as the coastguard technical competencies framework for reference.*

### **3.1.2 Develop/ implement a SAR Maritime Career Progression Development Plan**

*It is recommended to develop a career progression development plan in order to retain SAR experience and training within the AOU and JMU, reduce risks to personnel and ensure sustained availability of both units for SAR operations.*

### **3.1.3 Ensure a Performance Evaluation Process is in place**

*Once the required competencies and levels are agreed, it is recommended to develop a performance evaluation process to ensure required competency levels are achieved and maintained by all staff.*

### **3.1.4 Matching qualifications: Undertake a targeted local recruitment campaign**

*Once the required competencies and levels are agreed, it is recommended to investigate the feasibility to carry out targeted local recruitment for JMU staff based on required competencies and levels to increase staffing to full complement.*

#### Pricing advice

*The Marine Unit Strategic Plan in 2006 recommended 3 shifts deployed on a 24 hour cover basis. It was approved that the staff complement on completion of the successful procurement was to increase to thirty five trained personnel.*

### **3.1.5 Training and increased funding for the in house maintenance of vessels**

#### Pricing Advice

Without undertaking a formal procurement process we cannot accurately estimate the costs for the effective maintenance of vessels. The current budget for maintenance of vessels is \$270,000.

It is recommended to investigate the feasibility of outsourcing maintenance of JMU assets to a civilian contractor to guarantee maintenance staff has the correct skill set to carry out the works and increase availability of assets. As an additional benefit, this would free up JMU to concentrate on SAR and other core JMU functions.

## **3.2 Training Specifics**

SAR specialists, require training as individuals or to integrate within teams. This training must be based on a training needs analysis comparing actual performance with required performance and competency. Based on this analysis, training needs and methods to overcome the deficiencies can be identified and addressed.

Training to AOU and JMU staff has been delivered on an ad-hoc basis over the last few years by the US Coast Guard and the Royal Navy when available and in the area (e.g. boat handling or basic search planning). There is currently no formal training programme for SAR specific skills in place and training of unit staff is carried out as on the job training by personnel who have received previous training or maintained skills from previous occupations.

Formal SAR training should include organisational (SAR organisation, relation to other services, agreements, asset capabilities and limitations, legal aspects), procedural (evaluation, alerting, interpretation of information, determination of search areas, search techniques, communications and rescue procedures), administrative (routine and reporting) and informative (familiarisation and exercising) training. Formal training should also include other topics, if search planning skills, knowledge and expertise gained from formal training, are not used on a regular basis for operations or exercises, then periodic recurrent training must be implemented to ensure reliable and effective delivery of SAR services. A comprehensive list of subject matters to be included is contained in IAMSAR Manual 1 Chapter 3.

### **3.2.1 Training Packages for training, qualification and certification**

*It is recommended to establish training packages for training, qualification and certification of staff involved in SAR operations for individuals and teams, based on required competencies and levels, actual and desired performance and include a variety of methods to address individual needs.*

### **3.2.2 Contact HM Coastguard for development advice on and existing examples of training packages**

*To assist the development of training packages, it should be considered to contact HM Coastguard for advice on development of SAR training and provision of existing examples of training packages.*

### **3.2.3 Set up a SAR training calendar**

*It is recommended to set up a SAR training calendar, both internally within the RCIPS as well as externally via the SAR working group with other organisations and bodies involved in the provision of SAR services.*

### **3.2.4 Contact US Coast Guard / HM Coastguard / Royal Navy for training opportunities**

*It is recommended to liaise with HM Coastguard, US Coast Guard and the Royal Navy to establish training opportunities.*

### **Pricing Advice**



Without undertaking a formal procurement process we cannot accurately estimate the costs for training. Included in the Joint Marine Unit Business Case is the estimated costs for training to be \$100,000. This figure has been included for reference.

### **3.2.5 Contact RNLI for training opportunities**

*It is recommended to liaise with the international training and development department of the Royal National Lifeboat Institute (RNLI) to establish training opportunities.*

## **3.3 Exercises**

Exercises test and improve operational plans, provide learning experience and improve liaison and coordination skills. Exercises, conducted on a regular basis, also help to demonstrate and assess the effectiveness of training and the operational efficiency and competence of SAR provision. Exercises range from simple communication exercises to table top scenarios based coordination exercises and full scale or field exercises.

Although the AOU and JMU carry out exercises and has in the past attended exercises by other emergency services (e.g. airport incident exercise run by the Fire Service), these depend on the operational workload and availability of staff and assets. There is no formal SAR exercise programme in place, either internally within the RCIPS or externally in cooperation with other organisations or bodies providing SAR services and there is no structured system in place for planning, execution and evaluation of exercises.

### **3.3.1 Set up a SAR exercise programme / calendar**

*It is recommended to establish a formal programme of regular SAR exercises for units to exercise individually and in cooperation with other units with clearly defined exercise aims and objectives.*

### **3.3.2 Undertake exercises**

*It is recommended for the SCC working group to establish a formal SAR exercise programme and calendar to ensure regular SAR exercises with multi-agency involvement are carried out with agreed aim and objectives.*



### 3. Training, Qualification, Certification and Exercises (IAMSAR Manual 1 Chapter 3):

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

| Issues raised during site visit                             | Solution linked to IAMSAR Manual Chapter 3   | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?   | Suggested Owner                    | Estimated Timescale | Estimated Cost in CI\$ |
|---|--|---|------------------------------------|---------------------|------------------------|
| 3.1.1 SAR roles and responsibilities undefined              | Position and Skill Definition: SAR Competency Framework Developed                          | Precise identification of functions and task of a position enable clear definition of requirements                                      | SAR Working Group                  | 0- 12 months        | Not financial          |
| 3.1.2 SAR roles and responsibilities undefined              | Develop/ implement a SAR Maritime Career Progression Development Plan                      | Progression opportunities increases interest in the role and reduces staff turnover   | SAR Working Group                  | 1 -3 years          | Not financial          |
| 3.1.3 No ongoing professional development                   | Ensure a Performance Evaluation Process is in place  | Clear objectives enable better assessment of staff performance  | SAR Working Group                  | 1 -3 years          | Not financial          |
| 3.1.4 Joint Marine Unit understaffed                        | Matching qualifications: Undertake a targeted local recruitment campaign                   | Candidates abilities can be compared to well defined position requirements  | Home Office                        | 0- 12 months        | Not financial          |
| 3.1.5 Inappropriate skill set for role – Maintenance        | Training and increased funding for in house maintenance of vessels                         | Increased funding for the maintenance of vessels free up police resource for SAR  | Home Office                        | 1 -3 years          | \$270,000<br>See notes |
| 3.2.1 No formal training programme                          | Training Packages for training, qualification and certification                            | Training increases competence, qualification confirms achievement of required competence, certification acknowledges overall competence | Joint Marine Unit /Human Resources | 1 -3 years          | Not financial          |
| 3.2.2 No formal training programme                          | Contact HM Coastguard for development advice on and existing examples of training packages | Advice gained and existing examples provided will assist with creating bespoke training packages  | Joint Marine Unit                  | 0-3 months          | Not financial          |
| 3.2.3 No formal training programme                          | Set up a SAR training calendar   | To make the most effective use of time to increase capability   | SAR Working Group                  | 0- 12 months        | Not financial          |
| 3.2.4 No formal operational training packages               | Contact US Coast Guard / HM Coastguard / Royal Navy for training opportunities             | International cooperation through training and exercises to improve SAR services  | Joint Marine Unit                  | 0- 12 months        | \$70,000<br>See notes  |
| 3.2.5 No formal operational training packages               | Contact RNLI for training opportunities  | International cooperation through training and exercises to improve SAR services  | Governor's Office                  | 0- 12 months        | \$30,000<br>See notes  |
| 3.3.1 No formal exercise programme                          | Set up a SAR exercise programme / calendar   | To make the most effective use of time to increase capability   | SAR Working Group                  | 0- 12 months        | Not financial          |
| 3.3.2 No regular exercises undertaken between SAR providers | Undertake exercises  | Test and improve operational plans, provide learning  | SAR Working Group                  | 1 -3 years          | Not financial          |

|  |  |   |  |  |  |
|--|--|---|--|--|--|
|  |  | experience and improve liaison<br>and coordination skills |  |  |  |
|--|--|---|--|--|--|

## **4.1 Communications (IAMSAR Manual 1 Chapter 4)**

### **4.2 Basic Function Requirements**

Communications support distress alerting, coordination and locating functions by allowing those in distress to alert the SAR system, the SAR system to respond and conduct its mission; and survivors to help SAR units respond and conduct a rescue.

