Bermuda National Security and Defence Review

TOWARDS A MORE SECURE BERMUDA

2014

National Security and Defence Review

Towards A More Secure Bermuda

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National Security and Defence Review Committee
Lightbourne & Simmons Building
61 Victoria Street, Hamilton HM 12

6 February 2014

His Excellency the Governor
Mr. George Fergusson
Government House
11 Langton Hill
Pembroke East HM 13

Your Excellency,

National Security and Defence Review Committee Final Report
Towards a More Secure Bermuda

As Chairman of the National Security and Defence Review Committee, I have the honour to forward to Your Excellency the Final Report of the Committee which was appointed by Your Excellency on Wednesday, 22 May 2013.

The Committee's mandate was, briefly stated, to undertake a fundamental review of Bermuda's national security needs, to assess the resources required to meet those needs and to make recommendations on the structures and organization required.

It quickly became apparent to the Committee that its remit was, in many respects, a groundbreaking undertaking and that the inquiry marked the first time that such a wide-ranging and comprehensive assessment of the Island's security capabilities has been carried out. The Committee believes that its Final Report appropriately fulfils its mandate.

In approaching its task, the Committee received volumes of information not only from uniformed organizations such as the Bermuda Regiment, the Bermuda Police Service and HM Customs, but also from a diverse and broad cross-section of the community with a keen interest in and a passionate commitment to ensuring that Bermuda is well served in all aspects of security.

The information gathered by the Committee emanated from written and/or oral submissions from individuals and organizations. The Committee is indebted to all who provided information for their willingness to share that information and for their unreserved candour in doing so.

Many of the recommendations being proposed by the Committee will, of course, potentially have consequential financial implications. However, the Committee considers that this fact alone should not preclude consideration being given to these recommendations.

The Committee commends to Your Excellency and to the Government of Bermuda

the recommendations in this Report in the sincere belief that these recommendations provide a sound and secure platform upon which the security needs of Bermuda can be properly and appropriately addressed for years to come.

In submitting its Report, the Committee wishes to record, with sadness, the sudden death in early January 2014 of Mrs. Louise A. Jackson, OBE, JP. Mrs. Jackson was a valued and enthusiastic Member of the Committee, someone who brought insight, energy, passion, humour and a wealth of knowledge to the task at hand. Her commitment to this review never wavered and her contributions to the shaping of the Final Report will be a lasting memory for all of us who had the pleasure of knowing her and serving with her.

Your Excellency, it has been both an honour and a privilege for me and my fellow Committee Members to have been invited to undertake this significant assignment and it is our hope that this Report will provide a practical platform from which Bermuda's security needs can be addressed appropriately.

Yours sincerely,

Leopold Nathaniel Mills II, CBE, LL.D, JP
Chairman

Copy: The Hon. L. Craig Cannonier, JP, MP
Premier

The Hon. Michael H. Dunkley, JP, MP
Deputy Premier and Minister of National Security

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

ADC..... Aide-de-camp
AIS ..... Marine Automatic Identification System
ARFF..... Aircraft Rescue and Fire Fighting
BAS ..... Bermuda Aviation Services
Belco..... Bermuda Electric Light Company
BFRS..... Bermuda Fire and Rescue Service
BHB ..... Bermuda Hospitals Board
BIOS ..... Bermuda Institute of Ocean Sciences
BPS ..... Bermuda Police Service
BRP ..... Bermuda Reserve Police
BWS ..... Bermuda Weather Service
CARICOM ... Caribbean Community
CCLEC..... Caribbean Customs Law Enforcement Council
CCTV ..... Closed-circuit Television
CLU..... Court Liaison Unit
CRM..... Customer Relationship Management
DAO ..... Department of Airport Operations
DFiD ..... Department for international Development
DOT..... Department of Transport
EAS ..... Early Alert System
EEZ ..... Exclusive Economic Zone
EMO..... Emergency Measures Organization
EMT ..... Emergency Medical Technician
FCO..... Foreign and Commonwealth Office
FCU..... Financial Crimes Unit
FIA ..... Financial Intelligence Agency
GDP..... Gross Domestic Product
GMDSS..... Global Maritime Distress and Safety System
HM ..... Her Majesty's
HMIC ..... Her Majesty's Inspectorate of Constabulary
IS..... Internal Security
ISPS ..... International Ship and Port Facility Security Code

JIU ..... Joint Intelligence Unit
KEMH..... King Edward VII Memorial Hospital
KP ..... Key Point
LPG..... Liquefied Petroleum Gas
LRIT..... Long Range Identification and Tracking
MOC..... Maritime Operations Centre
MOU ..... Memorandum of Understanding
NDC ..... National Disaster Planning Coordinator
NDP ..... National Disaster Planning Office
NGO ..... Nongovernmental Organization
OSU..... Operational Support Unit
PACE ..... Police and Criminal Evidence Act 2006
PAHO..... Pan American Health Organization
PCAT..... Police Community Action Team
PCSO ..... Police Community Support Officer
PESTLE..... Political, Economic, Sociological, Technological, Legal and Environmental
PMU..... Police Marine Unit
PSU..... Public Support Unit
RABS ..... Regimental Assistance to Bermudian Society
RACA ..... Regimental Assistance to the Civil Authority
RACM ..... Regimental Assistance to the Civil Ministries
RACP ..... Regimental Assistance to the Civil Power
RAIC ..... Regimental Assistance to the International Community
RCC..... Rescue Coordination Centre
SAR ..... Suspicious Activity Report
SOLAS ..... Safety of Life at Sea
SSAS ..... Ship Security Alerting System
SSM..... Soft Systems Methodology
STCW..... Standards of Training, Certification and Watch-keeping
SWOT..... Strengths, Weaknesses, Opportunities and Threats
TBI ..... TeleBermuda International Ltd.
TSA ..... Transportation Security Administration
UK..... United Kingdom of Great Britain and Northern Ireland
US ..... United States of America
VTS ..... Vessel Traffic Coastal Radar Surveillance

EXECUTIVE SUMMARY

Situation

This review undertaken by the National Security and Defence Review Committee ("the Committee") was to examine Bermuda's national security and defence. Its purpose was to act as a benchmark assessment of the current security measures in place against a wide range of threats and to make recommendations on how these threats may be mitigated or avoided.

National Defence and Internal Security

Bermuda is an isolated land mass and its small size underscores its vulnerability to potential natural and man-made disasters. For those reasons, the Island is obliged to try and ensure, so far as it is able to do so, that it has the resources and the strategies in place to address and mitigate such security threats.

National and private sector contingency plans have been in existence for several years. However, in light of an increase in terrorism, a rise in incidences of cybercrime, global threats arising from other sources, the scourge of gun and drug importation and the Island's porous borders, inter alia, there is an urgent need for Bermuda to re-examine the existing plans and strategies, to modernize them and to implement best practices for addressing these threats. This review seeks to suggest and to recommend ways whereby provisions for the peace, safety and security of the residents of Bermuda can be enhanced.

National Security Review Process

The Committee reviewed various natural and man-made threats that might affect the Island with considerable notice, little notice or no notice at all. Some of the threats that have the potential to impact the security and safety of Bermuda's residents are:

- end to conscription
- illicit drugs/gang activity
- cybercrime
- rioting/civil disturbance/public order events
- hurricanes and winter storms
- major cruise ship fire or accident/major aircraft incident/industrial fire

The above list is by no means exhaustive and the mitigation of these and other potential threats is addressed throughout the body of the Report.

The Committee deemed it appropriate to cover key emerging issues in the body of the Report by theme (National Defence, Border Protection, Law and Public Order, Emergency Measures and Public Safety, Acute Care and Public Health, Economic Security and

Environmental Security) and to list the stakeholders for each area as appropriate. A table of organizations and reports that were reviewed is at Annexe D. Additionally, there were recommendations that had cross agency concerns. These recommendations are listed below.

Summary of Recommendations

Recurring Cross Agency Concerns

The following recommendations were commonly raised and cited as the top priorities across several agencies:

Review the post conscription role of the Bermuda Regiment. It was recognized by various presenters and the Committee that a post conscription Regiment must continue to have the capability to provide support for agencies such as the Bermuda Police Service (BPS), Department of Corrections and Bermuda Fire and Rescue Service (BFRS).

Establish a National Intelligence Agency (exclusive of the Financial Intelligence Agency which is separately legislated). Existing resources and public service personnel can be used to create a multi-agency staffed National Intelligence Agency with the focus of developing an integrated intelligence database, intelligence products and actionable intelligence to improve investigative quality and services. The Agency's mandate should have the primary focus of targeting its work against prolific priority offenders and organized criminal enterprises.

Implement legislative and regulatory reform. Legislative and regulatory reform is required to facilitate modernized global standards of compliance and enforcement and best practice in threat reduction, national security and public safety.

Revise the EMO Mandate and Standing Instructions. The structure and working practices of the EMO must be revised and expanded to include greater emphasis on disaster preparedness and to develop effective spontaneous reactions to emergencies other than hurricanes that occur with almost no notice.

Update the Emergency Powers Act 1963. The Emergency Powers Act 1963 must be updated to make it relevant to current and future national disaster, defence and security planning and operations.

Establish a National Disaster Planning (NDP) office led by a National Disaster Coordinator (NDC). There was almost universal support by several agencies and presenters for the establishment of an office to build resiliency in the Island's approach to disaster planning and response under the leadership of the National Disaster Coordinator. The postholder would become an established member of the Emergency Measures Organization (EMO).

Adhere to international standards for vetting and hiring of all uniformed services. The Committee recognizes that inappropriate conduct across a minority of the uniformed

services (BPS, Department of Corrections, HM Customs, Department of Immigration and the Post Office) exists and that the constant perception of such undermines public confidence in the Island's internal and border security. The Committee recommends that standards for vetting and hiring be reviewed and that, where possible, higher international standards be implemented. The Committee further recommends that each of the uniformed services adopts anti-corruption policies where they are not currently in place.

Develop and implement effective performance indicators. Some Government Departments were able to provide the Committee with significant performance indicators to measure effectiveness of their respective operations. However, performance indicators were either unavailable for several other key Departments or agencies or were deemed to be otherwise ineffective by the Committee.

Review the responsibilities, budgets and resources of agencies. A review must be undertaken to determine the appropriate resources required for Departments and agencies in order for them to be compliant with international requirements of security and to position them so that they are able to achieve appropriate levels of public safety.

Establish inter-departmental and inter-agency procedures and protocols. Both oral and written presentations often overlapped between various Departments and agencies, thereby revealing the need for documented and approved inter-departmental and inter-agency procedures, protocols or Memoranda of Understanding in order to address problems successfully and to eliminate redundancy.

"Disaster preparedness" public education campaigns are needed. There was consensus amongst presenters and, a view that is endorsed by the Committee, that Bermuda must prepare best practice publications that cover all major natural and man-made disasters. These briefs must be made available via all main broadcast, social media, electronically and in print versions.

Continue to implement the recommendations from the Bermuda Government Parliamentary Joint Select Committee on the Causes of Violent Crime and Gun Violence in Bermuda. [1] The Report on the causes of violent crime and gun violence in Bermuda that was tabled in Parliament in July 2011 contains several recommendations for mitigating gang activity in Bermuda. It is critical that the recommendations contained in that Report continue to be implemented as a matter of priority.

Establish and coordinate a network of emergency relief centres across the Island. There was widespread support amongst a cross-section of stakeholders for PCATs to work closely with medical service providers, local volunteer relief agencies and charities to establish predetermined emergency relief centres across the Island, along with a network of professionals and volunteers who can provide assistance to vulnerable persons who are geographically isolated during or in the aftermath of an incident across the Island.

[1]Bermuda Government Parliamentary Joint Select Committee on the Causes of Violent Crime and Gun Violence in Bermuda report to Parliament, July 2011.

A national threat analysis must be conducted. A full threat analysis benchmarking Bermuda's current threats must be conducted and updated periodically (i.e. every ten years) in the event of an occurrence which may alter the standing of existing or emerging threats.

National Defence

Bermuda Regiment

Implement a phased approach to the abolition of conscription. The Bermuda Government has announced its intention to abolish conscription. However, certain less publicly visible aspects of national defence, internal security and disaster relief currently provided by the Regiment might not be easily transferrable to, or absorbed by, other Government Departments or emergency services, either in part or as a whole.

The Committee recognizes the cost implications associated with the transition from a volunteer force supplemented by conscription to an all-volunteer force. It is critical that the transition from a volunteer force supplemented by conscription to an all-volunteer force be carried out over a period of time that preserves those national defence, internal security and disaster relief functions provided by the Regiment currently or in the future, subject to this review.

Change the mission and strategic role of the Bermuda Regiment. Given the announced plans to end conscription, the Regiment must refocus its role to make it more relevant to the realities of today's world and situation in Bermuda.

Border Protection

HM Customs

Expand and update the HM Customs mandate to create a Customs and Border Protection Agency with legislated responsibilities for all enforcement measures relating to the movement of people and goods across borders. Having an effective Customs and Border Protection Agency is critical to Bermuda's national security and to its reputation as a quality international financial centre. The mandate for HM Customs must be expanded and updated to give legislated responsibilities for enforcement measures relating to the movement of people and goods across borders.

Conduct a review of Bermuda's border control and protection needs and take the required steps to address the gaps as a matter of urgency. To ensure that Bermuda is compliant with international requirements relating to border control and protection, the gaps in the current border control and protection regime need to be addressed as a matter of priority. This process will require a comprehensive review of Bermuda's border control and protection requirements to determine the precise scope and provisions of the

legislative and operational framework required, along with the attendant manpower and other resources.

Enhance the current arrival screening processes. The procedures for screening passengers and goods arriving in Bermuda by private aircraft, yachts and other marine craft must be enhanced to prevent illegal travel and to prevent contraband from entering Bermuda.

Exclusive Economic Zone (EEZ)

Conduct a review for the establishment of a protective zone for the EEZ. There is a need to establish a zone around the Island for the protection of Bermuda's valued marine life, while at the same time providing an avenue for security forces to interdict illicit offshore activities. Additionally, the establishment of a protective marine reserve must not negatively impact the commercial livelihood of the local fishing industry. Further research is required to determine the economic implications of a protective marine zone around the Island. The inability for Bermuda to mine its marine resources within its own EEZ in the future is a concern that must be mitigated.

Expand the Regiment's existing Boat Troop capability in an enforcement role to protect the EEZ and improve internal security. Some transit through the EEZ consists of legitimate trans-Atlantic marine vessels, but there are vessels entering Bermuda's EEZ to fish illegally and to transit, transfer and import contraband. A limited interdiction and enforcement capability also exists for Bermuda's inshore area. The expansion of the Regiment's Boat Troop or other designated resources to work with a Customs and Border Protection Agency and fishery authorities is seen as a positive step in addressing such matters. The Committee notes in this regard that the Regiment currently has the ability to operate effectively on inshore waters and could expand its equipment and expertise in order to protect the Island offshore in those areas where most marine activity occurs and, perhaps, ultimately throughout Bermuda's EEZ.

Department of Immigration

Develop appropriate departure screening processes and ensure that adequate information can be made available to address the risks effectively. Bermuda must take measures to institute its own checks on departing passengers as part of the responsibilities of the Customs and Border Protection Agency. To ensure that existing gaps in relation to departing passengers are addressed effectively and efficiently, there must be mechanisms in place to ensure that relevant information is available and shared on a timely basis. Ensuring that appropriate cross agency MOUs are in place and that there is cross agency access to required databases are important in this regard.

Develop appropriate mechanisms to monitor visitor lengths of stay in Bermuda. The Department of Immigration must develop appropriate mechanisms to monitor the length of stay of visitors.

Develop processes and procedures to address violation of Immigration policies. It is important to put in place effective processes to locate persons who overstay their allotted

time on the Island and to address violations of Immigration policies using the resources of the Department of Immigration and/or the proposed Customs and Border Protection Agency,

Department of Marine and Ports Services

Establish effective marine surveillance for the western portion of the Island. The eastern and central portions of Bermuda's inshore waters are well covered by two radar installations based in St. George's and at Gibb's Hill in Southampton respectively. More effective marine coverage for the western end of the Island is needed.

Expand the use of Marine Automatic Identification System (AIS). The Government should consider making it compulsory for all vessels travelling beyond the barrier reefs surrounding the Island to be equipped with the Marine Automatic Identification System (AIS).

Department of Airport Operations

Increase the security of the LF Wade International Airport. Increased physical security of the operations, passenger terminals and perimeter of the LF Wade International Airport is required.

Law and Public Order

Bermuda Police Service (BPS)

Continue the implementation of the Report of Her Majesty's Inspectorate of Constabulary (HMIC) and other strategic reports on BPS. The BPS is generally regarded in a positive light by the people of Bermuda who recognize and respect its primary role in the maintenance of law and public order. The implementation of the HMIC Report and other strategic reports, including the current anti-gang strategy and current operational policing plans, must be continued.

Reallocate the Police Marine Unit to another agency. The Marine Unit of the BPS is an area of BPS operations and resources that should be reallocated to another agency or agencies, including the Regiment, as part of an overall strategy to improve border protection, including the enforcement of marine laws and operational effectiveness.

Reallocate the Court Liaison Unit. The Court Liaison Unit is another area of BPS operations that should be reallocated to another Government Department, the private sector or a combination of both.

Reallocate other non-core, non-law enforcement roles. Several other areas of BPS operations and resources, including but not limited to explosive ordnance disposal, search and rescue diving, static guards and vehicle maintenance, should be reallocated to the Regiment or another Government agency, the private sector or some combination thereof.

Ensure the Island's ongoing ability to respond to outbreaks of public disorder. It is imperative that the Island's scaled response capabilities (currently BPS followed by Regiment) be preserved.

Establish a National Intelligence Agency (exclusive of the Financial Intelligence Agency which is separately legislated). Existing resources and public service personnel can be used to create a multi-agency staffed National Intelligence Agency with the focus of developing an integrated intelligence database, intelligence products and actionable intelligence to improve investigative quality and services. The Agency's mandate should have the primary focus of targeting its work against prolific priority offenders and organized criminal enterprises.

