



APPENDIX 1

HAZARD MANAGEMENT CAYMAN ISLANDS



ANNUAL REPORT 2019

Foreword from the Director



It was an active hurricane season with 18 named storms and 6 hurricanes, but the Cayman Islands came through 2019 without any major impacts or disasters. The most intense Hurricane of the season, Hurricane Dorian, devastated parts of the Bahamas and the Cayman Islands provided significant support, deploying the Royal Cayman Islands Police Service (RCIPS) helicopter and medical relief teams to assist in the aftermath.

Two small earthquake tremors; one in March and the other in December, generated a handful of felt reports and towards the end of the year (in December) there was a Nor'wester that was accompanied with big enough swells to cause a number of shipping containers to be swept off the dock, and into the sea at the Port Authority. The same storm resulted in minor structural damage to a few locations along North Church Street.

Three members of the HMCI team transitioned to the Department of Public Safety Communications (DPSC), as this key partner agency took on the responsibility for the oversight and management of the National Public Safety Radio System.

HMCI also welcomed two new faces; Patree Walcott was seconded from the RCIPS and Leslie (Lennox) Vernon was seconded to HMCI from the DPSC and he was transferred in the role of Assistant Director later in the year bringing a wealth of experience in public safety to the team. Additionally, over the course of 2019, HMCI's Planning and Preparedness Officer, Teresita DaSilva, took on greater managerial responsibilities.

2019 was a year of change and HMCI was able to make solid gains in a number of key areas, including the continued development of hazard specific plans, the implementation of more robust warehouse standards, the procurement of relief supplies, and an

increased focus on mental health and situational awareness.

HMCI also successfully rolled out Phase I of the National Emergency Notification System (NENS) - Radio Interrupt, in collaboration with the DPSC and delivered a robust training and public awareness program, which included the establishment of a new Community Emergency Response Team (CERT) in Savannah Meadows, and an increased focus on the needs of the elderly in disasters.

HMCI looks forward to building on the successes of 2019 to ensure our preparedness, mitigation, response and recovery to any future large-scale emergencies is an effective and robust one.

A handwritten signature in blue ink, appearing to read 'Danielle Coleman', followed by a long horizontal flourish.

Ms. Danielle Coleman
Director, Hazard Management
Cayman Islands (HMCI)
December 2019

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Above photo showing Minister of Home Affairs Hon. Tara Rivers opens an Earthquake workshop hosted by EMAP and HMCI.

Context

Hazard Management Cayman Islands

(HMCI) is responsible for the National Emergency Operations Centre (NEOC) and coordinating the national response for all hazards, man-made and natural.

We take the threat of hurricanes and other hazards very seriously and continually strive to be more proactive and dynamic in our efforts to protect our people, property and economy from harm.

During 2019 the following activities were undertaken by HMCI to ensure the Cayman Islands are better prepared for all hazards.

Disaster Response Plans

There was a concerted effort to develop and refine our Disaster Response Plans this year and in February 2019, with the assistance of Emergency Management Accreditation Programme (EMAP)/Foreign & Commonwealth Office (FCO), HMCI hosted a multi-agency stakeholder's workshop to develop an Earthquake Response Plan.

Significant work has also gone into finalising the National Oil Spill Plan. To that end, HMCI is working closely with the Department of Environment, the Ministry of Health and other stakeholder agencies to ensure that all operational response elements are appropriately assigned and

agreed, and that ongoing training and simulation exercises are incorporated in departmental work plans and budgetary allocations.

HMCI drafted a Hazardous Materials Plan in 2018 and will continue working with stakeholders with a goal of implementation in 2020/2021

The National Relief Plan is currently under revision and HMCI is working with Voluntary Agency partners, such as the Cayman Islands Red Cross and ADRA, the Office of the Auditor General, the Department of Children and Family Services and the Needs Assessment Unit to centralize all relief in the aftermath of an emergency to ensure that it is distributed appropriately and can be accounted for accurately.



Above photo showing multi-agency conference hosted by HMCI.