#### **4.2.1 RMS CAD access for JMU and AOU**

*It is recommended to make CAD and RMS available to the AOU and JMU in order to have real time access to the same information as the emergency call handler to ensure a timely and effective response while reducing the requirement to pass information via telephone or radio.*

*According to the Department for Public Safety Communications, this can be achieved through a web interface which allows staff at the AOU/JMU to see the information entered with no inputting functionality. Alternatively, a license for the full version, which also allows entering of information is estimated at a cost of approximately CI\$ 1,000.*

#### Pricing advice

The RMS CAD access for the JMU and the AOU would cost \$1000 x 2 licenses. However if existing licenses are investigated and found not to be utilised then the licenses could be redistributed at no extra cost.

### **4.3 Important Factors for SAR Communications – Interoperability**

Communications must be able to take place reliably and quickly between persons in distress and the SAR system as well as between individual components of the SAR system to ensure timeliness and quality of information between callers and responders.

The current process for distress alerting is either to the emergency call handler directly or, in case of the use of VHF radio communications, via the Port Authority to the emergency call handler. The information received is then input into the Computer Aided Dispatch system which then drops data into the Record Management System (RMS) used by the RCIPS and Department for public Safety Communication.

All subsequent information is then equally logged in these systems. At this time, neither the AOU nor the JMU have access to the system and completely rely on voice communication to obtain information. This process has the potential for delaying a SAR response as well as carrying the danger of having incomplete or outdated information available to key decision makers and responding units.

#### **4.3.1 Land Based Infrastructure – SAR Communications Framework**

Communications to and from a coordinating authority with a mobile facility or SRU should be direct, reliable and ideally using a dedicated line or frequency.

Currently, the only communication links between the JMU base (RCC) and the SRUs are via VHF radio and mobile telephone communications. An encrypted MF single side band radio for long range communications is installed in the operations room at the JMU base, however due to issues with the aerial this is currently unserviceable.

*4.3.1 It is recommended to investigate the technical issues with the MF radio and aerial and rectify the fault in order to ensure secure and reliable long range communications with SRUs outside VHF and mobile phone range.*

#### Pricing advice

*This is a fix of the current capability and is being investigated by the Joint Marine Unit*

### **4.3.2 Establish MOU on communications process with US Coast Guard**

Communications used amongst SAR facilities depend upon local arrangements, the structure of SAR services within and with neighbouring SRRs. This includes advance international agreements if more than one state responds to a distress situation. It is operationally important to obtain authority for their RCC to directly respond to requests from another RCC. Related communications should be routed directly to the RCC rather than via diplomatic channels.

Due to the geographic proximity of the United States as well as the limited availability of SAR assets from neighbouring nations, the RCIPS has established a good working relationship with the US Coastguard. Any requests for assistance are currently channelled via the US Coast Guard Attaché to Jamaica and the Cayman Islands based at the US Embassy in Kingston, Jamaica, who then forwards the request to RCC Miami (7<sup>th</sup> District). This channel of communications risks significant delays in notifying the relevant RCC in consequence might delay the provision of any assistance.

*4.3.2 It is recommended to establish a memorandum of understanding between the RCIPS and the US Coastguard to formalise a direct 24/7 communication channel between the coordinating authority in the Cayman Islands and the RCC Miami to increase timeliness of response to a distress situation.*

### **4.4 Social Media**

Social media is not part of the international distress alerting system and is not monitored as a primary means of distress notification. However the public uses social media to create online communities to share information, ideas, personal messages and other content. This can raise public expectation that SAR authorities, especially for prolonged SAR incidences with news media interest, should either

provide information or to accept information from social media sites. The Cayman Islands should have a procedure in place for the efficient management of social media.

#### **4.4.1 Procedure for Social Media Handling**

*Consider putting in place a procedure for the monitoring, handling and using of social media during SAR operations to ensure the public is provided with official updates and correct information about ongoing SAR operations as well as any relevant information that might be used for a successful conclusion of a SAR operations is collected. This should include guidance and direction for staff on the use of social media.*

#### 4. Communications (IAMSAR Manual 1 Chapter 4)

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

|       | Issues raised during site visit  | Solution linked to IAMSAR Manual Chapter                  | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?   | Suggested Owner         | Estimated Timescale | Estimated Cost   |
|-------|--|---|---|-------------------------|---------------------|--|
| 4.2.1 | Lack of interoperability - RMS CAD not shared with operations  | RMS CAD access for JMU and AOU                            | Ensures that the operational officers have access to the received alert information. Reduces response time  | Home Office             | 0-3 months          | \$1000 x 2 licenses or redistribution of existing licenses |
| 4.3.1 | Long range communications not working – Medium Frequency   | Long Range Communications - fix existing                  | Increased communications range increasing SAR capability, reducing response time.                           | Home Office             | 0-3 months          | See notes  |
| 4.3.2 | There is no formal process for communications with the US Coast Guard. (Although it should be noted that a good working relationship exists within both the JMU and AOU) | Explore MOU on communications process with US Coast Guard | Improved communications process may lead to quicker support and potentially reduced response time           | SAR Strategic Committee | 0-3 months          | Not financial  |
| 4.4.1 | Managing expectations from public perception   | Procedure for Social Media Handling                       | Ensure the public are aware of the facts to avoid misunderstanding. Provides direction to operational staff | SAR Strategic Committee | 0- 12 months        | Not financial  |

## **System Management (IAMSAR Manual 1 Chapter 5)**

### **5.1 Understanding the SAR System – Assessing National Needs**

Each state should assess its own responsibilities and requirements to evaluate its abilities as a SAR service provider for national needs, to identify areas for improvement and to assist SAR managers.

The Cayman Islands have clearly identified their international responsibilities regarding the provision of SAR services and delegated the responsibility to the Cayman Islands Maritime Authority. However, beyond this there is no legal framework in place, and de facto maritime SAR has been delegated to the RCIPS with the AOU and JMU in addition to other police and law enforcement functions. Other agencies involved are the Cayman Islands Fire Service, Her Majesty's Customs and the Department of Public Safety Communications. Consultation with a wide range of stakeholders identified a common theme in the lack of a clear remit for SAR, outlining roles, responsibilities and expectations on SAR providers.

### **5.2 Organisation – Maximising system effectiveness and benefits**

Effective SAR consists of more elements than the response to persons in distress. For the SAR system to realise maximum effectiveness, the preventative SAR elements are of particular importance and should include activities aimed at the prevention and mitigation of SAR incidents including patrols, supervision of events, safety inspections and public awareness campaigns.