Develop up-to-date criteria for identifying the island's Key Points to be protected during an internal security situation, a disaster contingency or recovery planning. The Regiment and the BPS have typically collaborated on the identification of KPs. This collaboration needs to continue and be expanded to other agencies as appropriate to include the wider range of threats outlined in this Report.

Register and license large public events. Large public events like outdoor concerts do not currently require a license. However, these large gatherings present a significant risk to public safety and to those marshalling crowds. The requirement to register large gatherings and to have effective risk mitigation measures in place prior to the commencement of such events is vital.

Establish a single emergency call and dispatch centre. The Island's emergency services currently operate with separate emergency call reception and first response dispatch operators. The establishment of a single emergency call centre and uniformed services dispatch centre would both streamline the process of tasking emergency first responders and improve the situational awareness of separate services for incidents.

Department of Corrections

Develop and implement required policies and procedures to improve correctional facilities' security. There appears to be an ad hoc approach to security procedures within the Department of Corrections that cannot address the systemic security issues effectively, especially when they pertain to breaches of the facilities' perimeters, the infiltration of drugs and other contraband into the facilities and ongoing gang rivalries and activity within the facilities. This situation requires urgent improvement.

Procure adequate equipment for the surveillance of the correctional facilities' perimeters. Additional surveillance equipment must be acquired in order to reduce contraband entering the correctional facilities.

Draft contingency plans for the emergency housing of inmates. Corrections authorities must draft appropriate contingency plans for the emergency relocation of inmates from each of the correctional facilities for implementation and use as disaster circumstances warrant.

Emergency Measures and Public Safety

Emergency Measures Organization (EMO)

Establish a National Disaster Planning (NDP) office. The Committee strongly recommends that a National Disaster Planning (NDP) office be formed that will oversee the Island's national disaster planning and recovery as well as the coordination of the security services in this regard. The Committee recommends that the NDP be staffed with appropriate personnel led by the National Disaster Coordinator (NDC), supported by technical officers and administrative staff as necessary from existing posts within Government. The NDC must be a member of the EMO and report directly to the Minister.

Update the Emergency Powers Act 1963. The Committee recommends that the Emergency Powers Act 1963 be updated to make it relevant to current and future national disaster, defence and security planning and operations. It is the Committee's view that new legislation should put the EMO on a firm legislative footing by prescribing specific powers for the authorities pre, during and post event and provide for planning, public order and safety at large scale events.

Update the EMO Mandate and Standing Instructions. The structure and working practices of the EMO must be revised and expanded to include greater emphasis on disaster preparedness and to develop effective spontaneous reactions to emergencies other than hurricanes which could occur with almost no notice.

Review the EMO Executive and second tier structure. It is recommended that the EMO re-examine its Executive and second tier structure to ensure that all key agencies (Department of Health, Bermuda Hospitals Board's Mass Casualty Response Unit, etc.) are appropriately represented, thereby maximizing efficiency in an EMO scenario and response.

Establish Memoranda of Understanding with international agencies. There is a need to review and update existing Memoranda of Understanding (MOUs) or to develop MOUs with the relevant international bodies, including humanitarian agencies such as the Red Cross, to ensure rapid response to critical incidents impacting both the local population and foreign nationals.

Make provision for the special needs of seniors and vulnerable persons. Bermuda has a sizeable population of persons aged 65 and older, many of whom experience varying levels of health and mobility. Special consideration must be given to the needs and care for this segment of the population in the event of a national emergency or major critical incident impacting the Island.

Develop up-to-date criteria for identifying the island's Key Points to be protected during an internal security situation, a disaster contingency or recovery planning. The Regiment and the BPS have typically collaborated on the identification of KPs. This collaboration needs to continue and be expanded to other agencies as appropriate to include the wider range of threats outlined in this Report.

Disaster preparedness information must be updated and public education campaigns implemented. There was consensus amongst presenters and, a view that was endorsed by the Committee, that Bermuda must prepare best practice publications that cover all major natural and man-made disasters. These briefs must be made available via all main broadcast, social media, electronically and in print versions.

Networks of emergency relief centres must be established. There was widespread support amongst a cross-section of stakeholders for PCATs to work closely with medical service providers, local volunteer relief agencies and charities to establish predetermined emergency relief centres across the Island.

Establish a contingency plan for handling mass casualties. The Committee was made aware that mass casualty training was undertaken by the KEMH team in conjunction with other agencies under full live exercise conditions. The Committee was less persuaded that the Island was equipped to deal with a very large-scale mass casualty event with casualties numbering in the hundreds. Appropriate contingency plans and/or MOUs with external agencies should be seriously considered. In addition, no contingency plan exists for the provision of life-saving medical supplies in outlying areas in the event that roads are impassable for vehicles. Relevant contingency plans must be established.

Improve communications with other emergency organizations. Include KEMH personnel in EMO and disaster planning drills. KEMH must be kept abreast of any 911 calls where the incident has the potential to require medical assistance. Currently, KEMH is not included in some emergency planning and is caught off guard at times when there are spikes in emergency registrations caused by incidents about which it has received no notice.

Bermuda Fire and Rescue Service (BFRS)

Implement the recommendations of the Sir Ken Knight 2010 Bermuda Fire Service Report and address other recently identified shortfalls. The BFRS received two independent reports on its capabilities and shortcomings in 2010. The BFRS should implement the recommendations of the Sir Ken Knight Report and also address the shortfalls outlined in the ARFF Audit Report 2010 which provided an in-depth review of the capabilities of the BRFS LF Wade International Airport Division.

Address the ongoing personnel shortages within the BFRS. The lack of available manpower was pointed out in each of the above-mentioned reports. The Committee understands that manpower shortage issues have been an ongoing challenge for the BFRS.

Review resources required in order to handle a cruise ship or large structural fire effectively. The Committee recommends that the BFRS review the resources that it would require in the event of a serious incident aboard one of the mega cruise ships that make weekly stops in Bermuda between April and October each year. The BFRS also must conduct a review to determine the resources required in the event of a fire or explosion in one of the multi-storey buildings that now exceed its current capabilities.

Upgrade emergency medical technicians to paramedics and implement legislation to recognize paramedics in Bermuda. This recommended upgrade would improve and enhance lifesaving capabilities for medical first responders.

Department of Works and Engineering

Enhance security at reservoirs. Recognizing the risks associated with contamination of the reservoirs, the Committee recommends that immediate attention be given to securing these facilities.

Provide for training of additional operators of water plants. The Committee, recognizing that the Island's water plants were not automated and that the normal operators might be prevented from reaching the facilities during a major hurricane, for example, agrees that Regiment and/or other emergency services' personnel should be trained to operate the plants on a stand-by basis.

Ensure availability of cement supplies during times of disaster. The Committee recommends that Government pursue a formal agreement with the owners of the Island's sole cement-producing facility that would ensure the immediate availability of concrete supplies should they be required following a hurricane or major disaster.

Ensure protection of persons who live on coastline or in other low-lying areas of Island. The Committee noted the risks faced during hurricanes by persons who lived close to the coastline or in other low-lying areas of the Island. The Committee agrees that every measure should be taken to ensure the early completion of flood modeling work that would provide up-to-date data on risks associated with living in such areas during times of tidal surge. The Committee believes that such data would greatly assist the authorities in ensuring the safety of residents in these areas.

Department of Parks

Ensure availability of equipment and vehicles during times of disaster. The Committee expressed concern that the unavailability of equipment and vehicles as they awaited repairs or replacement could militate against the Department's ability to respond as required during post-disaster clean-up exercises. The Committee recommends that every measure be taken to improve the speed and efficiency of the equipment and vehicles repairs or replacement process in order not to compromise the Department's ability to perform expeditiously and efficiently following a hurricane or similar disaster.

Office of Occupational Safety and Health

Strengthen Occupational Safety and Health legislation. Companies that deal in dangerous goods or pressurized containers are governed principally by self-regulation. Too often, such companies do not fulfil their obligations to operate in a safe manner, with the result that members of the public are placed at great risk. Legislative changes are required to ensure that these companies operate in a safe manner and to ensure that there is an effective enforcement regime in place.

Improve safety training and qualifications for Marine and Ports staff. The Committee is aware that Marine and Ports staff on ferries and other vessels receive some first aid and firefighting training to local standards. The Committee recommends that at the very least, all Marine and Ports operational staff are trained to STCW international safety certification standards.

Develop a long-term plan to build the resources of the Office of Occupational Safety and Health over time. The Office for Occupational Safety and Health lacks sufficient staffing and other resources that would allow it to carry out its legislative remit effectively. The broad scope of the office's responsibilities requires increased support in order for it to reduce the potential for industrial accidents.

Acute Care and Public Health

King Edward VII Memorial Hospital (KEMH)

Develop sustainable ambulance capability. The mechanical reliability of the BHB ambulance fleet is poor. It is essential that consideration be given to achieving a sustainable ambulance capability on the Island.

Establish locations for portable mass casualty treatment facilities. In the event of a mass casualty incident at a remote site, KEMH is likely to establish a hub at the scene to deal with the less serious injuries, with only the most serious incidents transferred to the hospital for treatment.

Increase the numbers of medical personnel on duty during emergencies. The number of doctors and nurses on duty during an emergency is currently inadequate and should include private practitioners in order to provide sufficient coverage for clinics, leave and training. Without this increase, KEMH will be left exposed at these times.

Department of Health

Develop an appropriate medical equipment maintenance schedule. Regular maintenance, instead of reactive repairs, is needed for medical equipment and facilities to ensure that emergency services continue to function at optimal capacity during a sustained disaster.

Develop a plan to promote increased collaboration within the Department of Health. The Department of Health has approximately 300 personnel under its remit. However, there is little evidence of established cooperation with other Departments or agencies.

Improve procedures for monitoring the overuse of some medicines which result in drug resistant strains of bacteria. Stronger procedures are needed to curtail the over prescription and overuse of some medicines, particularly antibiotics, which can result in drug resistant strains of bacteria which tend to proliferate in the wake of mass casualty occurrences or pandemics.

Develop a climate change adaptation plan which addresses public health, inter alia. Bermuda has no complete climate change adaptation plan which includes planning for health threats posed by extreme weather events or changing sea levels.

Consideration must be given to relocating the Somerset Health Clinic due to its low-lying location and its susceptibility to flooding. Consideration should be given to an alternative location for the Somerset Clinic. An alternative location might double as a mass casualty treatment centre for the west end of the Island.

Work with PAHO to increase medicine stocks. PAHO should be made aware of the shortages of some medicines caused by the huge increase in the number of surgical procedures. Given its size and isolation, Bermuda should make application for an increased stock of these medicines.

Economic Security

Financial Security

Update Bermuda's asset forfeiture regime. The Government must undertake further revisions to Bermuda's asset forfeiture regime to ensure that the maximum level of funds from assets confiscated or forfeited can be realized on a timely basis. These revisions are particularly relevant as the monetary value of suspicious transactions reported to law enforcement authorities over the past 18 months has grown considerably.

Increase staffing and other resources for the Financial Intelligence Agency (FIA) and the Financial Crimes Unit (FCU). Increased staffing and other resources must be allocated to the FIA and the FCU to combat increasing incidents of white collar and financial crime, particularly given the need for Bermuda to achieve a higher level of compliance with international requirements.

Business Continuity

Business associations should work with the NDP to create a business continuity plan. Local and international business associations should combine and meet with the NDP to develop such plan.

Coordinate outgoing communications with business associations during times of disaster. Given Bermuda's position as a highly regarded international financial centre, there is a need for outgoing communications following a disaster to be well managed so that information disseminated portrays the situation accurately and responsibly and does not undermine Bermuda's reputation as a stable financial jurisdiction.

Information Technology, Data Security and Telecommunications

Update Bermuda's current legislation and develop the necessary protocols for international cooperation to enable the Island to address cybercrime effectively. Gaps in current legislation, resources and expertise leave Bermuda susceptible to undetectable cybercrime

and vulnerable to loss of business, data, money and sensitive Government information. Steps must be taken to address these challenges.

Develop appropriate legislation to mitigate telecommunications fraud. One of the topics raised by telecommunications service providers and the business community was the growing concern with telecommunications fraud and the negative effect it can have on businesses domiciled in Bermuda. The required legislative reform must be progressed.

Environmental Security

Energy Security

Establish alternative energy sources. Bermuda must promote the continued use of alternative sources of renewable energy, such as solar, wave and wind power, for both business and individual households, in order to diversify the sources of energy for the Island.

Diversify the current single generating capability across multiple locations. Bermuda Electric Light Co. (Belco) should consider the feasibility of locating its generating capacity across several locations on the Island in the event that the St. John's Road plant experiences catastrophic failure.

Food Security

Review the establishment of a commercial fishery industry. The establishment of a commercial fishery industry with an onshore processing plant should be explored. This provision will encourage the utilization of the EEZ and could provide a great portion of the seafood that the Island currently consumes.

Monitor the emerging danger to Bermuda's inshore fish stocks and coral reefs due to the impact of lionfish. Working with other South Atlantic nations tackling the same challenges, Bermuda must develop a strategy for effective control of the lionfish population that currently threatens its inshore fish stock and coral reefs.

Improve the administrative and legal framework for local agriculture and encourage the development of innovative agricultural practices. Improvements in the administrative and legal framework for agriculture could mitigate risks to food security, assist in the sustainable development of agriculture and potentially provide employment for Bermudians through modernization of farming techniques and the provision and protection of incentives to encourage the full utilization of arable farmland.

Develop a plan for emergency food distribution. Contingency plans must be developed with food importers and retailers for the sourcing and disbursement of emergency food supplies, if needed, in the event of a sustained interruption of food imports to the Island resulting from a local or international disaster.

Bermuda Weather Service

Establish a National Weather Service. Bermuda Weather Service is a private entity and not the official forecasting service for the Island. Bermuda has been without an official weather service since the closure of the US base in 1995. The Committee believes that there is considerable merit in creating such a service and it urges that a feasibility study be undertaken as a matter of priority.

Install a backup Doppler Radar System. BWS has an ageing system that has been affected by the humid and salty atmosphere and is thus subject to breakdowns. Repairs can take weeks, a timeline which impacts the ability to provide critical predictions. A less expensive back-up system should be installed as soon as is possible.

Establish an Early Alert System (EAS).[2] There is need for further research into the efficacy of, and potential use of, an audible early warning system that could be used in conjunction with any emergency response to prepare the Island for an approaching disaster of significant magnitude. There were recurring concerns expressed by presenters that the Island was not currently well served in terms of warnings for unexpected severe weather or a disaster that could occur at almost no notice.

The Way Forward

The Committee does not presume to answer all questions that emerged during oral presentations and in written submissions. However, the Report highlights the key issues identified, including those which do not immediately appear to be serious but which, if left unchecked, could have an extremely serious and negative impact on the Island's safety, security and prosperity.

[2]EAS is the term that the **International Early Warning Programme** coordinated by the **United Nations** uses for all systems that are used to send emergency population warnings. EAS is often activated when an unpredicted emergency such as a tsunami, tornado, earthquake, or other natural disasters occur. The vast majority of EAS alerts are generated by the National Weather Service. *Source: Wikipedia, the free encyclopedia.*

Part One: National Security Review Process

National Security Defined

There is no single universally accepted definition of national security. The concept has evolved from earlier definitions which initially emphasized freedom from military threats, acts of war and the maintenance of public order. In recent years, the scope of national security has broadened to include:

- Political stability and social security — specifically, the maintenance of political and social order.
- Economic security — in today's complex global environment, economic security encompasses international trade and other multi-national agreements, the availability of natural resources and the freedom to exercise choice in policies to develop a country's economy for the creation and protection of national and personal wealth.
- Environmental security — resources include water, sources of energy, land and minerals. Availability of adequate natural resources is important for a country to develop its resources and economic power.

In the context of Bermuda, national security is a function. It is not specifically defined in Bermuda's Constitution, but the following 'special responsibilities' of the appointed Governor are referred to in Section 62 (1) of the Constitution: external affairs, defence, including the armed forces, internal security and the police. The Constitution makes no provision for there to be a 'National Security Minister'. At various times, the Government has chosen to appoint, for example, a Minister of Labour, Home Affairs and Public Safety who has been assigned responsibility for national security or a Minister of National Security, as is the case currently.

For the purposes of this Report, the concept of national security is wide reaching. It encompasses defence, armed forces, internal security, police, social, economic and environmental security and public safety. It includes also preparation for natural disasters and other catastrophic events that have the potential to cause severe environmental, economic, health and safety dangers to the citizens of a country.

This Report addresses, in particular:

- natural and man-made disasters
- public health and safety
- internal security and public order
- border protection
- subsistence provisions for residents
- security of seniors and vulnerable persons
- local and international crime, including money laundering and fraud
- possible damage to Bermuda's reputation as a prime tourism and international

business jurisdiction resulting from weaknesses in response capabilities to threats (real or perceived) in these areas.

Mission of Committee

This review by the National Security and Defence Review Committee ("the Committee") was undertaken to examine Bermuda's national security and defence. Its aim is to act as a benchmark assessment of the current security measures in place against a wide range of threats and to make recommendations on how these risks may be mitigated and overcome.

National Security and Defence Review Committee Terms of Reference

The Committee was established in May 2013[3] by His Excellency the Governor, Mr. George Fergusson, and the Hon. Michael H. Dunkley, JP, MP, then Minister of Public Safety, to:

1. Undertake a review of Bermuda's national security needs;
2. Assess the resources required to meet these needs; and
3. Make recommendations on the structures, resources and organizations required.

The Committee's Terms of Reference set by His Excellency the Governor are at Annexe A. The Committee Members and their biographies are at Annexe B.

Purpose

The review established by His Excellency the Governor is designed to identify the areas in which Bermuda must enhance its capability to protect the security and safety of the public. The review takes into account the maintenance of law and order, protection in relation to natural and man-made hazards, current technological advances with regard to the protection of borders and Key Points, the possibility of transport accidents on land, sea and in the air and the mitigation and management of other risks that might result in mass casualty. The review takes into consideration, inter alia, current and potential future roles of the EMO, uniformed services, other Government Departments and agencies and some private sector entities in the context of national defence, security and safety.