Community Emergency Response Teams (CERTs)

Building capacity at the grass roots level

is considered a key strategy for enhancing resilience. To this end, HMCI and the Cayman Islands Red Cross (CIRC) developed a plan to provide training to 2 new Community Emergency Response Teams (CERTs) in 2019. Training consists of 40hrs. and covers topics such as First Aid/CPR, Search and Rescue, Vulnerability and Capacity Assessment, Damage Assessment and Fire Safety.

Training was conducted in the second quarter of 2019 for a team in Savannah Meadows who graduated in Q 3. HMCI and CIRC had intended to conduct training in Little Cayman in Q4 however due to scheduling difficulties of key stakeholders, this training will be conducted in 2020.

52 CERT members were trained in Cayman Brac and currently there are functional teams in Prospect, West Bay, North Sound Gardens, Savannah and Cayman Brac.

HMCI has regular engagement with the CERT teams which includes a monthly training open to all CERT members and an annual CERT Appreciation Reception.

Planning is also underway for a 2-day disaster challenge in 2020 with all CERTs, to ensure all volunteers who serve their community in this capacity have adequate ongoing practical disaster response training and experience.



Above photo showing Shelter Management training facilitated by HMCI.

Shelters and Relief Supplies Warehouse

HMCI ensures that emergency shelters are always prepared and ready to operate. This includes stocking them with the necessary provisions, making sure the generators are maintained and working should the need arise and ensuring that staffing resources including Shelter Managers and volunteers, Child Protection Officers, Police Officers, Environmental Health Officers, First Aid volunteers and Doctors/ Nurses (in the case of the Emergency Medical Centres) are trained and readily available.

The annual training for Shelter Managers and Volunteers was conducted by HMCI and the Department of Children & Family Services on the 27th and 28th May.

Shelter capacity currently stands at 8% in Grand Cayman and HMCI has partnered with the Public Works Department to undertake a comprehensive Shelter Assessment which will inform plans for capacity expansion. In March 2019, Cabinet approved a grant to the Bodden Town Church of God to enable upgrades to the

building to the approved Emergency Shelter Standard. HMCI is also involved in a project to increase capacity at the John Gray High School. In addition, HMCI has worked throughout 2019 with private companies to ensure they can accommodate their own staff to reduce the reliance on current public shelters and they have also provided training for these shelter managers.

Furthermore, having recognized that some residents refuse to leave their homes to seek safe shelter in the advance of a hurricane without their pets, HMCI has worked closely with the Dept. of Agriculture, Dept. of Education and St. Matthews University to bring 2 animal friendly shelters on line this year.

Significant work has also been done to revamp the HMCI Relief Warehouse this year which has included a full inventory count, building of shelves, training of staff in warehouse management and a mapping exercise.

Three (3) staff members from HMCI and the Auditor General's Office received training in the electronic tracking system - Logistics Support System, in order to track relief supplies during activation. In 2020, HMCI plans to ensure that relief supplies are electronically tracked to further enhance inventory control and accountability. HMCI will continue to procure and store relief stock inventory per best practice to ensure value for money.

Simulation Exercises

In 2019, HMCI hosted a wide range of exercises and plans are in place to continue this in 2020.

The Caribe Wave Tsunami Exercise was conducted in March 2019. HMCI shifted the historical focus from a communications exercise to a table top simulation between all first response agencies and the Department of Tourism to determine roles and responsibilities during a tsunami. In preparation for the exercise, HMCI produced 3D maps for tsunami vertical evacuation of George Town and Seven Mile Beach and facilitated a follow up meeting to ensure Action Points were acted on.

The Annual Hurricane Exercise was conducted on 23rd and 24th May. It was very well attended and incorporated a full activation of the NEOC and focused on response, recovery and continuity of operations. Unlike previous years, this exercise focused on facilitating discussions with the use of scenarios. The intention was to ensure everyone in the NEOC

understood the whole operation as opposed to just that of their own individual teams.

HMCI also provided support to other Government Departments and entities such as the Port Authority, Civil Aviation and NGOs such as the Red Cross in the execution of their annual exercises.