#### **5.2.1 Emergency services safety education campaign**

*It is recommended to establish a joint emergency services safety education campaign using traditional and social media as well as a programme of visits to schools and other establishments to consistently promulgate important safety messages.*

#### **5.2.2 Review process for passage plan / float plan**

*It is recommended to introduce a passage / float plan system for local non-commercial and leisure vessels to enable early alerting in case of an overdue or missing craft, ensure an effective and timely SAR response and provide essential information to responders.*

#### **5.2.3 Safety/survival equipment rules or guidelines**

It should be considered to investigate the promulgation of guidelines for the carriage of safety and survival equipment for non-commercial and leisure vessels

#### **Pricing advice**

This is not a quick fix and cannot be easily costed without the detail being agreed. This should be part of the Search and Rescue Working Groups medium term considerations. The detail and approach should be agreed by the Cayman Islands

leads. However there are UK programme initiatives and documents on this matter and advice if requested would be willingly shared.

#### **5.2.4 Consider age training qualification requirements for boat captains**

It should be considered to investigate the introduction of minimum age limits and training qualifications for boat captains, particularly if vessels are used commercially for diving operations or tourist tours.

It should be considered to investigate whether the current enforcement and inspection regime is sufficient for commercial vessels and whether this should be extended to non-commercial or leisure craft.

#### **5.2.5 Enforcement Inspection Regime**

It should be considered to investigate the use of no swim zones in areas heavily frequented by commercial or leisure traffic.

#### **5.2.6 No swim zone at the Harbour**

It should be considered to develop a safety programme including warning signage at hazardous areas and the provision of life rings / buoys.

#### **5.2.7 - 5.2.9 Develop Safety Programme, warning signage, life rings, lifeguards, use of life jackets**

It should be considered to investigate the benefits of providing life guard services at heavily frequented beach areas. It should be considered to review the number, location, condition and effectiveness of existing navigation marks in comparison to the possible risk due to insufficient marking of channels and approaches.

#### **Pricing advice**

This activity could be monitored through the SAR Working Group. The SAR Working Group could assign this to one or more of their operational representatives. Costings if additional navigation marks are required would be included as part of the project.

### **5.3 Resources**

The primary resource of a SAR organization are the operational facilities made available to it by various authorities. As these resources are limited, every effort should be made to use existing facilities to the fullest extent possible, taking into account the use of other non-designated and not full time units, such as volunteer or auxiliary organisations. By providing training and equipment and integrating all facilities, an efficient SAR service can be set up by reducing the requirement for or in support of designated SAR units.



Due to the limited resources available at this time, the RCIPS already makes use of commercial vessels and leisure craft in support of SAR operations. As designated offshore vessels are unserviceable and will require a considerable time to be replaced or brought back into service, it is essential for the future success of SAR operations to explore the use of secondary resources in more detail.

#### **5.3.1 Operation leads bring contacts for asset skills register**

*It is recommended to designate an operational lead in the RCIPS to explore the use of secondary resources in support of SAR operations and collate contacts to create a skills and asset register. This register should be made available to the SAR Mission Coordinator to provide the best possible response to conduct successful SAR operations.*

### **5.4 Dealing with the Media**

Managing media affairs is an important element of SAR operations and should be considered as an integral part of the system, being given appropriate consideration and planning. Not providing accurate and timely information risks the media using alternative sources which may lead to incorrect or misleading information being released undermining the SAR systems credibility and leading to undue public concern.

#### **5.4.1 Joint media strategy: overarching concept in detail**

*It is recommended for the strategic SCC to establish a joint media strategy to manage media affairs during and in the aftermath of SAR operations to ensure public confidence in the SAR system and manage public expectations.*

## 5. System Management (IAMSAR Manual 1 Chapter 5):

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

|       | Issues raised during site visit  | Solution linked to IAMSAR Manual Chapter   | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?   | Suggested Owner         | Estimated Timescale | Estimated Cost |
|-------|--|--|---|-------------------------|---------------------|----------------|
| 5.2.1 | Inconsistency of approach to the emergency services prevention campaign                              | Emergency services safety education campaign   | Raising awareness of safety on the coastline will potentially prevent SAR incidents                             | SAR Working Group       | 1 -3 years          | Not financial  |
| 5.2.2 | Vessels do not report whereabouts  | Review process for passage plan / float plan   | An easy to use float plan might encourage vessels to report float plan to assist in any potential SAR situation | SAR Working Group       | 0- 12 months        | Not financial  |
| 5.2.3 | There are no rules or guidelines requiring or advising on the provision of safety/survival equipment | Safety/survival equipment rules or guidelines  | Develop common equipment, facilities and procedures as appropriate  | SAR Strategic Committee | 3-5 years           | See notes      |
| 5.2.4 | Lack of a safety culture on the island for vessels   | Consider age training qualification requirements for boat captains                     | Increased safety culture can potentially reduce the number of incidents   | SAR Working Group       | 1 -3 years          | Not financial  |
| 5.2.5 | There are limited enforcement activities   | Enforcement Inspection Regime  | Develop and implement SAR requirements and standards  | SAR Strategic Committee | 3-5 years           | Not financial  |
| 5.2.6 | Swimming in the Harbour with cruise ships and tenders coming in and out                              | No swim zone at the Harbour  | Prevention activities can potentially reduce the number of incidents  | SAR Working Group       | 1 -3 years          | Not financial  |
| 5.2.7 | Lack of a safety culture – signage and equipment   | Develop Safety Programme, warning signage, life rings, lifeguards, use of life jackets | Prevention activities can potentially reduce the number of incidents  | SAR Working Group       | 1 -3 years          | See notes      |
| 5.2.8 | Lack of a safety culture – life guard services   | Develop Safety Programme, warning signage, life rings, lifeguards, use of life jackets | Prevention activities can potentially reduce the number of incidents  | SAR Working Group       | 1 -3 years          | See notes      |
| 5.2.9 | Navigation marks not all in place  | Review location and plan for maintenance of Navigation Marks                           | Prevention activities can potentially reduce the number of incidents  | SAR Working Group       | 1 -3 years          | See notes      |
| 5.3.1 | Available resources not being utilised   | Operation leads bring contacts for asset skills register                               | Increase availability of additional experience capable resources  | SAR Working Group       | 0- 12 months        | Not financial  |
| 5.4.1 | Managing expectation from public perception  | Joint media strategy: overarching concept in detail                                    | Assign and coordinate SAR Responsibilities  | SAR Strategic Committee | 1 -3 years          | Not financial  |

## **Improving Services (IAMSAR Manual Volume 1 Chapter 6)**

SAR systems are complex and evolving while resources to ensure successful responses to incidents are limited. It is crucial to identify resources, either designated SAR resources or other resources available through cooperative arrangements, and to ensure that these resources are being used to their full potential to support or carry out SAR operations. The following sections are aimed to support these principles.

### **6.1 Applying Risk Management**

Risk management principles are used in the emergency management community to minimise uncertainties in potentially hazardous situations and to maximise public safety. Following the principles of preparedness, response and recovery, risk analysis is a tool to set organisational priorities.