The review also includes consideration of previous reviews, policies and other documents drafted for various agencies as well as updated submissions from public agencies, key stakeholders and members of the general public. It is hoped that information shared and conclusions drawn during the review process will serve to formulate a cohesive and comprehensive national policy that encompasses all relevant stakeholders and is reflective of the current and future security needs of Bermuda.

[3]NSDCs letter of appointment.

Background

Over the past 35 years or so, the Bermuda Government has commissioned numerous landmark reports on social issues and various aspects of national security that have the potential to impact Bermuda's political/social stability and its reputation as a financially stable jurisdiction. This Report will be the first of its kind to address fully and comprehensively the security and physical safety of the people of Bermuda.

During the consultation process, the Committee learned of the existence of an incomplete National Security Plan drafted in 2008[4]. The draft plan did not benefit from the wide consultative remit accompanying the current review and was not presented to Cabinet at the time for action.

Global Perspective

National security approaches for the British Overseas Territories: Turks and Caicos Islands, Falkland Islands, Cayman Islands, Anguilla, Gibraltar and Bermuda and how these compare to the larger countries of Canada and Australia.

The events of 11 September 2001 (known as 9/11) created a need for countries to rethink what national security really is, how it is or should be defined and how we are all increasingly dependent on each other for that security. The forces of globalization, including the development of technology and the general scale of environment-impacting human activity on our planet, reinforce the importance of reviewing and developing a coherent national security policy in Bermuda. Many other Overseas Territories have come to a similar conclusion since 9/11; consequently, border security and disaster management in British Overseas Territories have improved greatly since that fateful day. This has been especially true in Bermuda, the Cayman Islands and Gibraltar. The following is a review of disaster planning and national security approaches and policies for British Overseas Territories that are similar to Bermuda, with common internal and external threats.

In 2007, the Foreign and Commonwealth Office (FCO) undertook a review of Bermuda and other Overseas Territories with the intent of managing risks in the United Kingdom (UK) Overseas Territories[5]. The ensuing report identified some commonalities and various risk mitigation that individual Overseas Territories had taken with respect to social and economic reform. However, that report was not a comprehensive overview of the jurisdictions' abilities to manage the vast array of risks relating to the security and safety of the respective jurisdictions. The Committee's Report will address the physical, environmental and internal security of Bermuda, seniors' needs and the Island's health provisions.

[4]Burchall, L, 2008. "National Security Plan for Bermuda" : report prepared for the Ministry of Home Affairs, Immigration, Public Safety and Housing

[5]Foreign and Commonwealth Office: Managing Risks in the Overseas Territories: UK House of Commons Committee of Public Accounts Seventeenth report of Sessions 2007-08

Comparable Threats to Bermuda[6]

Jurisdiction	Key Threats
Bermuda	Hurricane, Cruise Ship Incident
Anguilla	Hurricane, Flooding
Cayman Islands	Hurricane, Earthquake, Flooding, Cruise Ship Incident
Falkland Islands	Cruise Ship Incident, Risks to Shipping
Gibraltar	Transport Incidents, Civil Contingencies
Turks and Caicos Islands	Hurricane, Flooding, Cruise Ship Incident

Disaster Management

The Overseas Territories listed in this jurisdictional review prepared for the purposes of this Report now have at least a draft National Disaster Plan that responds to their main risk events. Many now have dedicated disaster management agencies, similar to Bermuda's EMO, that are staffed by full-time officials. However, there are still areas of weakness, as most Territories' plans do not yet cover all elements of the disaster management cycle of preparedness, mitigation, response and recovery. Additionally, some local legislation and policies lag behind good practice. This is true even for Bermuda.

It would appear that the reason for this lag in good practice is that the Territories have not based their plans on a clear disaster management policy which includes how they ensure that their communities are ready for the next disaster and their measurement of effectiveness. There is also a lack of up-to-date local legislation equivalent to the UK Civil Contingencies Act 2004 which establishes clear roles and responsibilities for those involved in emergency preparation and response and puts in place emergency powers based on assessment of current risks. However, disaster management-specific legislation has been implemented in Anguilla, the Cayman Islands and the Turks and Caicos Islands as of 2007. Additional research needs to be done to confirm the implementation or further development of legislation in these and the other Territories.

Border Security and External Threats

The increase in border security in the jurisdictions reviewed in this Report has been the result of not only concerns that arose from 9/11, but also from increasing illegal immigration issues and continued encroachment and poaching of fish from territorial waters.

Compliance with international and US standards for border security, airport security and marine and port security has been a condition for Bermuda to maintain its US Customs and Border Protection Pre-clearance facility at LF Wade International Airport and for allowing the continued free flow of commercial shipping traffic between the US and Bermuda.

[6] Information obtained from National Audit Office (NAO) Report on Overseas Territories, page 16.

The FCO, the UK Department for international Development (DFiD) and the UK Department of Transport (DOT) have been charged with helping the Overseas Territories to raise their aviation and maritime safety standards and ensure they are internationally compliant. Most of the Territories listed in this jurisdictional review, with the exception of Anguilla, have raised their standards and are compliant. However, there are still areas that could use improvement in Bermuda, as identified in this Report.

Comparison of approaches to National Security with Canada and Australia post 9/11

Following the 9/11 attacks, many countries, including the Overseas Territories, Canada and Australia, implemented sweeping changes to national security legislation and policy. Prior to 9/11, Canada and Australia looked at national security from different perspectives, Canada from a more human security[7] perspective and Australia from a more regional security perspective.

Since 9/11, both Canada and Australia implemented national security legislation, policy and infrastructure that provide better coordination of foreign and defence policies, immigration and crime legislation in the emerging broader security environment.

Both countries focused on six strategic areas as the core elements of their national security interests:

- intelligence
- emergency planning and management
- transport security
- border security
- international security
- public health

This jurisdictional review assisted the Committee's work and in the consideration and preparation of this Report, the Committee has largely followed the strategic areas outlined above, although within the confines of Bermuda's different Constitutional and legislative structure.

The evolution of the many and varying strategies whereby national security throughout the post-9/11 period might be enhanced highlights the complexity and challenges that all countries face in this new and complex security environment. The events of 9/11 are stark reminders that security is the number one social service that governments must provide to their people.

[7]Human security being defined as: "…safety from chronic threats like hunger, disease and repression and protection from sudden and hurtful disruptions in the patterns of daily life." United Nations Development Report, 1994.

Bermuda Country Profile Analysis (PESTLE Analysis)

For the purposes of the Report, Bermuda was profiled using the PESTLE (Political, Economic, Sociological, Technological, Legal and Environmental) analysis technique.[8] This audit examined Bermuda's infrastructure and its resident population in order to assist in understanding its ability to deal with a range of national crises. The PESTLE analysis served to identify the range of threats to be considered and the potential impact on the Island. The PESTLE analysis also assisted in the identification of key stakeholders with whom consultation was required during the review process. Key points from the evaluation are summarized below to assist with contextualizing the issues referred to in this Report.

A PESTLE analysis is an audit of an entity's profile to assess its capabilities for response in the face of potential crises or major changes, taking into consideration the macro and meso circumstances that impact the entity. In the context of Bermuda, macro circumstances can include size, climate, geographical location, political dependency, global economic circumstances, etc. that potentially impact the security or well-being of the population, but over which there is no degree of control. Meso circumstances can include the country's internal social, political, legal and economic framework and other decision-making processes over which there is some degree of control. By understanding both the macro factors (what we cannot control) and meso factors (what we can control), it is possible to provide an analytical framework to contextualize issues raised with respect to Bermuda's security and defence and to identify ways whereby opportunities might be maximized and threats mitigated.

Consideration of the factors contained in the PESTLE analysis is essential when a risk identification and mitigation strategy is under development, as a failure to apply possible solutions without this vital context greatly reduces the possibility of maximizing opportunities and minimizing threats. It must also be recognized that there are some circumstances that make an impact over which there is some degree of control and some circumstances which make an impact, but which cannot be controlled.

Political Overview

The PESTLE political analysis for Bermuda includes an explanation of the country's Overseas Territory dependency status, Constitution, political framework, international associations and international relations. It also includes an overview of its internal security and national defence mechanisms.

Economic Overview

The PESTLE economic analysis for Bermuda includes an overview of its GDP, currency and economic conditions, revenue sources, aspects of its internal and external trade and its transport infrastructure.

[8]What is PESTLE analysis? [online]: http://home.kku.ac.th/petmas/What%20is%20a%20PEST%20analysis.pdf

Sociological Overview

The PESTLE sociological analysis for Bermuda includes an overview of the demographic makeup of the Island, population statistics, education and health profile for the country.

Technological Overview

The PESTLE technological analysis for Bermuda addresses its communication and telecommunication network and its sources of energy.

Legal (Constitutional) Overview

The PESTLE legal (constitutional) analysis includes an overview of the legal framework within which Bermuda operates and an overview of its constitutional changes.[9]

Environmental Overview

The PESTLE environmental analysis for Bermuda includes an overview of the Island's geographical coordinates, geography, climate, natural resources, physical hazards and surrounding waters.

The full PESTLE Analysis is at Annexe C.

Consultative Methodology

The establishment of the Committee and its mandate were widely advertised. Many organizations and members of the public met with the Committee to discuss matters pertaining to critical incidents involving natural or man-made disasters, various stakeholder response capabilities to these contingencies, perceived risks to these responses and recommended measures to mitigate these risks. In addition, the Committee invited written submissions from members of the public.

The Committee met with 85 presenters and reviewed in excess of 90 pertinent written submissions and 20 ancillary and background reports during the course of the review. A table cataloguing all presenters and submissions is at Annexe D.

Soft Systems Methodology (SSM)

The Soft Systems Methodology (SSM)[10] approach was used to gather, store and analyze information presented to the Committee during its consultative phase. SSM is a qualitative framework that provides a systemic approach for tackling real-world problematic situations that lack a formal problem definition and was consequently felt to be ideally suited to the Committee's needs. Information was collected from various sources, including reference material, written submissions, oral discussions, site visits

[9]Bermuda Constitution 1968

[10]"Soft System Methodology", Peter B. Checkland, Jim Scholes, John Wiley & Sons Australia, Limited, 1990–Science–329 pages

and ad hoc presentations, and analyzed in the context of Bermuda's country profile to identify potential threats and various stakeholders' ability to respond to them. These threats, or emerging issues, were then further analyzed through SWOT and Gap Analysis in order to consider viable options, draw conclusions and make recommendations where appropriate.

While the strength of the written submissions was generally of a very high standard and factually correct, the Committee gained the most illuminating source of information during oral presentations. The Committee concluded that many presenters were far more comfortable discussing the real issues than committing their concerns to paper. Some comments were made under a caveat of confidentiality. However, information shared by the vast majority of presentations was corroborated by other conversations or communications with relevant parties, so the integrity of the information gathered was felt to be extremely reliable. Where presenters requested confidentially, their views are not attributed in the Report.

It was the Committee's view that its composition, a unique blend of members' specialties, backgrounds and experiences, played a key role in encouraging the presenters to share their views willingly, candidly and frankly. The myriad skills and experience sets offered by the Committee also facilitated easy identification of key concerns and the need to pursue relevant lines of enquiry with other agencies.

Threat Analysis Methodology

Risk Matrix

A threat analysis for Bermuda was included in the draft National Security Plan that was produced by the Department of Defence in 2008. However, as that plan did not benefit from the wide consultative process underpinning this Report nor was it approved by Cabinet, the threat analysis contained in that report cannot be cited as a reliable reference. Further, circumstances have changed enormously during the past five years, particularly with respect to the economic downturn and advances in technology.

The Committee therefore deemed it reasonable to anticipate that new threats had emerged since completion of the 2008 draft plan. The Committee catalogued all threats that had been raised during the review process and conferred with the heads of the BPS, the Bermuda Regiment, the Bermuda Fire and Rescue Service, King Edward VII Memorial Hospital and the Bermuda Weather Service on the potential impact of these risks. While this was a somewhat subjective exercise, it is considered by the Committee to be at the very least a useful reference point from which to debate the threats and to assess the status of the Island's security and safety.

Some of factors that have the potential to impact the security and safety of Bermuda's residents are:

- *End to Conscription*. Many persons in the community, some current and former members of the Bermuda Regiment in particular, believe that the end to conscription will have a deleterious impact upon Bermuda's political and social stability. They fear that abolition of conscription will result in the Island's diminished ability to maintain public law and order or to respond to public disorder. Critics of the proposal to end conscription also argue that the decision will impact negatively on the Island's pre- and post-emergency response capabilities during times of natural disaster or other major critical incidents.
- *Illicit Drugs/Gangs Activity*. Illicit drugs importation and usage which fuel much of Bermuda's crime place a huge demand on Government's resources in terms of budgetary and human resources allocations, in the areas of law enforcement, social services, public health, education, border protection and the judicial system in particular. These budgetary and human resources allocations are essential as the Island seeks to mitigate the negative impact of illicit drugs activity on its social and economic stability and its reputation as a safe jurisdiction for residents and visitors. These demands, combined with current economic challenges, will present a huge threat to Bermuda's long-term social, political and financial stability if not addressed as a priority.
- *Cybercrime*. Cybercrime has become a significant national security concern in that electronic information systems are vital for maintaining the national and financial security of any country. Unauthorized access to governmental or nongovernmental infrastructures can create a serious threat and have a negative impact on a country's political, economic and military security. This is especially important in Bermuda where the major industry centres around financial services.
- *Rioting/Civil Disturbance/Public Order Events*. High unemployment coupled with other social and economic problems within the community can impact the social and financial stability of the Island. Any social unrest or civil disturbance produces additional strain on Bermuda's overstretched uniformed services. Given Bermuda's GDP and its need to maintain its reputation as a socially and financially stable jurisdiction, ongoing high unemployment poses a significant threat to Bermuda's future sustainability.
- *Hurricanes and Winter Storms*. Hurricanes and tropical storms have had an impact on Bermuda from its earliest times. The initial colonization of Bermuda was a direct result of the 1609 hurricane in which the *Sea Venture*, an English ship bound for Jamestown, Virginia, ran aground here. A study of local records of storm damage from 1609 to the present day indicates the occurrence of a very severe storm, one resulting in major damage to property and vegetation, once

every six to seven years.[11] The Island has been fortunate in that major injury and loss of life have been relatively rare and the Island through the centuries has demonstrated its ability to recover relatively quickly from the impact of these occurrences. However, hurricanes and hybrid storms (i.e. hurricanes with tornadoes) have the potential to destroy food crops and other vegetation, to destroy homes and shelters and other structures and to disrupt services and other resources that are critical to Bermuda's ability to function as a socially and financially stable jurisdiction.

Residents generally are far less prepared for winter storms than they are in the case of hurricanes. However, these storms are often accompanied by hurricane strength winds and the potential for damage to persons and property is significant.

- *Major Cruise Ship Fire or Accident/Major Aircraft Incident/Industrial Fire.* The limitations of the Bermuda Fire and Rescue Service imposed by the Island's relatively small size and population lead to the risk of significant damage caused by fire. In particular, there is the view that Bermuda will not be able to handle a disaster like a fire aboard a cruise ship in port, an aircraft crash on or near the Island or a major chemical fire at one of the Island's industrial plants. Such safety gaps pose grave concern with respect to the Island's ability to ensure the safety of its residents and visitors and protection of industrial and residential premises.

The above list is by no means exhaustive and the mitigation of these and other potential threats such as health pandemics, severe weather, major accidents and other catastrophic events are addressed in other areas of this Report.

Committee Recommendation

Conduct a full threat analysis. Notwithstanding the informal analysis undertaken by the Committee and for the sake of clarity and completeness, it would be useful for the Government to conduct a full threat analysis, benchmark Bermuda's current risks and to update it periodically (i.e. every ten years) in the event of an occurrence which may alter the standing of these existing or emerging risks.

Emerging Issues

Key recurring issues identified during the consultative phase of the Committee's deliberations crossed numerous agencies. The Committee therefore deemed it appropriate to cover the key recurring issues in the body of the Report by theme and to list the stakeholders for each area as appropriate. In order to do justice to the remaining security issues at both the organizational and tactical levels, detailed

[11]"Hurricanes — General Information for Bermuda", Prepared by the Bermuda Weather Service

reports for respective agencies were compiled. A table of organizations and reports that were reviewed is at Annexe D.

Recurring Cross Agency Concerns

The following recurring themes were expressed in written and oral submissions by several presenters and agencies:

1. *Review the role of the Regiment post conscription.* It has been recognized that the Regiment post conscription must continue to have the capability to provide support for agencies such as the BPS, Department of Corrections and the BFRS.

2. *Establish a National Intelligence Agency (exclusive of the Financial Intelligence Agency which is separately legislated).* Existing resources and public service personnel can be used to create a multi-agency staffed National Intelligence Agency with the focus of developing an integrated intelligence database, intelligence products and actionable intelligence to improve investigative quality and services. The Agency's mandate should have the primary focus of targeting its work against prolific priority offenders and organized criminal enterprises.

   The Committee heard from several presenters, including the BPS, that there was a highly disjointed approach taken to *i*ntelligence gathering, dissemination and investigative actioning at the national level. The BPS has a robust intelligence infrastructure within its Intelligence and Tasking Division. Other agencies, such as HM Customs, Immigration and Corrections, have their own intelligence infrastructure, personnel and procedures of varying effectiveness. The Committee was told that critical intelligence reports had been withheld from agencies that would have benefitted from such, simply because of a lack of trust among some agency personnel. The result of such actions has only one beneficiary — the criminal. The Committee believes that it is altogether unacceptable that an island as small as Bermuda should have an ineffective intelligence regime.

4. *Institute legislative and regulatory reform in the area of National Security*. Legislative and regulatory review and reform are required to facilitate modernized global standards of compliance and enforcement and best practice in risk reduction, public safety and national security.