These exercises are vital for inter-agency coordination and for testing and improving hazard specific plans and in the absence of activations, drills like these help build familiarity and maintain muscle memory for the many stakeholders involved.

First Responders Training

In April, HMCI hosted a Mass Casualty Management (MCM) Training and an MCM Instructor Training which was co-facilitated by a representative of the Pan American Health Organization (PAHO).

The intensive, week-long training concluded with an overnight exercise, where police and fire officers, medics and other first responders worked together on a range of scenarios that included a stadium collapse, a gang fight involving multiple victims, a large transportation accident and hazardous materials spill. The Instructor training was an additional week.

A second Mass Casualty Management training was initially scheduled for Cayman Brac in November, but this had to be rescheduled due to stakeholder availability.

A 3-day Strategic Incident Command Training (ICS) hosted by HMCI in September was attended by Senior Managers from a range of first response agencies, including the Royal Cayman Islands Police Service (RCIPS), Cayman Islands Fire Service (CIFS),

Department of Environmental Health (DEH), Department of Environment (DoE), etc. The ICS is a system designed to be used from the time an incident occurs until there is no longer a need for management and oversight of operations. ICS can be used to cope with incidents of any kind or complexity.

In 2020/21, HMCI will continue to offer a Mass Casualty Course and an Incident Command Course for first responders. The breadth and range of various training exercises will be increased to include large-scale evacuation drills, as well as hazardous materials and oil spill response exercises. There is also discussion about an exercise involving the cruise lines as it is recognized that this is a critical area.

HMCI recognizes that a well-trained Urban Search and Rescue Team is a vital asset to provide appropriate post-impact response, especially following a damaging earthquake, major fire or after a hurricane where buildings have been damaged and/or collapsed.

Planning has already started with Cayman Islands Fire Service (CIFS) to identify a core group of officers who will undertake this training and HMCI will continue to develop the team and provide continued training and exercises to ensure that it is sustainable, effective and ready to be deployed in response to a wide range of post impact scenarios.

National Day of Preparedness

As in previous years, the National Day of Preparedness was celebrated on Discovery Day – 20th May 2019. HMCI staff were present at the four-participating hardware stores every Saturday during the month of May to meet with residents and discuss their personal preparedness plans for hurricanes and other hazards. Residents were invited to enter a raffle to win a preparedness kit which was sponsored by each of the hardware stores.

Public Awareness and Outreach

HMCI takes a proactive approach to public awareness throughout the year and participates regularly in Radio and TV programs, issues press releases, etc. HMCI's Website and social media (Facebook and Twitter) are also updated on a weekly basis with the objective of expanding our Facebook following by 25% in 2019, and

establishing our Instagram and YouTube presence.

HMCI is also looking into using cartoons, live video footage from previous incidents and other forms of videography to enhance customer engagement on various social media platforms.

HMCI conducted a media blitz on 1st June that included Hurricane preparedness tips on rotation across 4 radio stations at a rate of 100 messages per day. HMCI staff and colleagues from several partner agencies also participated in numerous live TV and radio appearances throughout the day.

During the year HMCI also coordinated the delivery of a number of hazard awareness presentations to various Government Departments, Churches, local businesses. In 2019, HMCI, in partnership with Cayman Islands Red Cross, presented to over 2,000 school children of various ages. The focus of the outreach was expanded to include the elderly and approximately 160 older persons and caretakers received presentations.

HMCI provides input for the annual hurricane supplement and distributes thousands of Hurricane Awareness booklets and a Children's All Hazard Activity Booklet during the lead up to the season.

Direct engagement at public events such as the Ritz Carlton Health Fair, Career Fairs, the Agriculture Show and the Seventh Day Adventist Health Expo are also strategies that HMCI uses annually to spread the preparedness message.



Above photo showing HMCI presenting to Clifton Hunter High School.

National Emergency Operations Centre (NEOC)

Maintaining the readiness of the NEOC

Emergency Support Teams (EST) is an important factor in ensuring that the NEOC is always ready to operate. HMCI conducts quarterly NEOC activation drills for staff and support services (IT/Facilities) and equipment checks are carried out monthly.