#### **6.1.1 Set up a risk management process**

*It is recommended to set up a risk management process in accordance with IAMSAR Manual 1 Appendix L to minimise risk to SAR providers and maximising public safety and the efficiency of the SAR response.*

### **6.2 Cooperating to Improve Services**

#### **6.2.1 Strategic SAR Coordination Committee**

An effective way to improve SAR coordination is the establishment and use of SAR Coordinating Committees (SCCs) at different levels. A national or strategic SCC is aimed to provide strategic focus on areas the members share in common and used for implementation of high level plans and goals which apply to multiple members in order to ensure continuous improvement of the SAR system through:

- Development and recommendation of national strategic policy to the government
- Provision of a standing forum for coordination of administrative and operational SAR matters
- Develop plans and policies to resolve cross-agency jurisdictional issues, develop joint solutions for SAR matters of concern, assign and coordinate SAR responsibilities and develop and implement SAR requirements and standards
- Effectively use all available resources for SAR including global regional, national, private, commercial and volunteer resources
- Develop common equipment, facilities and procedures as appropriate
- Promote close cooperation between SAR services
- Serve as cooperative forum to exchange information and develop policies of interest to multiple agencies

- Determine ways to enhance the overall effectiveness of SAR services
- Promote safety programmes to avoid distress situations
- Promote and improve safety to reduce the number of distress incidents in cooperation between authorities
- Improve coordination between aeronautical, maritime and land based SAR authorities and bodies

A strategic SCC should also have the ability to refer matters higher up to government level if required.

*6.2.1 It is recommended for a Strategic SAR Coordination Committee to be set up as a standing forum for the coordination of administrative and operational SAR matters. This committee should be led by the RCIPS in connection with the Maritime and Civil Aviation Authorities as primary responsible agencies for maritime SAR and include strategic representatives from other agencies involved in the provision of SAR, such as Air Traffic Control, Port Authority, Emergency Services (Fire Service, Health Service), Department for Public Safety Communication, Hazard Management Department, etc. The Committee should consider the following recommendations for discussion and decision or referral of the committee's recommendations to higher authority or government level for decision.*

#### **6.2.2 Project Team Lead appointed (Governor's Office can also lead)**

*It is recommended to appoint a project lead or a member of the Governor's office to drive the initial establishment of the SCC in order to establish the forum, maintain strategic focus and ensure progress.*

#### **6.2.3 Draft internal MOUs on roles and responsibilities**

*It is recommended to draft internal memoranda of understanding between services to define roles and responsibilities with regards to the provision of SAR services.*

#### **6.2.4 Develop a cross agency SAR Incident Reporting Process**

*It is recommended to develop a cross-agency SAR incident reporting process and database to include the number of incidents, responses, sorties, lives saved, lives lost, persons otherwise assisted, value of property lost, value of property saved/assisted, property loss prevented and time expended on sorties.*

#### **6.2.5 Establish long term SAR asset requirements**

*It is recommended to establish and agree long term SAR asset requirements, in particular marine assets, bearing in mind other requirements of the services, starting with the business case provided by the JMU with regards to the future of marine assets.*

#### **6.2.6 Provide a standing forum for coordination of administrative and operational SAR Matters**

*It is recommended to establish a standing forum to discuss and agree individual budget requirements related to SAR activities to maximise effect.*

#### **6.2.7 Maritime SAR plan integrated with Aeronautical Plan**

*It is recommended to create an integrated maritime and aeronautical SAR plan to include description of the SRR, description of the available facilities, personnel and equipment, discussion of the SAR personnel training programme, qualification standards and certification procedures, discussion of the roles and responsibilities of all agencies which provide or support SAR services, copy or summary of all agreements with authorities providing facilities and services not under the direct control of the SAR Managers and copy or summary of all agreements regarding mutual assistance with neighbouring RCCs.*

#### **6.2.8 Practical application of chapters 2 and 4 of the SAR Convention**

*It is recommended to discuss and agree on the practical application of the International Convention on Maritime Search and Rescue (SAR), in particular Chapter 2 (Organisation and Coordination) and Chapter 4 (RCCs). It should be considered whether to extend the SAR convention to the Cayman Islands in the long term (refer to consideration 1.3.2.)*

#### **6.2.9 Investigation on the use of volunteer resources**

*It is recommended to investigate the use of volunteer resources to assist the emergency services and supplement their capability. In particular it should be looked at the feasibility to establish a dive response network to supplement SAR operations with specialist skill sets.*

##### Pricing advice

Kate Holden an informed member of the dive community has written a Dive Response Network Proposal. Within her proposal is a costed element of £132,500, this could not be endorsed without further investigation. We would recommend that she along with other representatives potentially drawn from the Focus Group representatives be invited to attend the SAR Working Group to discuss the use of volunteers as a secondary source of support for search and rescue. This paper should be further explored in that forum and proposals presented for the SAR Strategic Committee.

#### **6.2.10 Review of towing arrangements**

*It is recommended to review current towing arrangements considering costs and risks involved in saving property, benefits and methods of estimating the value of saved property, whether abandoning property may introduce other problems such as*

*pollution or hazards to navigation, whether proper facilities, equipment and skill seem to be available to conduct particular salvage operations; need to exercise reasonable care for the sake of safety and minimizing property damage; possible need for available SRUs to handle higher priority duties, advice of SAR personnel on scene who are usually in the best position to assess the situation.*

#### **6.2.11 Consider co-location with 911, SMC and CIM**

*It should be considered to co-locate the SAR Mission Coordinator, Critical Incident Manager and Emergency Call Handler in one location to provide a full RCC function. This might be a long term consideration, weighing up costs and benefits of colocation and evaluating the effectiveness of a 24/7 SMC capability at the JMU base (see recommendation 2.2.1).*

#### **6.2.12 Review of rescue launch areas**

*It is recommended to review launch areas in order to establish current condition, location and feasibility of launch spots and whether they provide sufficient access to the shoreline / sea.*

#### **6.2.13 Operational SAR Coordination Committee – SAR Working Group**

To support the effectiveness of the strategic SCC, an additional SCC can be established at operational level to look at operational requirements to improve SAR response and capability.

*6.2.13 It is recommended to set up an operational level SCC in form of a SAR Working Group including operational representatives from Grand Cayman, Little Cayman and Cayman Brac, the AOU, JMU, Emergency call handling, Fire Service, Emergency Medical Services, Port Authority, HM Customs, Immigration and nominated representatives from the commercial and private sector. This working group should assist the strategic SCC in providing operational advice and guidance and in particular consider the recommendations below.*

#### **6.2.14 Skill and resource register**

*It is recommended designate an operational lead in the RCIPS in consultation with the SAR working group to establish a skill and asset register to utilise secondary SAR resources that can be provided by the commercial and private sector in support of SAR operations in a structured and organised well rather than ad hoc requests.*

#### **6.2.15 Consider developing a Coast Watch Network**

*It should be considered for the operational lead in consultation with the SAR working group to establish the feasibility of a coast watch network to supplement and improve alerting.*



### **6.2.16 Leisure vessel register**

*It should be considered for the operational lead in consultation with the SAR working group to establish a leisure vessel register to maximise the use of secondary SAR resources as well as holding information about vessels to improve the speed of response during SAR operations.*

### **6.2.17 Develop a post incident review process**

*It is recommended to develop a post-incident review process to ensure lessons are learnt and best practice is applied and shared between SAR providers and responders during SAR operations.*

### **6.2.18 Search and rescue an agenda item for Police Commissioners Meeting**

*It is recommended to include a standing SAR agenda item in the OT police Commissioners meetings to enable cooperation, sharing of best practice and avoid duplication of effort. This item should include subtopics regarding training and development of training packages, delivery of training and lessons learnt from exercises, discussions on procurement and administrative considerations, feedback and progress reports of the Strategic operational SCCs. Further advice could be sought on Overseas Territories currently using secondary sources for SAR, especially focussing on volunteers and practical use of other resources.*

## **6.3 Research and Development**

Research and development efforts for SAR should focus on developing data, procedures or equipment that make SAR services more effective, including ways to exploit new and emerging technologies.