5. *Revise the current EMO Mandate and Standing Instructions*. The structure and working practices of the EMO must be revised and expanded to include greater emphasis on disaster preparedness and to develop effective spontaneous reactions to emergencies other than hurricanes that occur with almost no notice. This inclusion of subject matter experts such as KEMH and Bermuda Weather Service staff in planning and events is necessary, especially at the early stages of the event.

6. *Update the Emergency Powers Act 1963.* The Committee recommends that the Emergency Powers Act 1963 be updated to make it relevant to current and future

national disaster, defence and security planning and operations. It is the Committee's view that new legislation should put the EMO on a firm legislative footing, prescribe specific powers for the authorities pre, during and post event and provide for the planning of and public order at large scale events.

7. *Establish a National Disaster Planning (NDP) office led by a National Disaster Coordinator (NDC).* There was almost universal support for the establishment of an office reporting directly to the Minister with responsibility for national security which would be empowered to coordinate and direct the efforts of Government Departments and external agencies in disaster preparedness, planning and in the provision of post disaster relief. The work of the NDP, headed by the NDC, would include building strategic responses and planning across a wide variety of potential incidents and disasters. The office would also ensure that all relevant agencies and NGOs are involved in the planning and strategy development. The NDC would then be responsible for ensuring that the Island has a plan of response for each of a wide variety of possible threats. This recommendation is consistent with the Committee reviews of numerous overseas jurisdictions which have established security councils in recent years in response to changing global threats.

8. *Adhere to international standards for vetting and hiring of all uniformed services.* The Committee recognizes that perceived inappropriate conduct across the uniformed services (BPS, Department of Corrections, HM Customs, Department of Immigration and the Post Office) could seriously undermine public confidence in the Island's internal and border security.

9. *There is a need for effective performance indicators in several Government Departments.* Some Government Departments were able to provide the Committee with significant performance indicators to measure effectiveness of their respective operations. However, performance indicators were either unavailable for several other key agencies or Departments or deemed by the Committee to be otherwise ineffective. The Committee recommends that performance indicators be implemented across all Government entities that are subject to this Report (where they do not exist or are deemed ineffective).

10. *Undertake a review of the responsibilities, budgets and resources of agencies.* Budget cuts, particularly in areas of civil aviation, corrections, fire services, marine and border control, are impacting the agencies' abilities to meet required global standards of safety and security in areas of training, facilities and equipment, thereby undermining Bermuda's national security and the safety of its residents. Reviews must be undertaken to determine the appropriate resources required for these agencies to be compliant with international requirements of security and to achieve appropriate levels of public safety.

11. *There is widespread absence of inter-departmental and inter-agency procedures and protocols.* The Committee saw numerous instances of Government Departments and

other agencies operating in strict silos with very little sideways communication or collaboration. Presentations, both oral and written, often crossed boundaries with other Departments/agencies and revealed the need for input from other agencies if the desired outcomes were to be achieved. It was clear that problems often arose as a result of the absence of documented approved/established inter-departmental procedures, protocols or MOUs, with individuals relying on their colleagues' personality, goodwill and cooperation in order to address problems successfully.

12. *"Disaster preparedness" public education campaigns are needed*. There was consensus amongst presenters and, a view that is endorsed by the Committee, that Bermuda must prepare best practice publications that cover all major natural and man-made disasters. These briefs must be made available via all main broadcast, social media, electronically and in print versions.

13. *Continue to implement the recommendations from the Bermuda Government Parliamentary Joint Select Committee on the Causes of Violent Crime and Gun Violence in Bermuda.* [12] The Report on the causes of violent crime and gun violence in Bermuda that was tabled in Parliament in July 2011 contains several recommendations for mitigating gang activity in Bermuda. It is critical that the recommendations contained in this Report be implemented as a matter of priority. Gang rivalries cause managers acute scheduling problems and other logistical difficulties; they lead to lost hours of productivity, additional fuel and transport costs and a reduction in morale of those involved. Conflicts between rival gangs and gang vendettas frequently prevent those in gainful employment from moving freely around the Island for fear of attack by gang members. Moreover, incarcerated gang members appear to have ongoing influence on gang activity outside of the prison.

14. *Establish and coordinate a network of emergency relief centres across the Island.* There was widespread support amongst a cross-section of stakeholders for PCATs to work closely with medical service providers, local volunteer relief agencies and charities to establish predetermined emergency relief centres across the Island along with a network of professionals and volunteers who can provide assistance to vulnerable persons who are geographically isolated during or in the aftermath of an incident across the Island. Basic medical supplies and first aid treatment for minor injuries or ailments should also be available in these centres to reduce unnecessary strain on the Island's medical services or acute care facilities during or in the aftermath of a disaster.

15. *Conduct full risk analysis of Bermuda.* Bermuda has not had a full risk analysis to determine the prevalence of identified risks to the Island. Notwithstanding the informal analysis that was undertaken for the purpose of this review, the Committee recommends that the Government conduct a full threat analysis that would benchmark

[12]Bermuda Government Parliamentary Joint Select Committee on the Causes of Violent Crime and Gun Violence in Bermuda report to Parliament, July 2011.

Bermuda's current risks and to update it periodically (i.e. every ten years) in the event of an occurrence which may alter the standing of these existing or emerging risks.

Part Two: Implications for Bermuda's National Defence and Border Protection

National Defence

Bermuda Regiment

The Bermuda Government has announced its intention to abolish conscription. However, certain less publicly visible aspects of national defence, internal security and disaster relief currently provided by the Regiment might not be easily transferrable to, or absorbed by, other emergency services or Government Departments, either in part or as a whole. It was noted by the Committee that a number of other stakeholders interviewed as part of this review, most notably the BPS, the Bermuda Fire and Rescue Service and the Department of Corrections, all identified the Regiment as a key component to their respective contingency plans without which their own operational effectiveness and capabilities would be, in their estimation, substantially diminished.

Many international businesses operating in Bermuda have repeatedly expressed the view that the overall security of the Island, provided by the BPS and supplemented by the Regiment, is a critical success factor for Bermuda. Any action that has the potential to compromise that security, or indeed give the perception of compromising it, must be carefully considered. Therefore, it is of critical importance that the Regiment's transition from a volunteer force supplemented by conscription to an all-volunteer force be conducted over a time frame that preserves those national defence, internal security and disaster relief aspects provided by the Regiment currently or in the future, subject to this review.

Key Organizational Objectives or Main Effort

Pursuant to Section 32 of the Defence Act 1965, the Governor may direct that the Regiment or any part of the Regiment be embodied if it appears to him to be necessary to do so in the interests of public safety or the defence of Bermuda.

During times of austerity, it is vital for Government to be seen to spend taxpayers' funds wisely, as accusations of wastefulness are easy to cast and difficult to dispel. Regrettably, knowledge and awareness of the Regiment's current responsibilities, mission and role are not widely known by the community at large. There exists a public misperception that the Regiment's most visible/sole role is ceremonial and therefore not cost-effective.

The Regiment's main responsibilities are to support and provide assistance to the Regimental Assistance to the Civil Authority (RACA) (which includes security of Bermuda, its people, property, livelihood and interests) in order to maintain normality through the following:

1. Regimental Assistance to the Civil Ministries (RACM)
    - Crisis beyond their immediate control
    - Natural disasters (hurricanes)

- Man-made catastrophes (plane crashes and oil spills)
- Non-crisis maritime support to the BPS, Customs and Fisheries
- Medical support to BFRS EMTs
- Ceremonial guards and the Band and Corps of Drums for parades and official or state occasions

2. Regimental Assistance to the Civil Power (RACP)
   - Protection for the Key Points
   - Internal Security Operations in support of the BPS (crowd control)

3. Regimental Assistance to Bermudian Society (RABS)
   - Integration and development of Bermudians through provision of a common military experience
   - Opportunities to enhance life skills
   - Discipline
   - Mould better citizens and make Bermuda a better country through developing skills to support and respect civil authority and society

4. Regimental Assistance to the International Community (RAIC)
   - Instructions and training
   - Internal security support
   - Disaster relief efforts

The Bermuda Regiment has been embodied in support of the BPS on numerous public order occasions including the strike and Belco riots in 1965; various riots and states of emergency in 1970, 1972 and 1977; the assassination of the Police Commissioner in 1972, and the assassination of His Excellency the Governor and his ADC in 1973 and the general strike in 1981. The Regiment has further assisted the BPS and Government in providing key security capability during the Anglo-American Summits held on the Island during the 1990s; the visits of Her Majesty Queen Elizabeth II to Bermuda in 1953, 1975, 1983, 1994 and 2009; the Tall Ships Race in 2000 and the US terror attacks in 2001. The Regiment has been embodied for every major hurricane that has struck the Island in recent years, has assisted the BPS with joint maritime patrolling since 2010 and has assisted the BFRS during major fires on the Island. In terms of overseas deployment, members of the Regiment assisted with disaster relief to the Cayman Islands in 2004, Grenada in 2005 and the Turks and Caicos Islands in 2008. The Regiment also provided internal security during the Cricket World Cup held in the West Indies in 2007.

Current Structure, Manpower and Costs as at 1 April 2013

Established as a Light Infantry Battalion of six Companies (three Rifles, one Support,

one Quartermasters and one Band) and 650 personnel, the Regiment currently has a manned/operational strength of 409 personnel, of which only 28 are currently full-time staff providing mostly senior command, training and administrative roles. The full-time staff includes three secondments to other Government Departments (Aide-de-Camp to the Governor and two diplomatic drivers).

The current (2013/2014) budget for the Regiment totals $6.9 million, an amount which represents a cumulative reduction of 25% over the past five years.

Of the current funding, approximately $3.0 million is attributable solely to the training, salary, health, pension and other benefits of the 28 full-time staff.

The remainder of the Regiment's current funding is spent on training and operating costs, with very little apparent long term investment in either equipment or infrastructure possible.

Abolition of Conscription

The Committee analyzed various potential impacts and resulting contingent liabilities for Bermuda that the Government must consider following confirmation of its intention to abolish conscription in Bermuda, such intention communicated in the Speech from the Throne delivered by His Excellency the Governor in November 2013.[13]

Section 4 of the Defence Act 1965 states: "The Regiment shall be raised and maintained by means of voluntary enlistment, and also, in case voluntary enlistment proves inadequate for the raising or maintenance of the Regiment, by means of compulsory military service". In Bermuda, "compulsory military service" is more commonly referred to as "conscription".

The legislated intent since 1965 has therefore always been for the Regiment to be a volunteer force, resorting to conscription only when volunteer numbers were insufficient for the Regiment to accomplish its required responsibilities with respect to RACA.

While it is intended that the Committee's review and its resulting Report will assist Government with several of the extremely difficult decisions it must now consider, the Committee recognizes that the final decision on the direction that Government will take, the needs of Bermuda and the future of the Regiment rest solely with Government.

In this context, the Committee considered the following matters, among others:

- The Regiment's requirements in order for it to continue to perform the roles and the responsibilities it currently undertakes with respect to RACA, assuming that they are not amended or diminished, notwithstanding the proposed abolition of conscription;
- The impact to Bermuda in terms of its security and the safety of the public should volunteerism not be sufficient for the Regiment to continue to perform those roles and responsibilities it currently undertakes;

[13] His Excellency the Governor's Throne Speech, November 2013.

- The ways in which the Regiment's existing roles and responsibilities with respect to RACA might be amended to reflect the abolition of conscription and the need for increased volunteerism;
- A universal model of national service as an alternative to volunteerism and conscription; and
- Retention of the current Regiment model, or a variant thereof, mindful of the Committee's other recommendations and within which conscription remains a component as currently legislated.

Option 1: Transition to All-Volunteer with No Other Changes
The Defence Act 1965 currently provides for conscription should there not be enough volunteers to support the Regiment's current responsibilities. Should the Regiment's current responsibilities not be amended or diminished, then upon the abolition of conscription the Regiment will be required to meet its mandate to RACA solely through volunteerism.

The Committee notes, as have various other interviewed stakeholders, that the Regiment's ability to provide a surge of disciplined and well-marshalled human resources is the key component to several other emergency services' and Government Departments' respective contingency plans. This capability is required to provide physical security in terms of internal security and disaster relief.

The importance of the Regiment to the BPS during public order events in the absence of any other similarly uniformed service was made abundantly clear by the Commissioner of Police during his presentation to the Committee. The Committee noted that a viable risk facing Bermuda and the BPS, although one that the Committee and BPS hoped never to materialize, was the level of spontaneous and senseless violence, damage and destruction that erupted in London and other key cities in the United Kingdom in 2011. The United Kingdom was able to cope during that time of crisis by mobilizing police forces in surrounding counties by virtue of established mutual aid agreements such as Thames Valley Police and Avon & Somerset Constabulary to augment the various city forces, with the Territorial Army as an ultimate reserve. Should Bermuda experience a similar drastic and immediate escalation of violence, the BPS's ability to deploy Public Support Units (PSUs) is finite in duration and manpower. The Regiment would be required within short order to augment and support BPS operations, as it has done on numerous times throughout the Regiment's 50-year history.

Similarly, the Regiment has augmented the BFRS during major fires at Pembroke Marsh and has on occasion provided the first line of reserves to the Department of Corrections.

1. *Manpower Requirements.* In order to provide RACA effectively to the degree currently mandated, the need to maintain the Regiment's manpower at a set minimum has been previously well-established by several other Committees and

reviews, both internal and external, submitted to Government during the past 35 years.

A minimum of 400 personnel is now considered the lowest acceptable level of manpower. This number would provide four Operational Support Units (OSUs), the Regiment's equivalent to the BPS's Public Support Units or "riot units". Included in the 400 personnel would be a *de minimis* number required for static guard at a limited number of Key Point (KP) units and a single 30 person Quick Reaction Force for Island-wide deployment and support. Any total of less than 400 personnel would compromise the Regiment's effectiveness and ability to support both operations as currently required. Any reduction would have to give consideration to the ongoing ability of the BPS to sustain front line operations in a public order environment in light of the lack of any other available resources.

Reduced numbers would negatively impact the Regiment's ability to provide a range of RACA tasks effectively.

Notwithstanding the fact that the Defence Act 1965 intends and provides for volunteerism to be the driving component with respect to recruitment, the need to rely heavily on conscription evidences a lack of sufficient volunteerism to date. Therefore, an unmanaged transition from the current system to an all-volunteer force increases the risk inherent to relying solely on recruitment.

This risk could be mitigated with a phased abolition of conscription over a period of time, with four years considered the absolute minimum necessary to effect the change without a drastic reduction in capability. However, this assumes a 1,000% increase in the current level of volunteers in each of those four years from current levels, or an increase from the current ten volunteers per year to a proposed minimum of 100 volunteers for each of those four years. If an arbitrary target date were set with no mechanism in place to improve voluntary recruitment, then the Regiment's ability to comply effectively with its current obligations under RACA would be severely compromised.

An all-volunteer Regiment model assumes that Bermuda's demographics would support the substantial increases required to sustain current manpower and operational effectiveness. Some 17% of school leaving males currently serve in the Regiment, a very high proportion when compared to either the UK or US where military recruitment represents only a tiny fraction of their overall population (<1%). Anecdotally, this is evidenced by the Regiment having issued over 11,000 Service Numbers since 1965 for a static local population of approximately 60,000 Bermudians. It is anticipated that there might only be a limited increase in individuals interested in joining the Regiment once it becomes an all-volunteer force.

Current demographics of an ageing population and other challenges, including a diminishing pool of eligible males, compound the problem of recruiting volunteers.

Although at first appearance it may be attractive to rely on making good a deficit of volunteers by targeting a greater proportion of female soldiers, there remain certain operational situations where females may not be deployable because of either actual physical constraints or public perception and reluctance (i.e., during riots or other public order incidents). Anecdotal evidence regarding the BPS suggests that there is a higher incidence of sick leave by female officers which materially compromises effectiveness. While it might not be politically correct to suggest gender inequality, it becomes a viable security risk if in practice sufficient bodies are not available on embodiment.

2. *Financial Implications.* The Committee believes that the transition to an all-volunteer Regiment would require certain operational and administrative considerations with respect to recruitment and retention that have material financial implications.

   An active recruitment campaign will require additional and previously unbudgeted expenditure without guarantee of success. Meaningful incentives to volunteer and join and then remain enlisted would need to be considered; however, these incentives would also represent additional and previously unbudgeted expenditure.

   It would not be unreasonable to expect that the minimum qualifications/standards for volunteers, including but not limited to fitness, literacy and numeracy, would be higher than currently expected of conscripts.While the Regiment could compensate and accommodate with targeted programmes to address those social and educational shortcomings, any compensatory programmes would need to be in addition to (rather than in place of) the minimum training requirements for operational effectiveness and would require additional and specialized training that is not currently within the Regiment's capability or mandate. Provision of the necessary additional and specialized training would require additional and previously unbudgeted expenditure.

   The Regiment's current part-time contingent includes a "long stay nucleus" of 134 personnel. Most of these members initially joined the Regiment as conscripts and enjoyed their service and therefore extended their participation on a voluntary basis. As a result, many of those in the "long stay nucleus" are officers, non-commissioned, commissioned or warrant, and/or specialists (medic, boat, etc.) and no longer basic infantry. Creation of an all-volunteer force would therefore most likely result in an excess of more mature soldiers with a gap in age profile for some younger year groups. This outcome can be undesirable if there is inadequate provision for the development of future personnel. However, it might be counterproductive to dismiss members of the "long stay nucleus" based purely on age or rank if their ability to perform necessary tasks adequately is not compromised. It is to be noted that a top-heavy rank structure also brings with it higher wage considerations.

The Committee therefore believes, based on the above and on the assumption that there are no changes to the Regiment's roles and responsibilities to RACA, that an all-volunteer model would be considerably more expensive than the current model.

3. *Budget Constraints.* The Committee understands that the Regiment's budget has been materially reduced by 25% over the past five years. This reduction in budgetary allocation has required that the Regiment reduce operational manpower and limit training to basic infantry tasks and essential specialist functions. The Committee further understands that both operational manpower and training are now viewed to have reached their fundamental minimums and that the further reduction of either would disproportionately and negatively affect the Regiment's effectiveness and ability to carry out any meaningful RACA without a fundamental change in role. The Committee believes that Bermuda has been most fortunate that the Regiment has benefited from a comparatively lessened threat assessment than in previous decades to allow for the degree of contraction it has had to accept.