HMCI has also held meetings in April/May with Cluster Managers and all 17 ESTs to ensure maximum readiness. At these meetings the ESTs reviewed their respective portions of the main Hazard Management Plan, familiarized themselves with their

roles and if necessary, updated their Standard Operating Procedures.

Each year the Main Plan is updated to reflect any changes recommended by the ESTs and lessons learned from exercises or activations are incorporated.

HMCI updates and maintains the NEOC contact lists to ensure they are current. We have also produced comprehensive flow charts that provide a step by step guide to activation for all rapid and slow onset events. These charts are used as quick reference guides for all activations.



Above photo showing the Hazard Materials workshop.

Elderly

Throughout 2019, HMCI has been working with the Department of Children and Family Services to significantly increase outreach efforts and to provide additional interventions and support for elderly persons in the Cayman Islands.

The 'frail elderly' have been identified as a particularly vulnerable subgroup in the aftermath of disasters, and HMCI has embarked on a programme of providing presentations at care homes and residential facilities, and meeting directly with the elderly in the district community groups.

HMCI is also encouraging Community Emergency Response Teams (CERTs) to offer greater awareness and support to the frail elderly and persons with disabilities in their communities. Medic alert kits were distributed to seniors so vital family contact information and medical details can be quickly retrieved by responding ambulance crews, therefore speeding up response in an emergency.

Mental Health

Significant steps have been taken this year regarding integrating mental health into emergency response. HMCI has been working closely with the Ministry of Health and the Health Services Authority to ensure there are mental health professionals and appropriate facilities in Shelters and the NEOC.

Furthermore, stress management workshops have become a bi-monthly occurrence at HMCI for all staff. In 2020, HMCI will continue to explore viable options to strengthen capacity in this area.

Relief Distribution and the Collaborative Cash Program

HMCI is working with Government partners (Auditor General Office/ Needs Assessment Unit/ Department of Children and Family Services) and Auxiliaries/Non-Government partners (CIRC/ Adventist Disaster Relief Agency (ADRA etc.) to re-design the relief distribution process.

The intention is to develop a centralized assessment and relief location where aid from each agency will be stored and subsequently distributed in accordance with an agreed plan and methodology.

HMCI is also working in partnership with the CIRC, Department of Community Rehabilitation and the Needs Assessment Unit to determine whether a Collaborative Cash Program will complement existing In-Kind Relief distribution items. Feedback will be sought from Cabinet if the program is further developed.

Development of the National Emergency Notification System

In 2018, HMCI, in collaboration with the Department of Public Safety Communications commenced the installation of Phase I of the National Emergency Notification System (NENS) - an integrated, versatile radio interrupt system solution to support emergency alerts for

the Cayman Islands.

In 2019, the installation of this radio interrupt technology was completed at all radio stations island wide. Training for Operators and Administrators has been conducted and a number of system tests were successfully carried out. The finalization of Standard Operating Procedures (SOP's) and the agreement of MOUs with all Radio Operators was completed. A system of monthly checks of the existing Radio Interrupt that was implemented in Phase I in 2019 will commence in 2020 to ensure the public are aware of these alerts and that they are reliable.

In 2020 and 2021, HMCI will focus on completing the full implementation, including training of system users and public testing, of Phase II of the National Emergency Notification System - the implementation of a comprehensive mobile strategy for emergency notification, via a Mobile Alert app.

The Mobile Alert app will provide advanced, real-time, location-specific alerts, designed to keep Cayman Islands residents and visitors informed and safe. Public safety officials will be able initiate notifications via the mobile applications. A mobile-friendly registration process will allow Cayman Islands residents and visitors to download the free app in a simple and fast way to receive emergency alerts.

The goal is to include cell broadcast alerts which would enable Government to rapidly send emergency messages directly to all cell phones within range of communications towers across the Cayman Islands. This is similar to the Amber Alert system in the United States. Eventually, the plan is to have the technology in place to allow for emergency alerts to be sent remotely from a single platform – in other words a single message will be sent simultaneously to radio stations, tv, cell phones, and so on.