### **6.3.1 Drone feasibility study, use of short/long range drones**

*It should be considered to conduct a drone feasibility study to supplement the AOU during SAR operations, investigating the capabilities and limitations of short and long range drones to increase the search capability and availability in the SRR.*

#### Pricing

A local drone provider presented estimated costs of:

Tier 1 - Set up cost \$70,000 set up \$5000 monthly costs

- 2 units with 30 minute flight time
- built in spec to return
- 6 hours of flight time, before recharge

Tier 2 – set up cost \$350,000, monthly cost \$8,500 - 2 Airframes

- 1 mobile ground control station – can fly to another island
- Payload – thermal and HD video
- Up to 8 hour flight time –dependant on weather and speed taken

## 6. Improving Services (IAMSAR Manual 1 Chapter 6):

The identified issues, proposed solutions and benefits under this chapter are indicated in the table.

|        | Issues raised during site visit  | Solution linked to IAMSAR Manual Chapter  | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?                            | Suggested Owner         | Estimated Timescale | Estimated Cost                                 |
|--------|--|---|--|-------------------------|---------------------|--|
| 6.1.1  | Issues have been identified to be addressed for SAR in the Caymans Islands                 | Set up a risk management process Appendix L of IAMSAR Manual 1                          | Determine ways to enhance the overall effectiveness and efficiency of SAR Services | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.1  | Lack of a clear remit for SAR  | Strategic SAR Coordination Committee (SAR Strategic Committee) to be set up             | Determine ways to enhance the overall effectiveness and efficiency of SAR services | Governor's Office       | 0-3 months          | Not financial                                  |
| 6.2.2  | Without oversight the changes might not happen   | Project Team Lead appointed (Governor's Office can also lead)                           | Provide an overview, ensure tasks stay on track and issues are resolved            | Governor's Office       | 0-3 months          | Not Financial if position in Governor's Office |
| 6.2.3  | Lack of roles and responsibilities   | Draft internal MOUs on roles and responsibilities                                       | Assign and coordinate SAR responsibilities   | SAR Strategic Committee | 0- 12 months        | Not financial                                  |
| 6.2.4  | Overlapping statistics for departments for SAR   | Develop a cross agency SAR Incident Reporting Process                                   | Resolve cross-agency jurisdictional issues   | SAR Strategic Committee | 0-3 months          | Not financial                                  |
| 6.2.5  | Lack of planning for SAR Asset long term replacement requirements                          | Establish long term SAR asset requirements  | Effectively use all available resources for SAR including volunteer resources      | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.6  | Budget limitations   | Provide a standing forum for coordination of administrative and operational SAR Matters | Ensure the most effective use of the budget  | SAR Strategic Committee | 0-3 months          | Not financial                                  |
| 6.2.7  | Need for a Maritime SAR Plan   | Maritime SAR plan integrated with Aeronautical Plan                                     | Provides the process for SAR cooperation and coordination                          | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.8  | 1979 International Convention on Maritime Search and Rescue not extended to Cayman Islands | Practical application of chapters 2 and 4 of the SAR Convention                         | Improve cooperation between aeronautical, maritime and land SAR communities        | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.9  | Secondary sources of SAR willing to assist but not currently formally utilised             | Investigation on the use of volunteer resources   | Ability to make effective use of all available resources for SAR                   | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.10 | Managing expectation from public perception  | Review of towing arrangements   | Effectively use all available resources for SAR including private and commercial   | SAR Strategic Committee | 1 -3 years          | Not financial                                  |
| 6.2.11 | Improve the command structure  | Consider co-location with 911, SMC and CIM  | Enhance the overall effectiveness and efficiency of SAR services                   | SAR Strategic Committee | 3-5 years           | See Notes                                      |
| 6.2.12 | Making the most effective use of the Island's geography                                    | Review of rescue launch areas   | Enhance the overall effectiveness and efficiency of SAR services                   | SAR Strategic Committee | 0-12 months         | Not financial                                  |
| 6.2.13 | Need to improve operational planning processes   | SAR Operational Working Group to be set up  | Maintain close liaison with other organizations, share capabilities                | SAR Strategic Committee | 0-3 months          | Not financial                                  |



| Issues raised during site visit |  | Solution linked to IAMSAR Manual Chapter                          | IAMSAR Manual 1 Chapter 6 Improving Systems – benefits?  | Suggested Owner         | Estimated Timescale | Estimated Cost   |
|---------------------------------|--|---|--|-------------------------|---------------------|--|
|                                 |  |   | and ensure capable resource are used timely and effective  |                         |                     |  |
| 6.2.14                          | Secondary sources of SAR willing to assist but not currently formally utilised | Skill and resource register                                       | Maximise use of secondary SAR resources in order to increase availability of experienced and capable assets                | SAR Working Group       | 1 -3 years          | Not financial  |
| 6.2.15                          | Lack of availability of resources, personnel                                   | Consider developing a Coast Watch Network                         | Maximise use of secondary sources of SAR resources   | SAR Working Group       | 1 -3 years          | See notes  |
| 6.2.16                          | Lack of availability of resources, personnel                                   | Leisure vessel register   | Maximise use of secondary SAR resources in order to increase availability of experienced and capable assets                | SAR Working Group       | 1 -3 years          | Not financial  |
| 6.2.17                          | No formal post incident review process   | Develop a post incident review process                            | Review incidents to identify and correct weakness in Alert Phase effectiveness and efficiency                              | SAR Working Group       | 0- 12 months        | Not financial  |
| 6.2.18                          | An overview of OT SAR would be beneficial                                      | Search and rescue an agenda Item for Police Commissioners Meeting | Maintain cross OT awareness, training opportunities, liaison visits, cross OT SAR solutions                                | SAR Strategic Committee | 0-3 months          | Not financial  |
| 6.3.1                           | How to make effective use of emerging technology                               | Drone feasibility study, use of short/long range drones           | Make effective use of emerging technology for SAR, potential reduction of response time and increased search effectiveness | SAR Strategic Committee | 1 -5 years          | Short range<br>\$70,000 set up<br>\$5000 monthly<br>Long range<br>\$350,000<br>\$8,500 monthly |

# **Draft MOU on Roles and Responsibilities**

## **Maritime Search and Rescue**

### **1.1 Introduction**

The [Insert names of national agency] and [Insert names of national agency] hereinafter referred to as the “Parties” to this Agreement, recognize the benefits enjoyed from close cooperation with regard to search and rescue operations and training, and further recognize that additional benefits may be enjoyed from the cooperative arrangements detailed herein; and

The Parties have been recognized by the Cayman Islands Government as having primary responsibility for coordinating and providing aeronautical and maritime SAR services in their respective aeronautical and maritime SAR regions.

The Parties recognize the great importance of cooperation in aeronautical and maritime SAR, and in the provision of expeditious and effective SAR services to save lives and reduce suffering and have assumed their respective responsibilities for SAR within the framework of the International Convention on Maritime Search and Rescue 1979, the Convention on International Civil Aviation, 1944 and the International Aeronautical and Maritime Search and Rescue (Manual)

The Parties have accordingly reached the following understanding.

### **1.2 Objectives and Scope**

This agreement establishes a framework for cooperation among the Parties in carrying out activities related to SAR within the aeronautical and/or maritime environment and sets out their various responsibilities

The Parties should ensure close coordination with their respective national aeronautical and maritime SAR authorities to help promote common and effective SAR services under this agreement.

## **2. Responsibilities**

[Insert name of national agency] and [Insert name of national agency] are each responsible for the maintenance of safety of life and within their respective aeronautical and maritime SAR regions, under their respective Search and Rescue Point of Contact (SPOC)

Each party on receiving information of an incident where any person is in distress within its SAR region should take urgent measures to provide the most appropriate assistance regardless of the nationality or status of such a person, or the circumstances in which that incident occurred or is detected.