   Much of the Regiment's current funding is spent on operating costs, so very little long term investment in either equipment or infrastructure is possible. Much of the Regiment's equipment required for fulfilling its current mandate is at the end of its useful life, most notably its weapons, vehicles and boats. The Committee understands that new equipment might be procured from the UK at favourable rates and the possibility of gifting to a British Overseas Territory must also be fully explored.

   Should the Regiment's budget remain static, notwithstanding the increased expenses the Committee perceives an all-volunteer unit will inevitably incur, the Regiment will have no option but to diminish rather than maintain its current responsibilities due to budgetary limitations. The Committee notes that, despite public misperception, ceremonial duties are ancillary to, rather than the Regiment's main effort. To keep the Regiment solely for ceremonial purposes at the exclusion/detriment of RACM/RACP training would constitute an inefficient and inappropriate use of taxpayers' funds. Therefore, given current and anticipated budget constraints, the Committee would propose the reduction or elimination of the following programmes within the Regiment:

   - requirement to provide RABS/RAIC
   - Junior Leaders programme
   - Band and Corps of Drums
   - Gun Troop
   - minimal to no military involvement at ceremonial events

Option 2: Alternatives to the Bermuda Regiment

As the Committee has previously noted, the Regiment's ability to provide a surge of

disciplined and well-marshalled human resources is the key component to several other emergency services' and Government Departments' respective contingency plans. Currently, there are no contingency plans as to how to provide the required service and the surge capability if the Regiment did not exist or, if due to operational ineffectiveness, it was unable fulfil its current roles.

As previously stated, the Committee has reaffirmed previous Government reports with respect to the minimum manpower required by the Regiment in order for it to fulfil its roles and responsibilities with respect to RACA. The Committee has also noted that the abolition of conscription will require Government and the Regiment to increase volunteerism in order to continue to perform those roles and responsibilities if unchanged and the material financial impact of doing so.

There is a small, yet highly vocal, element within the community that repeatedly advocates for the disbandment of the Regiment, based either on personal reluctance to fulfil their statutory obligation to serve or a misperception/lack of knowledge or understanding of the actual roles and responsibilities provided by the Regiment under RACA, beyond the solely visible ceremonial component. The Committee considered the ramifications and possible options available to Bermuda once Government proceeds with the abolition of conscription.

The Committee notes that those ramifications and options remain identical should, notwithstanding the best efforts and commitment of Government and the Regiment to increase volunteerism, there remain insufficient volunteers to provide for and ensure the continued effectiveness of the Regiment in performing its obligations to Bermuda.

The Committee has considered the possibility or availability of RACA assistance from external and international parties in the absence of an effective Regiment:

1. *Redistribute the Roles of the Regiment.* The Regiment's ability to provide a surge of disciplined and well-marshalled human resources for internal security and disaster relief are key components to many other security services' and Government Departments' contingency plans. Even the ceremonial responsibilities of the Regiment Band and Corps of Drums could theoretically be assumed by another organization, new or existing and potentially external to Government, but the resources and costs associated would conceivably be higher elsewhere. Much of the spectacle of the Band's performances derives from being a military marching band with accompanying history and traditions.

   Throughout the remainder of this Report, the Committee makes several recommendations with respect to resources that would be required to meet certain security and safety needs and the most effective and efficient way to deliver the services for those needs, giving particular consideration to which existing or proposed Bermuda-based organizations should deliver these services in the absence of the Regiment.

While tasks currently performed by or expected of the Regiment could be distributed amongst other agencies, the Committee feels that this may not always be the most viable option, as the uniformed services and other Government Departments already have roles to play during national disasters or the maintenance of public order. Crucially, the redistribution of tasks would either require a commensurate transfer of manpower to complete these functions or the surge capacity which is required to deal with emergencies will be lost. This redistribution of tasks would also provide a less cost efficient option as the wages of a full-time Police Constable or Department of Parks employee are higher than those of a part-time Private in the Regiment, without taking into consideration overtime and danger pay.

2. *Rely on Military Assistance from the UK*. The Committee's discussions with the UK's FCO confirmed the UK's position that it would not utilize or deploy military assets to assist in the internal affairs, such as public order situations, of sovereign states or self-governing territories. The UK's position in this regard was evidenced during the recent emergency in the Cayman Islands where requested military assistance was declined. Domestically, the UK has shifted to police primacy which means that, at best, Bermuda could only hope to receive police reinforcements.

   Whatever the form of assistance, it must be understood that it would take a minimum of two to three days to identify and mobilize that assistance before it would even be able to arrive in Bermuda, assuming that the airport is not damaged or is otherwise not operational. This is in contrast to the four hours required to embody and mobilize elements of the Regiment currently. This minimum deployment window of 72 hours plus is longer than the BPS's current best estimates for sustained public order operations, without the local surge capacity afforded by the Regiment. Assistance from overseas should not be expected to be provided as a free service, although the Committee was unable to determine a meaningful breakdown of the potential costs, for in the absence of a form or MOU, there are too many variables to consider. Because of the isolated geographical position of the Island and its small size, localized events in Bermuda have the potential and unwelcome propensity to escalate into national emergencies. Such escalation would be unlikely in a small town or city of similar size and population in the UK or US.

   A well-trained and disciplined domestic force able to provide the required surge capacity in both emergency and non-emergency instances is therefore considered a necessity where and when Bermuda is unable to rely on the UK for support in times of need.

3. *Rely on Assistance from the US*. The Committee's discussions with the US Consul General in Bermuda confirmed the US's position that the extent to which it would utilize or deploy military assets to assist during internal crises in Bermuda, such

as public order situations, would solely be to safeguard and if necessary extract US citizens. The US Consul General has similarly confirmed the US's reluctance to domicile US Coast Guard assets in and from Bermuda. Any MOU to provide any assistance beyond this mandate would require tripartite negotiations that include the UK FCO. The considerations set out in paragraphs two and three under 'Rely on Military Assistance from the UK' above apply here as well.

4. *Rely on Assistance from the Caribbean.* Anecdotal evidence and experience would suggest that, notwithstanding CARICOM and other regional treaties or commitments for mutual assistance, most military units within the Caribbean lack the transport capability to provide any meaningful assistance overseas or the ability to be self-sustaining if deployed overseas. Notwithstanding logistical constraints, any MOU to provide assistance would require tripartite negotiations that include the UK FCO. The considerations set out in paragraphs two and three under 'Rely on Military Assistance from the UK' above apply here as well.

5. *Rely on Assistance from Elsewhere.* The Committee believes that it would be unrealistic in the extreme for Bermuda to expect to receive from an unrelated third party immediate and emergency assistance to address internal crises in Bermuda, such as public order situations, without either a compelling interest or lucrative contract or MOU pre-negotiated and in place. The considerations set out in paragraph two and three under 'Rely on Military Assistance from the UK' above apply here also.

6. *Privatization.* Reputable private companies could be contracted to provide defined services. However, the Committee was unable to determine a meaningful breakdown of the potential costs, as there are too many variables to consider. With respect to disaster relief, Bermuda could in effect be paying a higher "premium" than it currently does for the Regiment by engaging professional third parties to remain on stand-by. Most local security firms are staffed by ex-Regiment personnel; the Regiment would cease to be an indirect training facility, an outcome that could result in the gradual deterioration of certain skill sets.

   Despite Government's desire to source contracts locally, certain capabilities may not be best delivered by a solely local solution. Additionally, the privatization of armed response and public order surge capacities cannot occur in the absence of significant amendment to current legislation.

   The Committee accepts that internal security and additional disaster relief could theoretically be provided by any number of different means — additional Police Officers, a private security company, the British Army or a volunteer force, for example. However, these alternatives have disadvantages in cost, response time, lack of guarantee of a disciplined force and questionable legitimacy, all of which suggest that capability is best retained by the Regiment.

Option 3: Modify Structure and Role of the Regiment

Having given careful thought to Bermuda's current economic conditions and the recent increase in unemployment amongst Bermudians, the Committee considered the possibility of restructuring the Regiment by increasing the opportunity for full-time employment.

However the Committee believes that creating a more professional force through the reduction of part-time personnel would not result in a reduction in overall costs, as it is anticipated that there will need to be an increase in the number of full-time personnel to ensure that the Regiment is able carry out its existing and proposed responsibilities. One possible configuration, incorporating the existing administration roles as well as the expanded maritime capabilities as discussed elsewhere in the Report, would comprise 100 full-time staff and 300 part-time staff. The related costs under this scenario would equate to approximately $18.7 million, not including training and equipment costs - approximately $10.0 million for the 100 full-time personnel ($3.0 million for existing 28 staff, $3.4 million proposed for 30 full-time maritime staff and approximately $3.6 million for remaining 42 staff) and about $8.7 million for the part-time component (assuming an average part-time annual salary of $29,000 based on $2,000 base salary per month and annual bonus of $5,000). Some savings in this regard may be achieved by introducing a tiered level of part-time volunteerism between 'regular' and 'reserve' staff, whereby the latter would be paid less in exchange for reduced time commitments.

As the Committee has acknowledged elsewhere in this Report, a reduction in manpower would provide further savings with respect to the Regiment, but would necessitate the reduction or refocusing of the Regiment's current responsibilities. It should be noted that the redistribution amongst existing or new resources within Government and the community of those services currently provided by the Regiment, but unable to be addressed by a smaller Regiment, would most likely not be possible within existing budgets.

In light of an increased need for volunteers, the Committee believes that modification of the structure and role of the Regiment is essential in order to provide the stimulus necessary to attract and retain the dramatic increase in volunteers that will be required following the abolition of conscription.

The Committee recommends refocusing the Regiment more heavily towards those responsibilities relating to RACM and RACP in order to make the Regiment's contributions more readily visible, thereby allaying the common misperception that the Regiment's only current contribution relates to RABS ceremonial duties.

The Committee notes that the current Commissioner of Police has expressed a desire to refocus the BPS on law enforcement and to divest/delegate ancillary services, including maritime operations, explosive ordnance disposal, crowd cordons and control and search and rescue diving, inter alia, to appropriate third parties. Modification of the structure and role of the Regiment in order to assume some or all of those and other responsibilities could provide the stimulus necessary to increase volunteerism.

1. *Maritime Operations*. The Committee notes that there have been many suggestions or commentaries with respect to the establishment of a full-time maritime capability to address law enforcement, border protection, drug interdiction and search and rescue. As noted previously, the Commissioner of Police has expressed his desire to refocus on law enforcement and to divest/delegate ancillary services to appropriate third parties.

   The Regiment could be re-established as a smaller maritime unit, or Coast Guard, in line with the proposal presented to Cabinet in February 2013, with the opportunity to expand the role to include also a deep-sea capability once the Island has determined its position and direction with respect to the EEZ and Sargasso Sea protection. Building upon operational synergies and previous experience, the Regiment has expressed the desire to expand the role of its current Boat Troop to include an enforcement role on the water, initially with an inshore capability and to expand eventually to include the entire EEZ.

   A February 2013 Cabinet Memorandum proposed transferring inshore (within the inner reefs and, weather dependent, to the outer shelf if necessary) maritime patrolling responsibilities to the Regiment Boat Troop. The Memorandum proposes that the Boat Troop would have 24 full-time staff and ten part-time staff, plus necessary training, kit and equipment for an additional $3.4 million per year (as compared to the current BPS notional establishment of 14 personnel and an annual budget of $1.3 million).

   The estimated costs, having been already identified herein or elsewhere, would not present any meaningful savings to the Government, as any benefit from the reduction in overall manpower would be offset by increased employment costs for expected and mandated benefits for full-time employees, as well as significantly increased equipment and maintenance costs. The Regiment's Boat Troop has an established strength of eight craft, of which four craft were donated by the BPS once they were deemed no longer operationally serviceable or insurable by Lloyds' standards. Consequently, a replacement programme would have to be considered in order to ensure the long-term effectiveness of any maritime patrolling.

   While maritime security, enforcement and border protection would benefit, including providing other agencies such as the BPS, Customs, Immigration and Fisheries with a means of boarding vessels and projecting authority, a significantly smaller Regiment with a narrower operational focus would eliminate the ability to provide surge capability for internal security or disaster relief efforts. In the Committee's view, the expansion of the Boat Troop, should it be considered, should be as a distinct or additional capability completely separate from any other current or future role of responsibility of the Regiment. Anecdotal evidence from current BPS experiences would indicate that having maritime capabilities and responsibilities and an ancillary/secondary specialty actually limits operational

effectiveness due to constraints of resource allocations. The Regiment would be unable to provide any OSUs or an effective KP static guard.

While the capabilities of a smaller unit may be enhanced by the use of unmanned aircraft or drones, the technology has not yet reached the point where these assets can provide a cost-effective patrolling or information gathering system, as they must be targeted with some degree of accuracy in order to be effective.

The Committee acknowledges that it is possible for the Regiment to develop offshore maritime capabilities as well. However, the Island has not yet developed a firm maritime proposal that encompasses deep sea/EEZ/Sargasso Sea capabilities. While the Regiment could take over the operation of the larger BPS vessel *Guardian*, further study into the cost-effective use of this capability on sustained maritime operations will be required. Anecdotal evidence from BIOS regarding the M/V *Reef Explorer* suggests a minimum $500,000 a year operating budget for fuel/lubricants for a single vessel, excluding maintenance, service, spares and salaries. This amount also does not include initial replacement costs of vessel or insurance costs.

The Committee believes that further consideration should be given to additional personnel and associated costs that extended offshore patrolling would require, minimum 24-hour shifts and the possible requirement of more than one vessel. If patrols are to cover areas beyond the 12-mile radius out to the 200-mile exclusion zone, multi-day excursions will be required, a circumstance which will require more than one watch to cover 24-hour shifts which would limit the ability of the personnel involved to re-task for onshore duties easily or concurrently.

2. *As a Light Engineering Unit.* Historically, the Regiment has been configured and run along the lines of a Light Infantry Battalion with the addition of a small maritime support capability. However, current threat assessments would imply that no credible external threat to Bermuda's security or sovereignty exists that would require a continued focus on solely conventional infantry skills preparing for situations that are unlikely to occur in Bermuda. Therefore, consideration should be given to shifting the focus from infantry fighting tactics to engineering skills within a military framework, thereby preparing more adequately for those scenarios which are far more predictable and affect the entire population.

   Re-roling the Regiment as a Light Engineering Battalion with recognized civilian-equivalent development and training programmes for technical skills could also be seen as a catalyst for increasing volunteerism and participation. A re-roled Regiment could be responsible for disaster assessment and coordination while still providing surge capability for internal security matters, including OSUs and KPs.

   The Regiment would also be able to assume certain ancillary operational responsibilities that may be delegated from the BPS or other Government

Departments or agencies including, but not limited to, maritime operations and rescue diving and special operations (surveillance, incident containment, sniper and explosive ordnance disposal and demolitions). The Regiment would also be able to retain its ability to provide RABS through the continuation of its more ceremonial duties through the retention of the Regiment Band and Drums Corps and Gun Troop, as well as the Junior Leaders programme.

It should be noted that this option would provide little benefit to the Government in terms of cost reduction. Initial and ongoing costs would actually increase as a result of the need to address the increased training in specialist skills, as well as those costs previously addressed elsewhere with respect to infrastructure, equipment and recruitment.

3. *Overseas Deployment and Humanitarianism.* The Regiment has repeatedly made a good name for itself and for Bermuda through the low-skill support it has been able to provide through disaster relief to some Caribbean nations.

   The Committee understands that several parties, including but not limited to the Government, have suggested that increased RAIC operations would benefit Bermuda as a means of fostering improved sovereign relations and potentially increasing volunteerism.

   However, the United Nations standard Memorandum of Understanding for the deployment of military forces overseas to participate in civilian-military coordinated disaster relief operations mandates that the relevant military force must be 100% self-sufficient in all aspects. The Committee finds that the Regiment, either in its current or potential future role, lacks the logistical capability or financial resources to be either effective or sustainable in these circumstances. The Committee believes that consideration of such an expanded role for the Regiment should be deferred until it becomes more financially feasible for Bermuda to participate in this manner.

4. *As a Non-Military Unit.* The Regiment could be re-roled as a non-military unit with a focus on a national risk and disaster assessment and coordination role, similar to the model that was introduced in Panama and Costa Rica upon the voluntary disbandment of their respective military forces. This option would be similar to re-roling as a Light Engineering Unit in terms of a predominantly engineering focus, but with recognized civilian qualifications rather than civilian equivalent and with no armed response capability.

While a non-military unit might address a perceived vocal minority's concerns regarding the need for the Island to retain a military force, it would limit or eliminate the Regiment's ability to provide surge capacity to the BPS for certain internal security or public order matters. While a non-military unit would effectively provide the Island with a form of "job

corps" during these challenging economic times, the elimination of the internal security component would, in fact, result in the unnecessary duplication of efforts and resources which might be better addressed by redistributing the Regiment's non-security roles to other Government Departments and emergency services, but with the caveats already identified by the Committee elsewhere in this Report.

Option 4: National Service

The Committee acknowledges that some Bermudians do not see the relevance of the Regiment to their day-to-day lives, nor do they see the Regiment adding value to the Island overall. The Committee therefore considered the suggestion of the formation of a National Service framework that would carry out focused tasks in the community. This framework has been considered by previous Governments as a possible alternative to the Regiment, as well as an opportunity to encourage young Bermudians — or those who wish to become Bermudian — to play a positive and active role in the future of the country.

The Committee considered a public-spirited compulsory National Service programme as an alternative to volunteerism and conscription, but felt that the disadvantages, whether they be actual or perceived, were not inconsequential:

- *Cost*. Those participating must be paid a minimum wage for their contribution. Any training is likely to incur some additional costs, especially in the initial stages.
- *Command and Administration*. Those undergoing National Service will require oversight and some degree of administration for pay and progression of training.
- *Compulsory Participation*. National Service will require all Bermudians within a certain age range to participate. Not everyone will wish to take part.
- *Conscription Comparison*. Some members of the community will say that National Service is conscription by another name.
- *Slavery Analogy*. Some members of the community may attempt to portray compulsory attendance as a throwback to slavery.