Crisis Hub

In 2019, HMCI, in collaboration with the Governor's Office and the Cayman Islands Red Cross, implemented the FCO's "Crisis Hub", an 'affected' or 'missing' person's tool that provides a standardized approach for handling casualty tracking, missing persons and evacuations.

In 2020, we hope to conduct several training drills with call takers at the Casualty Bureau, as well as developing the relationship with the Crisis Management Department (CMD) at FCO, London, to ensure there is external support with call taking and that a Caymanian representative is embedded at CMD during activation.

HMCI will continue to work closely with the Cayman Islands Government Office London to identify this person so that they can provide localized information to CMD.

Situational Dashboard

HMCI has developed a situational dashboard this year that integrates real time information (locally, regionally and globally) which will serve as a vital decision-making tool for the NEOC. In 2020, HMCI will continue to increase its capabilities by providing improved identification of flood prone areas - both current and historical, communities affected, critical infrastructure impacted, and nearest shelters during and in the aftermath of a large-scale emergency.

HMCI has also used ArcGIS to conduct impact assessments for incremental sea level rise scenarios, identified critical infrastructure and road corridors at risk. In 2020, documents will be developed to identify strategies to prevent, protect and mitigate against the potential threats and impacts.

Continuity of Operations Plans

Continuity of Operations Plans (COOP) for

Government Authorities are produced and updated annually to ensure that Government Departments and Agencies can resume their critical functions and services as soon as possible following an impact.

HMCI is reviewing all 89 Department COOP plans this year to ensure that they include the required level of detail. In addition, we have provided training and enhancing quality control measures to ensure that plans are fit for purpose.

National Disaster Fund

In 2019, amendments were made to The Disaster

Preparedness and Hazard Management

Law, 2016 to formally establish the National Disaster Fund, which existed previously but was not protected by any legislative framework.

Each year a percentage of funds from General Revenue and the surplus of HMCI's budget is added to this fund, and provided that we are not impacted, that money will continue to grow and be available if required to fund relief operations in the aftermath of a disaster.

OT's Rapid Deployment Team

Lessons learned from Hurricanes

Irma and Maria in 2017 and most recently Hurricane Dorian this year, highlighted the need for an Overseas Territories Rapid Deployment Team that could be swiftly deployed to provide support to an impacted territory. HMCI and the Governor's Office are leading the region in the establishment of an Overseas Territories Rapid Deployment Team. Each territory will pre-identify skills and resources that can be swiftly deployed to provide support for an impacted territory.

Members of the team will have specialist skills such as medical relief, communications, logistics, damage

assessment, Emergency Operations Centre coordination, etc.

In addition, assets such as the RCIPS helicopter and Cayman Airways airlift may be brought into service to assist an impacted territory.

By pre-determining these useful skills and resources within each territory and securing response commitments to support each other in the aftermath of an impact, it is anticipated that the Rapid Deployment Team mechanism will provide critical support resulting in a more efficient and coordinated response when it is needed most.

HMCI, in partnership with the Governor's Office, continues to promote this concept and it is envisioned that the agreement will be formalized through a Caribbean Overseas Territories Memorandum of Understanding in 2020/2021.

CDEMA Membership

In June 2019, the Cayman Islands Government initiated formal discussions with the Caribbean Disaster Emergency Management Agency (CDEMA), about membership in the organization.

CDEMA is a regional inter-governmental agency for disaster management in the Caribbean Community (CARICOM) which offers a wide range of services to participating states, a number of which will be of significant benefit to the Cayman Islands.

HMCI is currently facilitating a capability audit that involves stakeholder agencies across several Ministries and staff from HMCI, the Ministry and the Governor's Office will join representatives from other member countries at the Annual CDEMA Conference in early December to learn first-hand about upcoming opportunities for training and capacity building in 2020 and 2021.

Closing Remarks

HMCI would like to thank all partner agencies, both in the public and private sectors, as well as the public for continuing to play an important role in being prepared.

We look forward to continued relationship building to enhance the resilience of the Cayman Islands.



Above photo showing pre-Hurricane season briefing of the National Hazard Management Council.