SAR operations should normally be carried out in accordance with the relevant SAR manuals and recommendations of International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) including the IAMSAR Manual (as amended from time to time) taking into account SAR procedures established by national legislation.

The Parties should make every effort to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety; additionally when it does not involve excessive risk or cost to the units involved in SAR Operations, the Parties may attempt to rescue the craft or vessel on which the persons in danger are aboard.

To ensure that SAR operations are conducted in an efficient and coordination manner, the Parties should consult and cooperate with each other as necessary and appropriate, lending mutual assistance as their capabilities allow.

Either Party may conduct SAR operations within the SAR region of the other party under the coordination of that other Party's SPOC.

Entry of the SAR units of one party into or over the territory of the other Party for the purpose of conducting SAR operations should be expeditiously arranged to the best of each Party's ability and via the appropriate SPOC.

Solely for the purpose of searching for the site of an accident, rescuing survivors of such accidents, rendering emergency rescue assistance to persons, vessels, or aircraft in danger or distress and when the location is reasonably well known, permission to enter its territory shall be granted by a State to another State's search and rescue units provided that a request has been transmitted to the SPOC of the concerned State or to such other authority as has been designated by the State.

The SPOC of the State requesting assistance or the use of suitable SAR facilities of another State shall provide a full briefing, directly or indirectly to the SAR Units that have been made available by the assisting State, on the scope of the mission before the SAR units enter the SRR of the requesting RCC. If it is necessary for the SAR Units of an assisting State to land at an airfield or to make use of the facilities of the requesting SPOC in the course of performing an assigned SAR task the SPOC concerned should make all necessary arrangements to facilitate the tasking of such measures or actions.

To facilitate the coordination referred to in this section the parties should to the best of their ability, keep each other fully informed of all relevant SAR operations. The Parties should develop appropriate procedures in accordance with the IAMSAR Manual to provide for the most effective and efficient means of communication.

### **3. Search and Rescue Point of Contact SPOC**

The primary operational points of contact under this Agreement are the internationally recognized aeronautical and maritime SPOCs of the parties

[Identify national (SPOC)]

[Identify national Search and Rescue Point of Contact (SPOC)]

The Parties to the best of their ability should provide to each other any information which might be useful in order to expedite and improve coordination.

Identification of the operational points of contact is not intended to preclude direct coordination between any SAR facility or organization unit of the Parties, especially when time is of the essence in the saving of lives.

Transfer of SAR Mission coordination responsibilities between the SPOCs if deemed necessary should be conducted by consultation between the SPOCs.

#### **4. Cooperation**

The subordinate elements of the Parties may provide for further coordination and cooperation by the establishment of appropriate operational arrangements and procedures consistent with this Agreement.

In addition to information related to specific SAR cases, the Parties may exchange other information that may serve to improve the effectiveness of SAR operations. This information may include, but not be limited to:

- Communication details
- Information about SAR facilities
- Descriptions of available airfields
- Knowledge of fuelling and medical facilities
- Information useful for training SAR personnel
- The Parties will endeavour to promote mutual SAR cooperation by giving due consideration to collaboration including, but not limited to:
  - Exchange visits between SAR personnel
  - Joint SAR exercises and training
  - The use of ship reporting systems for SAR purposes;
  - Sharing of information systems, SAR procedures, techniques, equipment and facilities;
  - Provision of services in support of SAR operations
  - Coordination of national positions on international SAR issues of mutual interest;
  - Supporting and conducting joint research and development initiatives aimed at reducing search time, improving rescue effectiveness, and minimizing risk to SAR personnel; and

- Conducting regular communications checks and exercises, including the use of alternative means of communications that would be used to handle communication overloads during major SAR operations.

## **5. Finances**

Unless otherwise agreed by the Parties, each Party is to fund its own expenses for activities pertinent to this Agreement.

The provisions of the Agreement are contingent upon the availability of SAR personnel, facilities and funding.

SAR services provided by the Parties to persons in danger or distress are to be without subsequent cost recovery from the person(s) assisted.

## **6. Application of this Agreement**

All activities conducted under this Agreement should be in conformity with national legislation of the Parties, as well as with the relevant international conventions in force.

No provision of this Agreement should be construed as an obstacle to prompt and effective action by a party to relieve distress whenever and wherever found.

Any dispute regarding the interpretation or implementation of this Agreement is to be resolved by consultation between the Parties and is not to be referred to any international body, court or third party for settlement.

## **7. Modification**

This Agreement may be modified in writing by the Parties.

Duration, Withdrawal and Discontinuation

Cooperation under this Agreement may commence from the date of signature and may continue indefinitely. Either Party may withdraw from this Agreement at any time, upon giving not less than six months' notice in writing to the other Party.

Cooperation under this Agreement may be discontinued does not adversely impact any SAR operations or other cooperation in progress at the time that such discontinuation takes effect and should consult each other closely for this purpose.

Signed at [Insert location] this [insert date]

For the [Insert National Agency]

Signature of Authorized Signatory:

Name:

Designation:

Organization:

Signed at [Insert location] this [insert date]

For the [Insert National Agency]

Signature of Authorized Signatory:

Name:

Designation:

Organization:

Signed at [Insert location] this [insert date]

For the [Insert National Agency]

Signature of Authorized Signatory:

Name:

Designation:

Organization:

# **Sample National SAR Committee agreement Cayman Islands National Search and Rescue Committee Interagency Agreement**

## **1.1 Purpose**

This Agreement provides for a national-level Committee to coordinate civil search and rescue (SAR) matters of interagency interest within the Cayman Islands.

## **1.2 Background**

The National Search and Rescue Committee (NSARC) is established as a standing interagency group to oversee the National Search and Rescue Plan (NSP) and to act as a coordinating forum for SAR Matters. To ensure the maritime element is aligned with the already existing Search and Rescue Aviation Plan.

## **1.3 Sponsorship**

The Royal Cayman Islands Police is the sponsor of the NSARC

The RCIPS shall:

- Designate an executive-level person to Chair the Committee who shall report to the Secretary of Home Affairs via the RCIPS; and
- Appoint a Committee Secretary to ensure that the Committee operates according to policies and procedures contained in current directives.

## **1.4 Membership, observers and advisors**

The Members Agencies of the Committee are as follows:

- Commissioner of Police or designated officer
- Director General of the Civil Aviation
- Representative from Air Traffic Control
- Representative from the Port Authority
- Representative from Health Service
- Representative from the Department for Public Safety Communication
- Representative from the Joint Marine Unit
- Representative of the RCIPS Air Operations Unit
- Representative of the Fire Service
- Representative of Hazard Management Cayman Islands
- Representative of Media Handling
- Representative of Home Affairs
- Representative of Customs

- Representative of Immigration
- Representative of the Maritime Administration

Each of these Member Agencies shall designate one representative by name or position to serve as its primary Committee Member, and another serve as its Alternate Committee Member.

Each Committee Member may call upon officials in that agency to serve as Advisors and to participate in meetings of the Committee, or on the Search and Rescue Working Group.

Others may be invited with the approval of the Chair or the Committee to participate as government or non-government Observers on an ad hoc basis.

### **1.5 National Search and Rescue Plan Participation**

Member Agencies of the NSARC are by virtue of their membership also Participants of the National Search and Rescue Plan of the Cayman Islands.