The Committee therefore recommends that National Service not be considered as a viable option.

Option 5: Maintain Current Model

The Committee acknowledges that Government's intention to abolish conscription was expressly beyond the scope of this review. Nevertheless, in order to present a complete analysis, the Committee was obliged within the context of the review to give some consideration to the impact that the abolition of conscription will have on Bermuda.

To that end, it must be noted that many of the challenges associated with the abolition of conscription raised by various stakeholders would be alleviated or eliminated by either the extended deferral of the abolition (i.e., longer than four years) or a complete

reversal of the current position on conscription and its elimination. Maintaining the current Regiment model or a variant thereof, being mindful of the Committee's other recommendations, within which conscription remains a component as currently legislated, should nevertheless be considered as the most cost-effective and efficient way to deliver the security and safety services available to the Government and Bermuda as a whole.

Again, the Committee acknowledges that the matter of retaining conscription is outside its remit.

Committee Recommendations

Implement a phased approach to the abolition of conscription. The Bermuda Government has announced its intention to abolish conscription. However, after consultation with former and current Regiment personnel, emergency responders and other agencies, the Committee has discovered that certain less publicly visible aspects of national defence, internal security and disaster relief currently provided by the Regiment might not be easily transferrable to or absorbed by other emergency services or Government Departments, either in part or as a whole. It is therefore critical that the transition from a volunteer force supplemented by conscription to an all-volunteer force be conducted over a time frame that preserves those national defence, internal security and disaster relief aspects provided by the Regiment currently or in the future, subject to this review.

Change the mission and strategic role of the Regiment. Given the announced plan to end conscription, the Regiment must modernize its mission and role to make it more relevant to the real world situation in Bermuda. Re-direction of the Regiment's focus on disaster recovery with a Light Engineering focus while providing the essential military support to the BPS is a feasible way forward. Acknowledging the Government's current limited ability to provide significant financial incentives, the Regiment must refocus its emphasis on disaster recovery and transferable real-life skills in order to increase volunteerism by the dramatic amount needed for the Regiment to remain an effective and efficient means of supporting RACA and, in particular, the BPS, Bermuda Fire and Rescue Services and the Department of Corrections. By developing the right military capabilities, residents of Bermuda will enjoy an extremely high and cost-effective Regiment. In this vein, the Committee believes the following components to be fundamental for the new Regiment that will impact Bermuda in the most significant and positive way:

1. *Re-role from light infantry to light engineers.* Change from a Light Infantry Battalion to a Light Engineering Battalion with focused specialist rather than generalist skills. Not only would this make the Regiment far more useful to Bermuda in times of an emergency, but it would also be an improvement on a day-to-day basis. However, this must also be done in context with the requirement that the Regiment is able to provide immediate surge capability to the BPS in public order scenarios or while patrolling and ensuring public safety during and at large events.

2. *Expand the Regiment's maritime capability*. Expand the role of the Regiment's current Boat Troop to include an enforcement role on the water, initially with an inshore capability to be developed eventually to include the entire EEZ, in line with the referenced Cabinet Memorandum of February 2013. The expansion should be as a distinct or additional capability, completely separate from any other current or future role or responsibility of the Regiment and should not be done in a manner that would compromise the Regiment's ability to provide the BPS with immediate surge capacity when required.
3. *Develop an effective recruiting strategy*. To preserve the future of the Regiment in any form, a robust recruiting strategy must be implemented. Experience from other jurisdictions indicates that this strategy must be based on personal interaction within the community in order to influence potential recruits. If the emphasis of recruiting is based principally on expensive advertising[14] [15] and financial incentives[16] to join, numbers are unlikely to increase while valuable time and money are wasted.

Border Protection

HM Customs

The mission of the Customs Department (HM Customs) is to promote compliance with Bermuda's customs laws through quality service and responsible enforcement, thereby contributing to the Island's economic and social stability. Its mandate is to facilitate legitimate trade, assess and collect revenue and interdict drugs and other contraband.

HM Customs, with an establishment of 214, an actual complement of 200 and a budget of $20,000,000 for fiscal 2013/14, is led by the Collector of Customs who is supported by a senior team of Customs Officers.

HM Customs is established under the Customs Department Act 1952, but the primary legislation governing its operation is the Revenue Act 1898. The main focus of HM Customs is, therefore, revenue collection, although it is recognized that the protection of Bermuda's borders is also a key legislated responsibility of HM Customs.

Currently, HM Customs is a part of the Ministry of Finance. However, it has been agreed that effective 1 April 2014, the Department will move to the Ministry of National Security and that the Collector will report to both the Minister of Finance and the Minister of National Security.

While access to Bermuda by persons and items can be gained in a multitude of ways, the main routes are:

[14] BBC Website 11 Aug. 2013. "Reservists Slow to Enlist Leaked Memo Suggests" [online]: http://www.bbc.co.uk/news/uk-23654334

[15] *The Times* newspaper 7 Sept. 2013. "Soldiers Step in to Rescue Army Recruiting" [online] http://www.thetimes.co.uk/tto/news/uk/defence/article3862998.ece

[16] Smith, S. 2013. "Armed Forces' Pay Review Body — 42nd Report" [online]: http://www.official-documents.gov.uk/document/cm85/8571/8571.pdf

- Airport — passengers, crew, luggage and freight
- Cruise Ships — passengers, crew and luggage
- Private Yachts — personnel and belongings, also possible small to medium cargo
- Docks — commercial shipping — crew and freight
- Post Office — letters, packets and parcels

As a result of a recent shift in duties previously carried out by the Department of Immigration, Customs Officers now process passenger arrivals into the Island, in addition to their other duties as set out under the legislation.

Issues Identified

1. Because of its significant focus on revenue generation, HM Customs is not perceived as a law enforcement agency by other agencies and is not given access to critical information by other uniformed services and agencies. This is a matter that must be addressed as most of the seizures made by Customs result from intelligence gathering.

2. While joint operations have been effectively used to convict many drug importers over the years, there currently is no joint operation between the BPS and Customs with respect to drug interdiction and criminal activity at Bermuda's borders. A previously existing Memorandum of Understanding between Customs and the BPS was negated by the Police and Criminal Evidence Act 2006 (PACE). Whilst the BPS operates in accordance to the PACE regulations, HM Customs does not. This disparity has created operational challenges in the handling of law enforcement issues within Customs areas and in joint operations between the BPS and HM Customs. The natural evolution should be for the BPS to relinquish this area of criminal investigations to HM Customs, as is the case in many overseas jurisdictions. An alternative approach could be for the border control aspect of drug interdiction to become a principal responsibility of the BPS, but this approach is not recommended as, inter alia, it would lead to a significant increase in size of the BPS and would not effectively address many of the other issues related to border protection. Clarification of roles and responsibilities in this regard, particularly at the various borders, is of primary importance.

3. Whilst HM Customs has primacy at Bermuda's borders and ports of entry, the BPS has responsibility for the enforcement of provisions of the Misuse of Drugs Act 1972 at the borders and the conduct of criminal investigations for all drug importation offences. Customs Officers do not operate under 2006 PACE rules and therefore do not have a criminal investigation regime.

4. Significant HM Customs effort is focused on carrying out its delegated Immigration function. This delegated responsibility militates against the ability of HM Customs to carry out all aspects of its legislated role effectively.

5. The private jet facility at the LF Wade International Airport is not subject to 100% law enforcement coverage.

6. K9 units controlled by HM Customs may indicate the presence of contraband on cruise ships. However, Custom Officers are no longer posted around the clock on ship gang planks and the Department has now adopted a "risk based approach", relying on intelligence received from cruise ship crews with respect to perceived suspicious behaviour of passengers and personnel aboard vessels that are arriving in Bermuda.

7. HM Customs does not have its own marine section with which to transport Customs Officers to vessels. The lack of a BPS marine presence linked with the lack of resources on the water for HM Customs, combined with approximately 1,100–1,200 yacht movements per year, make it difficult for HM Customs to police private yachts effectively. The Collector has acknowledged that the water was the least effectively monitored area within the remit of HM Customs, with a very small percentage of marine craft undergoing searches.

8. The recently installed x-ray equipment at the Hamilton Docks is efficient and results in seizures of contraband. However, the lack of consistent x-ray screening for drugs at the Bermuda Post Office airport facility means that illegal substances could potentially be transited into the Island by this route.

9. The Joint Intelligence Unit (JIU) was formerly comprised of staff from four elements: HM Customs, US Customs, the BPS and the Department of Immigration. Because of budget cuts, it now consists of HM Customs and the BPS only. The current arrangement is seen as less than satisfactory as the information sharing that was facilitated by having all of these components in one room made the JIU more effective in the discharge of its responsibilities.

10. The significant changes in the US approach to border control resulting from the establishment of the Department of Homeland Security have resulted in restrictions in the amount and kind of information that US border authorities can share with the JIU which is not a formal border protection agency.

11. There currently is no centralized database through which HM Customs, the BPS and the Department of Immigration can share information/intelligence. There is a compelling need to establish such database, as it would enhance the ability of HM Customs to discharge its responsibilities at Bermuda's borders more efficiently and effectively.

12. A proposed joint database with the Caribbean Customs Law Enforcement Council (CCLEC) would provide HM Customs with the ability to engage in effective and necessary collaboration with agencies in the Caribbean area and elsewhere.

13. Communications between HM Customs and the Department of Marine and Ports agencies are satisfactory. Harbour Radio generally contacts HM Customs to warn of approaching yachts, allowing HM Customs (subject to available resources) to mobilize and meet these yachts. In this way, HM Customs discharges both its primary responsibilities and its delegated Immigration responsibilities.

14. HM Customs has only three K9 units at its disposal. A minimum of five such units would enable the Department to cover the areas of greatest risk more effectively. In particular, placing a sniffer dog at the General Post Office is strongly recommended. It is to be noted that in the past, joint BPS and Customs K9 and rummage teams would be used at the Post Office. Their absence is seen as an impediment to effective enforcement.

The issues noted above reinforce the view that insufficient attention is given to border protection. In order to address the challenges and ensure that customs and border control issues are effectively addressed, three options are presented. Legislative amendments and Regulations will be required to give effect to some of the initiatives required under these options. The options follow:

- *Option 1* Maintain the current regime
- *Option 2* Create a Border Protection Unit comprised of personnel from relevant agencies, including HM Customs, the BPS and Immigration
- *Option 3* Establish a separate and distinct Customs and Border Protection Agency within the Ministry of National Security with legislated responsibilities for enforcing measures related to the movement of people and goods across borders

Option 1: Maintain the current structure

Enhancements to the current HM Customs structure could lead to improvements in the effectiveness of the Department's operation overall, particularly with respect to border protection. However, it is unlikely that the current structure would allow an efficient and effective framework that appropriately complies with international standards. Enhancements that could be made include:

- Increasing the number of K9 units;
- Addressing issues relating to domestic cooperation through a working Memorandum of Understanding with the BPS, a centralized database or at the very least increasing the access that HM Customs has to other law enforcement agencies;
- Creating a culture within HM Customs that places greater focus on enforcement by, inter alia, strengthening the knowledge and expertise of Customs Officers in enforcement matters, using civilians for as many of the revenue and administrative roles as possible, changing the name of the Act that governs the responsibilities and requirements relating to Customs matters from the Revenue Act to a title that downplays the revenue role (although the importance of the revenue collection function is recognized) and removing the term "Collector" from the title of the head of the Customs Department;
- Expanding the use of joint operational teams in drug interdiction and other such initiatives;

- Explore and implement ways to enhance regional and international cooperation through participation in shared databases;
- Require Customs Officers to operate according to PACE standards, similar to Police Officers; and
- Develop protocols to mitigate security gaps in inbound mail processing and delivery, specifically at the GPO airport facility, as well as arrivals by private jets and yachts.

This option will require an increase in financial and human resources, the level of which will be significantly impacted by the extent of the enhancements made to the current structure. However, the level to which the enhancements can be implemented may be limited by the current structure, a circumstance that constitutes a key drawback to this option. Consequently, the effectiveness of an enhanced unit may not be commensurate with the investment made in people and funding. Impediments with information sharing from external agencies will continue to exist in an enhanced current structure even if, for example, the approach is taken to continue a JIU at the airport. In addition, the use of joint operational teams will continue to be integral to the regime, based on the current structure, and their contributions/availability will be impacted by the priorities within the various agencies involved.

Option 2: Create a Border Protection Unit comprised of personnel from key agencies, notably Customs, the BPS and Immigration

This option assumes that a Border Protection Unit will be a specialized entity with delegated functions to carry out the key border control duties and that it will be comprised of seconded staff with the relevant expertise from the various agencies. Mindful of the fact that this proposal recommends a separate or dedicated agency whose staff will be seconded from other agencies, the Committee considers it unlikely that the proposed unit will result in an efficient and effective operation. The Committee believes that there will remain key gaps that cannot be addressed. The provision of effective leadership would be a key challenge were this option selected, given that its staff will be seconded from other agencies and may at times be subject to the priorities of the agencies that employ them. The provision of effective information exchange is a second key challenge accompanying this option, as the proposed unit will not be a legislated agency but, in essence, an "ad-hoc" unit. Further, given that some of the proposed unit's duties might fall within the purview of different agencies, effective prioritization of responsibilities will be challenging. The Committee believes that with this option, HM Customs will become even more revenue focused, as the enforcement aspects will be assigned to this specialized unit.

Creating the appropriate legislative and operational framework for an effective Customs and Border Protection Unit with the right focus on enforcement would necessitate incorporating into the regime the enhancements noted under Option 1 above. However, although this model, by its very nature, would require a high degree of domestic cooperation and information sharing, the need for joint operations on activities taking

place on land (with the attendant challenges that can result) would probably be reduced.

Option 3: Expand and update the Customs mandate to create a Customs and Border Protection Agency with legislated responsibilities for all enforcement measures relating to the movement of people and goods across borders.

Option 3 involves the legislated re-designation of HM Customs as a law enforcement agency that is responsible for border enforcement, immigration enforcement and customs services in relation to the movement of people and goods. Canada and Australia, for example, have already developed border control agencies along the lines proposed in this option. Jamaica's Customs Department has responsibility for the processing of passengers as well as goods. The UK has created a Border Agency that, as noted on its website,[17] "is responsible for protecting the UK border so that authorized travellers and legitimate goods can pass freely", but it is Immigration led and focused. UK Revenue and Customs has a broad revenue role and is also involved in aspects of monitoring compliance, by specified entities, with relevant anti-money laundering requirements. The UK model was also reviewed but, as a result of the significant differences in our regimes, was deemed to be unsuitable for replication in the Bermuda context.

Creating the appropriate legislative and operational framework for an effective Customs and Border Protection Agency with the right focus on enforcement would necessitate incorporating into the regime the enhancements noted under Option 1 above. However, although this model, by its very nature, would require a high degree of domestic cooperation and information sharing, the need for joint operations on activities taking place on land (with the attendant challenges that can result) would probably be reduced.

A key stumbling block identified under Option 1 above, that is, the ongoing challenge whereby the US authorities refuse to cooperate with the JIU because it is not a separate agency, would be removed under this updated structure.

It has already been proposed that increasing the involvement of the Regiment in maritime operations would be a significant benefit to Bermuda. Option 3 would see the Regiment's Boat Troop enhancing significantly the strength of the Island's border protection regime.

Option 3 anticipates that the legislative changes required for the Customs and Border Protection Agency could be done through the Customs Department Act, but some changes may also be required to the Revenue Act (including an expansion/amendment of the name of the Act) to reinforce further the new focus on enforcement. Customs and Border Protection Officers would be required to operate under PACE standards, consistent with other law enforcement agencies with primary responsibility for drug interdiction at the borders. Enhanced procedures relating to the screening of passengers and goods for arriving private yachts, private jets and cruise ships should be developed and implemented along with appropriate upgrades to the screening of mail. In addition, as noted in the discussions under the Department of Immigration heading, gaps in relation to screening

[17]UK Border Agency website

processes for departing passengers must be addressed. Investment in staff training and required equipment should be a priority so that the legislated responsibilities can be carried out efficiently.

A review of all of the relevant requirements in relation to addressing the border and control issues must be carried out as a matter of priority in line with Bermuda's commitment to compliance with international standards.

Committee Recommendations

Expand and update the Customs mandate to create a Customs and Border Protection Agency with legislated responsibilities for all enforcement measures relating to the movement of people and goods across borders. Having an effective Customs and Border Protection Agency is critical to Bermuda's national security and to its reputation as a quality international financial centre. Bermuda must improve its ability to protect its borders, the EEZ and its internal security. Bermuda's maritime and border enforcement, currently the responsibility of HM Customs principally, is inadequate in light of the magnitude of the task presented and the limited resources available. The mandate for Customs must be expanded and updated to give specific legislated responsibilities for enforcement measures relating to the movement of people and goods across borders. It is the Committee's view that this option provides the most effective and efficient model for the protection of Bermuda's borders, including addressing relevant issues noted in the review of the Department of Immigration and other related agencies.

Conduct a review of Bermuda's border control and protection needs and take the required steps to address the gaps as a matter of urgency. A comprehensive review of Bermuda's border control and protection requirements must be carried out as a matter of urgency to determine the precise scope and provisions of the legislative and operational framework required, along with the attendant manpower and other resources. Taking the necessary steps to ensure that the Customs and Border Control Agency is able to operate effectively is required for Bermuda to comply with international standards. However, taking such action on an expedited basis is critical in light of ongoing developments particularly in relation to Bermuda's Anti-Money Laundering and Anti-Terrorist Financing regime.

Enhance arrival-screening processes. The mechanisms in place in relation to persons and goods arriving in Bermuda must be enhanced to prevent illegal travel and movement of goods into Bermuda. Consideration must be given to expanding the current procedures in relation to private jets, yachts and other marine craft entering Bermuda to ensure that a much more efficient Immigration and Customs clearance process is in place.