### **1.6 Objectives**

The objectives of the Committee are to:

- Recommend implementation strategies and actions that ensure that the Cayman Islands meets domestic needs and international commitments to provide effective civil SAR services;
- Hold sole responsibility for the provisions of the NSP
- Serve as the primary coordinating forum within the national government for the conduct and support of civil SAR operations covered by the NSP, and for matters relating to national civil SAR policies and positions;
- Administer the National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual for interagency guidance on implementing the NSP;
- Seek to ensure compatibility between the NSP and the National Disaster Response Plan (NRP) so that the NSP can be implemented independently or concurrently with the NRP during an incident of national significance;
- Promote application of research and development, improved standards and procedures, new technologies, regulations, and education to improve the effectiveness and efficiency of distress alerting and other civil SAR services, and to reduce associated risks;
- Help coordinate the civil SAR efforts of the NSARC Member Agencies with other national and international government, private and volunteer organizations;
- Promote the effective use of all available resources to support civil SAR;
- Foster appropriate use of SAR agreements and other arrangements and plans to improve cooperation and mutual support among the various national and international civil SAR communities;



- Promote close cooperation among civilian and military authorities and organizations for provision of effective civil SAR services;
- Promote analysis and initiatives to help citizens avoid or cope with distress situations; and
- Consider as appropriate, contingency plans for use of SAR resources in emergencies other than civil SAR.

## **1.7 Procedures**

The following procedures shall be followed in conducting the business of the Committee

- The committee shall schedule regular meetings on at least a [quarterly] basis.
- The Chair or any Member Agency via its respective Committee Member may call a special meeting when deemed necessary.
- Meetings will be properly documented by the Secretary. Decisions will normally be made by consensus. When consensus cannot be reached, decisions will be submitted to the Committee for majority vote at a regular or executive meeting of the Committee, or by an informal poll of the Committee Members by the Secretary with the results properly documented.
- The Chair is authorized to represent directly the views, actions, recommendations and decisions of the Committee, or otherwise act on behalf of the Committee, by correspondence or other means.

The normal procedure for addition of a national Agency as an NSARC Member Agency and NSP participant shall be as follows:

- Based on a unanimous vote of the Committee, the Chair will extend a written invitation to the prospective Member Agency, and the Agency will respond to the Chair in writing of the Agency's acceptance; and
- The Chair will then notify each Member Agency, via the Member Agency's Executive Secretary or an individual designated to receive such notification, of the acceptance. If no Member Agency objects within [60] days, the invited Agency will from that time become an NSARC Member Agency and an NSP Participant. Such notifications, designations and objections must be in writing.

Alternatively, an additional national Agency may become a Member Agency and NSP Participant by mutual written agreement of all current Member Agencies and the prospective Member Agency.

Termination of an Agency's Committee Membership shall automatically terminate its status as an NSP Participant; such termination shall be accomplished by the

Agency's written notification to the other Member Agencies at least six months in advance.

Policy issues or plans that require attention or approval of the Signatories, e.g. adoption of the NSP will be submitted by the Chair with recommendations for action. In such cases the views of all the Committee Members shall be included.

Nothing in this Agreement shall be viewed to obligate the Member Agencies to comply with decisions of the Committee.

### **1.8 Entry into force, amendment, renewal and termination**

This Agreement shall enter into force on the date of the first Committee meeting following the completion of the signatures by the Secretaries (or equivalent level authority) of all the Member Agencies.

Based on a unanimous vote of the Committee, any proposed amendment(s) to this Agreements or to the NSP must be adopted by the following means:

The Chair will notify each Member Agency, via the Member Agency's Executive Secretary or an individual designated to receive such notification, of the proposed amendments. If no Member Agency objects within [60] days the amendment(s) will be considered adopted. Such notifications, designations, and objections must be in writing.

The amendment(s) shall be adopted by mutual written agreement of all Member Agencies.

This Agreement as amended, shall be automatically be renewed on 1 January 2018 and every five years thereafter unless superseded by a new arrangement or terminated.

[Agency names and signatories]



## **Office of the Deputy Governor**

### **SEARCH AND RESCUE (OTSAR) CAPABILITY REVIEW FOCUS GROUPS**

#### **The Overseas Territories Search and Rescue (OTSAR) Capability Review Focus Group on Cayman Brac**

**14 December 2016, 10:00-12:00.**

A group of people, from various government agencies and private sectors who are familiar with the coastline and waters around the Sisters Islands took part in a discussion regarding the search and rescue capabilities on Cayman Brac. Eight questions were posed. Below are the answers;

#### **Question 1: How would you describe the waters and coastline to a stranger to these islands?**

- Clear, deep and unsafe at times with unpredictable current changes. One must have knowledge of the water conditions in order to navigate the sea safely all the while experiencing poor visibility.
- Shallow areas and high rocks are not properly marked. Navigation aids are few and far between and are not accurate
- Swimmers and snorkelers must be advised of high currents and owners of boats should be vigilant and aware of unmarked coral heads and channels.
- There are limited resources available if assistance is needed.
- Coral Heads not marked.
- Marine parks not adequately signed.

#### **Question 2: In your opinion, what are the main risks that the seas and coastline present to boats, watercraft and swimmers?**

- After a storm passes, any type of markers and navigational lights are damaged or destroyed. Because of the unpredictable weather condition and swift current change, it is too expensive to repair the faulty equipment.

- Lack of resources and knowledgeable crew prevents the up keep of the equipment.
- The navigational tools used are not universally recognized. Signs utilized are different from standardized – international standards and regulations which can jeopardize the lives of many boaters.
- There are no website, data or updatable information readily available for people; i.e. channel, reef and depth locations. Lack of education and information of the terrain. Vessels entering the channels are a problem when approaching the shoreline at night.
- Swimmers share boat traffic and do not use safety equipment (markers, buoy, and lights).
- According to law, a person reaches 15 years of age can become captain of a boat. One must be vigilant around those inexperienced untrained persons.
- No license or insurance are required to own a private boat. Rules and guidelines from Port Authority are not always enforced.
- Shore divers/snorkelers do not mark their positions

**Question 3: What are the main causes of accidents at seas?**

- Inexperience
- Lack of local knowledge and skill navigating the shoreline, inexperienced navigating the channels.
- Illicit activities; alleged criminals go out in bad conditions.
- Poor equipment and lack of safety equipment.
- Unable to swim. Kids are now given swimming classes which is part of the scuba curriculum
- Human error
- Alcohol

**Question 4: What are the present search and rescue capabilities and their three main weaknesses?**

- Sister Islands do not have any government S & R capabilities;
- Fire rescue boat is not operable,
- JMU does not have a presence on the Brac since August 2016- lack of staff and budget issues.
- Only volunteer capability offered by diving companies- liability question.
- Customs has a new fishing vessel (not purposed for S&R) but is yet to be made fully operational nobody is trained to operate it or repair it.
- DOE does not have a boat that is sea worthy.
- Port Authority does not have a boat.

- Communication is very limited. The radio hand held system is shut down. In 2014, Hazard Management confirmed that the system needed to be replaced.
- No coordination, no committee, no enforcement, no plan, no structure in place, lack of procedure and responsibilities.

**Question 5: What could be done to improve search and rescue operations in the Cayman Islands?**

- Oversight committee to provide coordinated approach to S&R.
- Effective communication between agencies;
- Capabilities;
- Safety equipment;
- Working equipment;
- Activated GPS- vehicle locator;
- JMU presence;
- Personnel and Training;
- Clear roles and responsibilities- take advice from experienced Brackers;
- Regulations;
- Government should provide liability insurance and compensate for fuel used when private companies are carrying out search and rescue on behalf of government.

**Question 6: What are the priorities that should be fixed first?**

- Strategic approach to S & R- Regulations, Enforcement- appoint the right representation-
- Establish a dependable oversight committee;
- Effective Communication;
- Working Equipment & Safety equipment ;
- Training;
- Capabilities- liability- Insurance- financial compensation to private sector;
- 911 operators should be more knowledgeable with Sister Islands' geography and marine locations.