This matter must be addressed during consideration of the proposed Customs and Border Protection Agency.

Exclusive Economic Zone (EEZ)

The enforcement of laws and regulations within the EEZ fall into two general areas: inshore (12 nautical miles from the shoreline) and offshore (between 12 and 200 nautical miles from the shoreline).

Issues Identified

1. It was suggested that it would be prudent to invest in the ability to identify craft in the EEZ and monitor vessels for suspicious activity. Those that land in Bermuda or have interaction with other boats from the Island should be targeted for interdiction inshore or on arrival and those moving out of the area can be reported to other jurisdictions to monitor.

2. A limited capability exists to operate inshore. However, this capability could be developed to provide an effective interdiction and enforcement force with relative ease.

3. The ability to conduct interdiction and enforcement offshore physically is more problematic and resource intensive, with uncertain returns as little is known of illegal activity in this vast area. The development of an offshore marine force would require investment in manpower, training, boats, fuel and infrastructure, all of which would take time and considerable funding.

Committee Recommendations

Conduct a review for the establishment of a protective zone for the EEZ. There is a need to establish a protective zone around the Island for the protection of Bermuda's valued marine life, while at the same time providing an avenue for security forces to interdict illicit offshore activities. Additionally, the establishment of a protective marine reserve must not negatively impact the commercial livelihood of the local fishing industry. Further research is required to determine the economic implications for a protective marine zone around the Island. The inability for Bermuda to mine its marine resources within its own EEZ in the future is a concern that must be mitigated.

Expand the Regiment's existing Boat Troop capability in an enforcement role to protect the EEZ and improve internal security. Some transit through the EEZ consists of legitimate trans-Atlantic marine vessels, but it is also the case that there are vessels entering Bermuda's EEZ to fish illegally and to transit, transfer and import contraband. A limited interdiction and enforcement capability also exists for Bermuda's inshore area. The expansion of the Regiment's Boat Troop or other designated resources to work with a Customs and Border Protection Agency and fishery authorities is seen as a positive step in addressing such matters. The Committee notes in this regard that the Regiment currently has the ability to operate on inshore waters and potentially could expand its

equipment and expertise to protect the Island inshore and offshore in those areas where most maritime activity occurs and, perhaps ultimately, throughout Bermuda's EEZ.

Department of Immigration

The key legislated responsibilities of the Department of Immigration are set out in the Bermuda Immigration and Protection Act 1956. The Transnational Organized Crime Act 2013 defines certain aspects of the Department's cross border responsibilities.

The Department, headed by the Chief Immigration Officer, has an establishment of 45 employees (three vacancies currently) and was allocated $4,894,000 for fiscal 2013/14. In order to enhance operational efficiency, just over a decade ago HM Customs was delegated the Department of Immigration responsibility for primary Immigration clearance at Bermuda's borders. Reductions were made in the manpower allocated to the Department of Immigration in order to reflect these changes in responsibility.

Issues Identified

1. The Department of Immigration does not address effectively the protection of outgoing borders, that is, it has no system in place for the effective monitoring of persons who leave the Island prior to their departure. The passengers' manifest on persons departing Bermuda via air is made available to the Department only after a flight has departed Bermuda. US Border Protection staff clear persons travelling to the US. However, information sharing from US authorities is limited. Further, there is no Immigration clearance carried out on passengers exiting to Canada, the United Kingdom, and other non-US ports. Incorporating such responsibilities into the mandate and operation of the proposed Customs and Border Protection Agency will facilitate the Department of Immigration gaining timely information on departing passengers and will enhance its ability to identify persons engaged in illegal travel. Immigration clearance by Border Protection Officers of all persons leaving Bermuda should be put in place. As an interim measure, the risks with respect to US departures could be mitigated by appropriate and timely information sharing between Bermuda and US authorities.

2. As noted above, there is over reliance on other jurisdictions to carry out adequate screening of visitors, on departing passengers. However there is also evidence of such over reliance in relation to arriving passengers. In order for border control to be conducted more effectively, the Department of Immigration and/or the proposed Customs and Border Protection Agency, as appropriate, must be empowered and required to carry out further profiling and tests.

3. The process for the dissemination and management of information on persons subjected to a travel ban under international sanctions must be enhanced. It has

been noted that not every visitor requires an entry visa for Bermuda. Persons who do require visas for entry into Bermuda must obtain a multi-entry visa, a process which requires a level of screening that is not needed for those who do not require a visa for entry into Bermuda. These gaps in the screening of persons who enter Bermuda must be addressed in a proposed review of the operational procedures relating to border protection.

4. Focused monitoring at the various (non-airport) ports of entry into the Island is required to mitigate the risk of illegal entry into Bermuda. Smaller sailing vessels entering the Town of St. George are of particular concern in this regard.

5. It should be noted that there are checks in place for children travelling, especially when not with a parent. These are enforced by the airlines to prevent a person from taking a child normally resident in Bermuda from the Island without the permission of a parent or the courts. However, there are gaps with respect to illegal travel by adults. By way of example, procedures and protocols with other agencies must be established for persons on bail or otherwise before the courts to prevent them from absconding from the Island.

6. Immigration's key focus is on work permit processing. As the Department of Immigration is not viewed as a uniformed service, there are difficulties with Immigration's access to information from other agencies. Having appropriate measures in place for effective domestic cooperation and information sharing is seen as key to effective border protection.

7. There is currently no MOU between the Department of Immigration and HM Customs, notwithstanding the fact that Customs has been delegated the key Immigration responsibility of primary passenger clearance at the Island's borders. The required MOU will be in place should a Customs and Border Protection Agency be established in Bermuda.

8. The Department of Immigration has a Customer Relationship Management (CRM) system which retains records of all Immigration applications and other historical data regarding people and their external travel. The HM Customs team does not have full access to the secondary level of information on the CRM system and must request information from the higher tier when required. In addition, the BPS has access to some of the information from this system. It was noted that both BPS and HM Customs could buy additional facilities from the software vendor. It is recommended that this gap in information sharing be addressed.

9. Mechanisms to monitor the length of stay of visitors and procedures to locate persons who overstay their allotted time on the Island are required. This matter should be reviewed as part of the review on the appropriate structure/responsibilities of the proposed Customs and Border Protection Agency.

Committee Recommendations

Develop appropriate departure screening processes and ensure that there are measures for adequate information to be made available to effectively address the risks. The over reliance on other jurisdictions with regard to the screening of departing passengers is a gap that must be addressed. Bermuda should take measures to institute its own checks on departing passengers as part of the responsibilities of the Customs and Border Protection Agency. The processing of passengers departing to US ports can be done either separately or in conjunction with US authorities, as appropriate, but a checking mechanism must be instituted in relation to passengers departing directly to Canada, the United Kingdom and other non-US ports. However, to ensure that these gaps are addressed effectively and efficiently, there must be mechanisms in place to ensure that relevant information is shared and is available on a timely basis. Ensuring that appropriate MOUs are in place and that there is access to required databases are important in this regard.

Develop appropriate mechanisms to monitor visitor lengths of stay in Bermuda. The Department of Immigration must develop appropriate mechanisms to monitor the length of stay of visitors.

Develop processes and procedures to address violation of Immigration policies. Using the resources of the Department of Immigration and/or the Customs and Border Protection Agency, it is important to put in place effective processes to locate persons who overstay their allotted time on the Island and to address violations of Immigration policies.

Department of Marine and Ports Services

The primary role of the Department of Marine and Ports Services is to oversee marine affairs in Bermuda. As such, the Department is responsible for the safe movement of both international shipping and commercial and recreational boat traffic in local waters. The Department contributes significantly to the public transportation system through the operation of the Ferry Service. It also has responsibility for port operations, including pilotage, tug and line boat assistance and the maintenance of all marine aids to navigation. Salvage work, boat and mooring registration, oil spill response, offshore marine search and rescue and seaport security are amongst the Department's areas of operational responsibility.

Another key role of the Department of Marine and Ports Services is the surveillance of the entire Bermuda coastline via radar stations located at Gibb's Hill in Southampton and the Fort George Coast Station (also known as Bermuda Harbour Radio or the MOC) in the Town of St George. The data from the Gibb's Hill location is transferred to Bermuda Harbour Radio via microwave transmission. With the exception of areas around the western end of Bermuda, all vessels entering and leaving the Island can be

effectively monitored by the radar facilities and are in communication with Bermuda Harbour Radio.

Legislated Responsibilities

The principal legislation that underpins the work of the Department of Marine and Ports Services are the Marine Board Act 1962, the International Ship and Port Facility Security (ISPS) code and the Dockyard Port Act 1905. The Department is also guided by provisions set out in ancillary legislation.

The Department has deployed a multi-layered, risk-based approach that enhances the security of Bermuda's maritime borders, upholds the safety of the community and utilizes all appropriate resources and capabilities to combat the greatest risks to Bermuda and its people, all while continuing to facilitate the flow of lawful people and goods exiting and entering Bermuda.

This multi-layered approach is internationally compliant and encompasses, but is not limited to, the following:

- border security
- disaster preparedness, inclusive of mass casualties scenarios
- law enforcement, both domestically and internationally where applicable
- laws and regulations that combat the Island's greatest transportation risks

Rescue Coordination Centre (RCC Bermuda)

The RCC Bermuda fulfils international obligations to mariners and aviators requiring search and rescue support, including coordination with US Coast Guard operations when necessary.

Vessel Traffic Coastal Radar Surveillance (VTS)

VTS serves as the backbone of the Bermuda Maritime Domain Awareness programme and allows radar, AIS, radio direction finding and electronic chart technologies to be combined on one platform to assist border control, search and rescue, environmental protection and port operations.

Coast Radio Station (Bermuda Radio, Call Sign ZBR)

The marine communications hub (Bermuda Radio, call sign ZBR) is interconnected with other Bermuda public safety agencies and fulfils regional communication obligations under the Global Maritime Distress and Safety System (GMDSS) where Bermuda has declared A1/A2 radio coverage in this area of the Atlantic. In accordance with an international broadcast schedule, 24-hour watch-keeping on international distress frequencies and the dissemination of marine safety Information are being broadcast around the clock. Navigational assistance to local and visiting recreational vessels and shipping traffic is provided on a case-by-case basis and port operations involving matters of pilotage and tugs are also facilitated.

406 MHz Beacon Registry

Management of the database holding details on beacons fitted aboard Bermuda vessels and aircraft required to fit COSPAS/SARSAT 406 MHz beacons as well as advice on beacon programming also occur at the Maritime Operations Centre. This is of direct benefit to Rescue Coordination Centre operations when an alert is detected and a response to a possible incident must be initiated based upon the beacon user information on file.

Long Range Identification and Tracking (LRIT)

The global tracking of ships is an International Maritime Organization requirement that was introduced in the last few years. Oversight of the Bermuda fleet sailing worldwide ensures that equipment faults aboard individual ships are quickly detected and port state compliance issues are avoided. Remote monitoring of position data assists in genuine emergencies of whatever form. Access to position data from foreign flag vessels is also permitted under certain circumstances, a provision that is extremely valuable for border security and search and rescue operations in the vicinity of Bermuda.

Ship Security Alerting System (SSAS)

The MOC will assist with testing of this specialist system which is available to Bermuda vessels on a pre-agreed basis free of charge. As a covert system, all other alerts received are considered to be genuine security alerts requiring verification and a potential operational response by authorities.

Seaport Security and the ISPS Code

The MOC serves as the Government's hub for Bermuda seaport security coordination with the various Port Facility Security Officers in each port. Mandatory filing with Bermuda Harbour Radio of pre-arrival information from all SOLAS vessels calling at Bermuda is required 48 hours prior to entry into Bermuda's territorial waters. Each port has an individual security plan and the provision of security guard services for cruise terminals is also a Government-contracted programme. Security screening of all persons and goods embarking or loaded aboard ship is required under the International Ship and Port Facility Security Code. Port security certification and oversight are ultimately UK Government functions delegated to the Governor of Bermuda.

Issues Identified

1. As noted and addressed previously in the section of the Report dealing with HM Customs, there is a need to develop and strengthen inshore and offshore interdiction capabilities and to establish enforcement capabilities via legislation.

2. There is potential for physical monitoring upgrades (radar capabilities, for example) and the implementation of automatic identification systems for local marine vessels. The current radar system (which includes Gibb's Hill Lighthouse) is designed to give full 360-degree coverage. There is, however, an area in the west end of the Island where coverage is not complete. This area is in need of urgent attention.

3. Targeted intelligence-led interception between the Department of Marine and Ports Services and the US Coast Guard must be formally established. Such

arrangement would allow local maritime authorities to engage in more effective policing of local waters for stowaways, drugs, weapons and other contraband within the 12-mile radius of Bermuda. Such arrangement would also enable the US Coast Guard to focus on suspicious marine activity such as illicit fishing and other illegal activities up to the 200-mile radius outside of Bermuda's national waters.

Committee Recommendations

Establish effective marine coverage for the western portion of the Island. More effective marine coverage for the western end of the Island is needed. The eastern and central portion of Bermuda's inshore waters are well covered by two radar installations based at the MOC in St. George's and on top of Gibb's Hill Lighthouse in Southampton. Coverage on the western end of the Island is less effective. A third radar post located further west to provide effective coverage at that end of the Island is vital to reduce blind spots, especially as a disproportionate amount of suspicious marine activity occurs to the west of Bermuda.

Expand the use of Marine Automatic Identification System (AIS). The Government should consider making it compulsory for all vessels travelling beyond the barrier reefs surrounding the Island to be equipped with AIS. AIS provides marine craft with a unique identity signal that allows movement to be tracked more readily and accurately by the MOC, independently of the radar system. AIS costs approximately $700 per vessel to fit and is compulsory for certain classes of vessel (e.g. commercial ships or passenger transports and larger vessels venturing beyond the reefs), but not for smaller private yachts. If it is compulsory for all marine craft travelling beyond the barrier reefs surrounding the Island to have AIS fitted, then any vessel seen operating without it would be deemed suspicious and immediately targeted for interdiction.

Department of Airport Operations (DAO)

The General Manager, Department of Airport Operations, is the senior official at the airport responsible for its smooth and efficient operation. This post was created by means of the Civil Airports Act 1949 (as amended).

The General Manager is responsible for maintaining the safety and security of the airport, developing a better facility by taking advantage of emerging market opportunities, keeping abreast of revenue projections and adhering to international norms and regulations for operating such a facility.

Legislated Responsibilities

The Civil Airports Act 1949 is the principal legislation that informs the work of the

Department of Airport Operations. The Department is also guided by provisions set out in ancillary legislation.

Issues Identified

1. In some instances, LF Wade International Airport does not fully meet the standards set by the US Customs and Border Protection Agency. Strict adherence to TSA regulations with respect to protocols and equipment is required to reduce the risk of loss of Bermuda's current pre-US Customs and Immigration clearance status.
2. There is a need to explore methods to screen incoming luggage as well as to implement greater and tighter security in the vicinity of aircraft ramps.
3. CCTV surveillance cameras need to be installed with a view to enhancing airport perimeter security.
4. More stringent standards must be established for the security vetting of airport personnel.

Committee Recommendation

Increase the security of LF Wade International Airport. Increased physical security of the operations, passenger terminals and perimeter of LF Wade International Airport is required. The presence of appropriate Border Protection personnel in the pre-clearance areas of the airport is also required, together with an expansion of CCTV surveillance and security coverage of the airport and its immediate environs.

Part Three: Implications for Bermuda's National Safety

Law and Public Order

Bermuda Police Service

The Bermuda Police Service (BPS) plays a pivotal role in maintaining the generally safe and peaceful environment that we have come to enjoy in Bermuda. The BPS enjoys a fairly high level of support from the public which looks to it for protection and support during times of natural or other catastrophes. The Government recognizes the critical importance of the BPS in our community and allocates a relatively high percentage of financial resources towards ensuring that the BPS is able to discharge its myriad responsibilities in a satisfactory manner. However, the BPS has had to operate below its establishment figure in recent years in the face of budgetary constraints.

The BPS also enjoys the support of the voluntary 70-strong Bermuda Reserve Police (BRP) which assists with many operational aspects of policing on a part-time basis. The BPS plays a leadership role in the EMO. This role is detailed later in this Report.

The BPS has a generally effective organizational structure headed by the office of the Commissioner of Police. Each Division (Community Policing, Serious Crime, Intelligence & Tasking, Support Services and Information Management Services) has carefully defined roles and responsibilities designed to address the maintenance of law and order in Bermuda.

The Commissioner's office has overall accountability for the performance of the BPS. It is responsible for the direction and leadership of the BPS, stakeholder relations, political engagement and management of the annual budget and use of funds to deliver objectives set out in the BPS's strategic and operational plans. The office is comprised of the Commissioner, the Deputy Commissioner, Assistant Commissioner (Operations) and Assistant Commissioner (Serious Crime).

The Mission Statement of the BPS is "Making Bermuda Safer". The BPS fulfils this Mission by engaging in five priority areas of operations:

- tackling crime
- enhancing public confidence
- policing with the community
- modernizing the BPS
- optimizing performance

The BPS's key activities and principal responsibilities include protecting life and property, maintaining law and order, preserving the peace, preventing and detecting crime, bringing offenders to justice in accordance with legislation, promoting community safety and increasing public confidence.

The Committee noted that the BPS was actively engaged in the implementation of its 2012–2015 Strategic Plan, a copy of which can be viewed at www.bermudapoliceservice.bm.

Key Performance Indicators

Commencing in approximately 2001, the BPS established key performance indicators which have been expanded upon in the years since. Crimes against the person, crimes against property, crimes against the community, drug enforcement activity, traffic enforcement activity and the level of public satisfaction are among the current performance indicators. Performance indicators have been cited by external reviews of the BPS as the best way to measure the effectiveness of how the organization is achieving its strategic and operational goals.