**Question 7: Is the community open to change even if this means some regulation, registration or licensing of boats?**

- If regulations are not enforced, then it does not make sense to create any.
- It is the responsibility of the boat owner to register, license, insure and request inspection as it is not regulated by government.

**Question 8: Which private sectors are willing to contribute to a more effective search and rescue, is their scope for a volunteer service?**

- Private diving operators are the only ones able to engage in the S&R at the moment and without being compensated for.
- Willing to participate with government providing safeguards are in place.

**The Overseas Territories Search and Rescue (OTSAR) Capability Review  
Focus Group on Grand Cayman,  
16 December 2016, 10:00-12:00.**

A report will be generated in the next 6 weeks and will be provided to the attendees.

A group of people, from the private sector who are familiar with the coastline and waters around the Cayman Islands took part in a discussion regarding the search and rescue capabilities on Grand Cayman. Eight questions were posed. Below are the answers;

**Question 1: How would you describe the waters and coastline to a stranger to these islands?**

- Beautiful, tranquil, deceptive and unforgiving, warm temperature. Minimal tide variations, deep and unsafe at times with unpredictable current changes.
- Channels are not properly marked or maintained.
- Navigation aids are few and far between, not accurate.
- Swimmers and snorkelers must be advised of high currents and owners of boats should be vigilant and aware of unmarked coral heads and channels.
- There are limited resources available if assistance is needed.
- Unpredictable weather
- International Rules apply in Cayman

**Question 2: In your opinion, what are the main risks that the seas and coastline present to boats, watercraft and swimmers?**

- After a storm passes, any type of markers and navigational lights are damaged or destroyed. Because of the unpredictable weather conditions and swift current change, it is too expensive to repair the faulty signage.
- Unfamiliarity with the terrain and lack of warning signs.
- Lack of proper equipment.
- Shortage of resources and knowledgeable crew prevent the up keep of the equipment.
- No enforcement for private vessels.
- Lack of education and information of the terrain. Vessels entering the channels are a problem when approaching the shoreline at night.
- Swimmers share boat traffic and do not use safety equipment (markers, buoy, and lights).
- No license or insurance are required to own a private boat. Rules and guidelines from Port Authority are not always enforced.

- No lifeguard on the beach.
- Craft overload. Ratio of crew to passenger is unmanageable.
- Police/Marine Enforcement are ill equipped and not trained to carry out S&R
- Channels difficult to negotiate.
- Lack of Signage for swimmers and marine parks

**Question 3: What are the main causes of accidents at seas?**

- Lack of local knowledge and skill navigating the shoreline, inexperienced navigating the channels.
- Poor health, poor judgment.
- Poor equipment and lack of safety equipment.
- Unprepared and uninformed boaters.
- Human error/911 operators are not familiar with the different marine locations.
- Alcohol
- Lack of warning signs

**Question 4: What are the present search and rescue capabilities and their three main weaknesses?**

- Marine law enforcement does not have any S & R coordination center, organization or training for the staff.
- Marine Unit's capabilities are limited- lack of staff, equipment and budget issues.
- Only volunteer capability offered by diving companies and private boat owners.
- Communication is very limited. VHS radios could be installed on aircrafts. Lack of communication and transparency.
- Police withhold or relay the information too late.
- Government's assets should be utilized; MRCU and Cayman Airways' aircrafts could supplement the helicopter. At the moment, the Port Authority has a boat but does not use it for S&R efforts.
- Unable to drop rescue packs.
- Search and Rescue at night are solely done by private boat owners.
- No coordination, no committee, no enforcement, no plan, no structure in place, lack of procedure and responsibilities.
- Liability issues for private sector carrying out search and rescue on behalf of government.

**Question 5: What could be done to improve search and rescue operations in the Cayman Islands?**

- Effective communication;



- Capabilities;
- Safety equipment;
- Working equipment;
- Activated GPS- vehicle locator;
- Personnel and Training;
- Use lights at night;
- Clear roles and responsibilities;
- Enforcing rules and regulations;
- Partnership between Government and private sector;
- Set up a board to oversee S&R missions independent from Government entity;
- Donation from the private sector/ fund raising events;
- Media needs to be engaged.
- Better Communication with US Coast Guard

**Question 6: What are the priorities that should be fixed first?**

- Strategic approach to S & R- Regulations, Enforcement- appoint the right representation- Dependable committee;
- Effective Communication;
- Working Equipment & Safety equipment ;
- Conduct ongoing training; employ qualified people
- Capabilities- liability- Insurance- financial compensation to private sector;
- 911 operators should be more knowledgeable with the geography and marine locations.

**Question 7: Is the community open to change even if this means some regulation, registration or licensing of boats?**

- If regulations are not enforced, then it does not make sense to create any. It is the responsibility of the boat owner to register, license, insure and request inspection as it is not regulated by government.
- Use part of boat licensing revenue to fund S&R efforts.
- Existing rules and regulations need to be tweaked.
- Coordinate, command and control- standalone unit in the likes of the Lifeboat Association.

**Question 8: Which private sectors are willing to contribute to a more effective search and rescue, is their scope a volunteer service?**

- Private boaters and diving operators are often called to engage in the S&R efforts.
- The Anglin Club Members have been assisting the government for years in S & R missions.
- The “Protector” boat was given to Cadet Corp for use but they are unable to maintain it. Since the boat could be operated in S&R missions, Harbour House Marine’s owner is willing to take possession of it in exchange for free repair and maintenance.

| <b>Focus Group - Search and Rescue Capability Review-14th December 2016</b> |   |
|---|---|
| <b>Name</b>   | <b>Interest</b>                           |
| 1. Edgar Ashton Bodden  | Retired Sea Captain & Port Superintendant |
| 2. Steve Bodden   | Marine Engineer & Fisherman               |
| 3. Kenny Ryan   | Fisherman                                 |
| 6. Conrad Martin  | Fisherman                                 |
| 7. Justin Bodden  | Fisherman                                 |
| 8. Erbin Tibbetts   | DOE                                       |
| 9. Sheldon Scott  | Retired Policeman                         |
| 12. James Robinson  | Fisherman                                 |
| 13. Jason Belport   | Dive Operator                             |
| 14. Martin Van Der Touw   | Dive Shop Owner                           |
| 15. Inspector Parchment - RCIPS   | RCIPS                                     |
| 16. Kennedy Douglas   | Fire Service                              |
| 17. Miguel Martin   | CIAA                                      |
| 18. Dale Christian  | Port Authority                            |
| 20. Raymond Scott   | Immigration                               |
| Joe Kellog  | Fisherman                                 |
| Raquel Matute   | Customs                                   |

| <b>Focus Group - Search and Rescue Capability Review-16th December 2016<br/>Room - 2112.</b> |                                |
|--|--------------------------------|
| <b>Name</b>  | <b>Interest</b>                |
| Kirkland Nixon   | Member of accident review team |
| Mary Lawrence  | Member of accident review team |
| Chris Briggs   | Harbour House Marina           |
| Joel Francis   | Angling Club                   |
| Ladner Watler  | Retired Marine Officer         |
| Gary Rutty   | Sports Fisherman               |
| Adrian Ebanks  | Watersports                    |
| Tom Guyton   | Fisherman/Aircraft             |
| Steve Broadbelt  | Dive Boat Business Owner       |
| Dan Scott  | Fisherman                      |
| Elvit Conolly  | Fisherman                      |
| Michael Ebanks   | Charter Boat Captain           |
| Andrew Edgington   | Sailor                         |
| Captain Chuckie Ebanks   | Charter Boat Captain           |