Issues Identified

1. Over the past several years, budget constraints have resulted in the slight reduction of policing and training in a number of critically important areas, thereby presenting significant challenges to the BPS's efforts to maintain the desired standards of effectiveness in all areas of policing. In the absence of increasing the size of the BPS, there are opportunities to use lesser-trained staff for those jobs that do not require fully trained Police Officers. The resource pool could include the Bermuda Reserve Police, the Regiment, private security staff, wardens and/or Police Community Support Officers (PCSOs). Static guard and other non-enforcement roles currently being performed by the BPS could be considered for agency transfer, outsourcing and/or further civilianization.

2. While joint BPS and HM Customs operations have been effectively used to convict many drug importers and conspirators over the years, there is a persuasive argument that the BPS should relinquish this area of criminal investigations to HM Customs, as is the case in many overseas jurisdictions. HM Customs acknowledge its primacy role at the borders, but does not deploy resources in support of that role nor does it possess an investigative culture or experience required to police the borders and investigate offences effectively. This situation must change. Specific recommendations in this regard are located in the Border Protection section of this Report.

3. The BPS is making notable progress in dealing with the matter of gangs in Bermuda, a phenomenon that, if left unchecked, would threaten the peace and security of Bermuda in significant ways. The adoption of specific anti-gang measures, coupled with new legislation over the past three to four years, have resulted in a decrease in gang murders, decrease in firearms incidents and increase in convictions for gang-related murders and other related offences. However, the BPS has much more to do in the war against gangs in order to protect the community in the long term. In February 2012, Her Majesty's Inspectorate of Constabulary (HMIC)

published a Report on the BPS in which several probative recommendations were made on how the BPS focus on serious and organized crime, including gangs, could be improved.

4. From June 2010, members of the Regiment Boat Troop participated in joint summer maritime patrols with the BPS in order to augment the declining BPS Marine Unit strength. There is an opportunity to examine an expanded role for the Regiment arising from the joint working experiences with the BPS over the last four summers.

5. Approximately 30% of the BPS is formally trained in Police Support Unit (PSU) roles. One PSU (22 officers) is trained to Level 1 (the highest level) and five PSUs are trained to Level 2. PSUs are the primary response contingency to any outbreak of public disorder—serious or otherwise. The Commissioner acknowledged that in reality, a serious outbreak of disorder would result in two proficient PSUs being available for mobilization. Mobilization beyond 72 hours would become extremely challenging and all existing Internal Security plans call for the support of properly trained and fully equipped Riot Units of the Bermuda Regiment to support the BPS.

    - Further, the Commissioner informed the Committee that his 'number one' public order concern was the outbreak of armed gang violence on a large scale involving multiple gang members with firearms. The Committee noted that one of the aims within the BPS's current Strategic Plan 2012-2015, endorsed by the Government, is to "consider options to increase the role of the Bermuda Regiment in the response to significant public disorder to increase mobilization and contingency capacities".

    - Other than the Regiment, there are no other trained resources immediately available to deploy in response to any public order situation.

6. The Committee heard from several presenters, including the BPS, that there was a highly disjointed approach taken to *i*ntelligence gathering, dissemination and investigative actioning at the national level. The BPS has a robust intelligence infrastructure within its Intelligence and Tasking Division. Other agencies, such as HM Customs, Immigration and Corrections, have their own intelligence infrastructure, personnel and procedures of varying effectiveness. The Committee was told that critical intelligence reports had been withheld from agencies that would have benefitted from such, simply because of a lack of trust among some agency personnel. The result of such actions has only one beneficiary—the criminal. The Committee believes that it is altogether unacceptable that an island as small as Bermuda should have an ineffective intelligence regime.

7. The BPS acknowledged that more work needed to be done on a regulatory framework for public order events where large numbers of the public congregate

for sports or entertainment. Recommendations in this regard are made elsewhere in this Report.

8. The BRP plays an important support role for the BPS. There is an opportunity for Government to consider an hourly salary system, at a reduced rate from career Police Officers, to provide a less expensive resource for general deployment against routine calls for service and public reassurance patrols. While the cost is less, it must be noted that there is currently no available funding for this proposal. The "Reserves option" should also be considered in light of Her Majesty's Inspectorate of Constabulary (HMIC) recommendations for PCSOs.
9. A review of the Court Liaison Unit which involves a significant number of Police Officers could lead to options whereby the use of Police Officers for court security might cease, resulting in significant cost and human resource savings.

Committee Recommendations

Continue the implementation of the Report of Her Majesty's Inspectorate of Constabulary (HMIC) and other strategic reports on BPS. The BPS is generally regarded in a positive light by the people of Bermuda who recognize and respect its primary role in the maintenance of law and order. The implementation of the HMIC Report and other strategic reports, including the current anti-gang strategy and current operational policing plans, must be continued.

Reallocate the Police Marine Unit to another agency. The Marine Unit of the BPS is an area of BPS operations and resources that should be reallocated to another agency or agencies, including the Regiment, as part of an overall strategy to improve border control — including the enforcement of marine laws and operational effectiveness.

Reallocate the Court Liaison Unit. The Court Liaison Unit is another area of BPS operations that should be reallocated to another Government Department, the private sector or a combination of both.

Reallocate other non-core, non-law enforcement roles. Several other areas of BPS operations and resources, including but not limited to explosive ordnance disposal, search and rescue diving, static guards and vehicle maintenance, should be reallocated to the Regiment or another Government agency, the private sector or some combination thereof.

Ensure the Island's ongoing ability to respond to outbreaks of public disorder. It is imperative that the Island's scaled response (Police followed by Regiment) to outbreaks of public disorder be preserved. This recommendation is supported by multiple previous reviews, inspections and reports on the BPS and Regiment since 1977.

Establish a National Intelligence Agency (exclusive of the Financial Intelligence Agency which is separately legislated). Existing resources and public service personnel can

be used to create a multi-agency staffed National Intelligence Agency with the focus of developing an integrated intelligence database, intelligence products and actionable intelligence to improve investigative quality and services. The Agency's mandate should have the primary focus of targeting its work against prolific priority offenders and organized criminal enterprises.

Develop up-to-date criteria for identifying the island's Key Points to be protected using an internal security situation, a disaster contingency or recovery planning. The Regiment and the BPS have typically collaborated on the identification of KPs. This collaboration needs to continue and be expanded to other agencies as appropriate to include the wider range of threats outlined in this Report.

Register and license large public events. Large public events like outdoor concerts do not require a license currently. However, these large gatherings present a significant risk to public safety and to those marshalling crowds. The requirement to register large gatherings and to have effective risk mitigation measures in place prior to the commencement of events is vital.

Establish a single emergency call and dispatch centre. Currently, the Island's emergency services operate separate emergency call reception and first response dispatch operators. The establishment of a single emergency call centre and uniformed services dispatch centre would both streamline the process of tasking emergency first responders and improve the situational awareness of separate services for incidents.

Department of Corrections

The mandate of the Department of Corrections is "to administer sentences imposed by the courts under condition of safe custody and well-ordered community life, which is exemplified by the good character and leadership of the staff, so that convicted persons can lead good and useful lives on discharge and to execute such awards of punishment on persons in custody as may be ordered by the courts or disciplinary authority".

Legislated or Main Responsibilities

The Bermuda Prisons Act 1979 is the primary legislation that governs the correctional system. However, the Department of Corrections is also guided by various other Acts of Parliament that speak to the treatment of offenders in Bermuda.

Issues Identified

1. The Department of Corrections has an experienced internal emergency response team that has thwarted the occurrence of any major disturbances since 1996. It also has a well-developed intelligence sharing structure with the BPS.

2. The Department of Corrections has established an MOU with the Bermuda Hospitals Board which allows patients to obtain medical services within the

correctional facilities, thereby reducing inmate external movement and addressing some security concerns for the community.

3. The correctional facilities are in need of up-to-date surveillance and monitoring technologies to reduce the introduction of contraband and ongoing criminal activity within the facilities. Such modernized equipment will also enhance the protection of the facilities' perimeters from unauthorized access by land or sea.
4. There does not appear to be an appropriate contingency plan for the relocation of inmates in the event of an impending disaster. According to legislation, the Minister responsible for the correctional facilities is authorized to designate a spot for relocation during an emergency situation. However, such relocation has the potential to cause harm to inmates or to create unanticipated security concerns. There is the opportunity for the Department of Corrections to work with the EMO to develop an effective and appropriate plan for the relocation of inmates in the event of a natural or man-made disaster.
5. There is the lack of a mandatory comprehensive system of re-education and rehabilitation.
6. There appears to be an ad hoc approach to security procedures within the Department of Corrections that cannot address the systemic security issues, especially when they pertain to breaches of the facilities' perimeters, the infiltration of drugs and other contraband into the facilities and ongoing gang rivalries and activity within the institutions. This situation requires urgent improvement.

Committee Recommendations

Develop and implement the necessary policies and procedures to improve the security of prisons. There appears to be an ad hoc approach to security procedures within the Department of Corrections that cannot address the systemic security issues, especially when they pertain to breaches of the facilities' perimeters, the infiltration of drugs and other contraband into the facilities and ongoing gang rivalries and activity within the institutions. This situation requires urgent improvement. The Commissioner of Corrections and his team must develop and implement the necessary policies, procedures, training and standard operating procedures to improve capabilities and performance in these areas.

Procure Adequate Equipment for the Surveillance of Prison Perimeters. Additional surveillance equipment must be acquired in order to reduce contraband entering the correctional facilities.

Draft Contingency Plans for the Emergency Housing of Prisoners. Corrections authorities must draft appropriate contingency plans for the emergency relocation of inmates from

each of the correctional facilities for implementation and use as disaster circumstances warrant.

Emergency Measures and Public Safety

Emergencies Measures Organization

The Mission of the EMO is to coordinate the efforts of Government Departments, utility services and private agencies in protecting and preserving the life of the community before, during and after severe storms, hurricanes and other critical incidents and to disseminate information to the public. The BPS plays a major leadership role in the EMO.

The effectiveness of the EMO is tested regularly. During each hurricane season, the EMO is routinely deployed for pre-season preparation and when a storm or hurricane is likely to impact the Island.

The most significant weather-related EMO embodiment in recent years was for Hurricane Fabian in 2003, the most serious natural disaster occurrence recorded in several decades. There was multiple loss of life as warnings on severity were not heeded, more than 2,000 buildings damaged, millions of dollars in marine and property losses, almost total Island shutdown, temporary airport closure, Causeway destruction, foreign press on the Island, embodiment of the Regiment to assist with significant clearing, restoration and recovery efforts for a sustained period and at least 90% energy disruption.

The EMO has also been called into operation for non-weather events, such as the Belco fire(s), the most significant operation being the 11 September 2001 terrorist attacks in the United States when Bermuda had to accommodate nine trans-Atlantic airliners which were forced to land at short notice. The operation, arguably the largest single EMO event to date, took a leadership role in requesting the Regiment to protect the airport, other ports of entry and several KPs in the immediate global-wide fall-out of the attacks.

The Bermuda public continues to look to the BPS, along with the Regiment, for protection and support during times of emergencies, severe, adverse and damaging weather systems, other catastrophic events or internal security threats. The resources of the BPS and the Regiment frequently merge during EMO operations. The EMO has Standard Operating Procedures embedded within Standing Instructions which are issued annually. When the EMO functions, the Commissioner of Police assumes the role of Director of Operations.

During the Committee's review of the EMO and information and context provided by many agencies that appeared before the Committee, it became apparent that reform is required in a number of areas.

Issues Identified

1. It was readily apparent that there were legislative deficiencies in the area of Bermuda's response to a broad spectrum of emergencies and disaster planning scenarios. The Emergency Powers Act 1963 is more than 50 years old, is heavily weighted towards authority vested in the Governor, is designed largely around severe internal security events and does not provide a modern, scaled approach with devolved authority and response to events. Further, there are no provisions for disaster planning at the national level.

2. Legislation which is practical and relevant to current and future national disaster, defence and security planning and operations is required. The Committee believes that there is a need to reform and align the Island's resources during times of national emergency more effectively. The Committee also believes that there is a need for legislative authority for these resources and the necessary responses during such times. This new legislation should put the EMO on a firm footing, prescribe specific powers for the authorities pre, during and post event and provide for planning, public order and safety at large scale events.

3. Several of the UK Overseas Territories now have clearly defined National Disaster Planning structures, some with legislative backing. The Committee therefore has determined that the Emergency Powers Act 1963 must be updated to make it more relevant to current needs.

4. There is a necessity for the EMO to broaden its remit to include the formulation of plans to mitigate the effects of a far broader set of circumstances than currently covered by the EMO's Standing Instructions. Operational procedures must be amended to reflect seamless links between the documented EMO Standing Instructions and the agency-specific responses in all scenarios, including:

    - a cruise ship fire or grounding
    - an aircraft incident
    - a large scale explosive substance or propane gas incident
    - large scale and wide spread public disorder
    - a significant internal security event

    The proposed NDP and the EMO must collaborate closely in order to ensure this outcome.

5. The Committee was not satisfied that clear, up-to-date and readily accessible contingency plans existed for the types of scenarios set out in 4. above. Moreover, the Committee was not convinced that the EMO and the respective lead agencies had sufficient understanding of these types of scenarios to ensure a smooth and effective process should a multi-agency response under an EMO umbrella be required.

6. There is scope for the EMO to re-examine its Executive and second tier structure to ensure that all key agencies (such as the Department of Health and the Bermuda Hospitals Board's Mass Casualty Response Unit) are appropriately represented to maximize efficiency in an EMO scenario and response. In the constantly changing and increasingly diverse range of potential threats to national security and in the disaster planning arena, there may very well be other agencies and NGOs worthy of consideration in this regard.
7. The Committee believes that there are several tactical level issues that should be confronted and considered by the EMO and NDC, including:
    - Improving the accessibility of public information on 'how to respond' in a critical disaster incident.
    - Establishing and documenting a full network of Emergency Assembly Points designated for specific scenarios.
    - Further research with regard to the efficacy of, and potential use of, an audible early warning system to be used in conjunction with other emergency warning measures in the event of a pending disaster.

Committee Recommendations

Establish a National Disaster Planning (NDP) office. The Committee strongly recommends the establishment of an office reporting directly to the Minister with responsibility for national security which would be empowered to coordinate and direct the efforts of Government Departments and external agencies in disaster preparedness, planning and in the provision of post disaster relief. The work of the NDP, headed by the NDC, would include building strategic responses and planning across a wide variety of potential incidents and disasters. The office would also ensure that all relevant agencies and NGOs are involved in the planning and strategy development. The NDC would then be responsible for ensuring that the Island has a plan of response for each of a wide variety of possible threats. This recommendation is consistent with the Committee reviews of numerous overseas jurisdictions which have established security councils in recent years in response to changing global threats.

Update the Emergency Powers Act 1963. The Committee recommends that the Emergency Powers Act 1963 be updated to make it relevant to current and future national disaster, defence and security planning and operations. It is the Committee's view that new legislation should put the EMO on a firm legislative footing, prescribe specific powers for the authorities pre, during and post event and provide for planning, public order and safety at large scale events.

Update the EMO mandate and Standing Instructions. The structure and working

practices of the EMO must be revised and expanded to include greater emphasis on disaster preparedness and to develop effective spontaneous reactions to emergencies other than hurricanes that could occur with almost no notice.

Review the EMO Executive and second tier structure. It is recommended that the EMO re-examine its Executive and second tier structure in order to ensure that all key agencies (Department of Health, the Bermuda Hospitals Board's Mass Casualty Response Unit, etc.) are appropriately represented. In this way, efficiency in an EMO scenario and response will be maximized.

Establish Memoranda of Understanding (MOUs) with international agencies. There is a need to review and update existing MOUs or to develop MOUs with the relevant international bodies to ensure rapid response to critical incidents impacting both the local population and foreign nationals.

Make provision for the special needs of seniors and vulnerable persons. Bermuda has a sizeable population of persons aged 65 and older, many of whom experience varying levels of health and mobility. Special consideration must be given to the needs and care for this segment of the population in the event of a national emergency or major critical incident impacting the Island.

Develop up-to-date criteria for identifying the Island's Key Points to be protected during internal security situation, a disaster contingency or recovery planning. The Regiment and the BPS have typically collaborated on the identification of KPs. This collaboration needs to continue and be expanded to include the wider range of threats outlined in this Report.

Disaster preparedness information must be updated and public education campaigns must be implemented. There was consensus amongst presenters and a view that was endorsed by the Committee that Bermuda must prepare best practice publications that cover all major natural and man-made disasters. These briefs must be made available via all main broadcast, social media, electronically and in print versions.

Networks of emergency relief centres must be established. There was widespread support amongst a cross-section of stakeholders for PCATs to work closely with medical service providers, local volunteer relief agencies and charities to establish predetermined emergency relief centres across the Island.

Establish a contingency plan for handling mass casualties. The Committee was made aware that mass casualty training was undertaken by the KEMH team in conjunction with other agencies under full live exercise conditions. The Committee was less persuaded that the Island was equipped to deal with a very large-scale mass casualty event, with casualties numbering in the hundreds. Appropriate contingency plans and/or MOUs with external agencies should be seriously considered. In addition, no contingency plan exists for the provision of life-saving medical supplies in outlying areas in the event that roads are impassable for vehicles. Relevant contingency plans must be established.

Improve communications with other emergency organizations. Include KEMH personnel in EMO and disaster planning drills. KEMH must be kept abreast of any 911 calls where the incident has the potential to require medical assistance. Currently, KEMH is not included in some emergency planning and is caught off guard at times when there are spikes in emergency registrations caused by incidents about which it has received no notice.

Bermuda Fire and Rescue Service

The responsibilities of the Bermuda Fire and Rescue Service (BFRS) include:

- provision of standard fire and rescue service capability
- response to emergency medical calls
- response to road traffic accidents (Island wide) as needed
- provision of rescue and firefighting service at the LF Wade International Airport
- management of 7,000 annual calls through an Integrated Emergency Dispatch Centre

The main effort of the BFRS is the provision of the above listed services through three full-time stations and one volunteer station.

Issues identified

1. A review of the BFRS was carried out by Sir Ken Knight, Chief Fire and Rescue Advisor, UK in 2010. While the 2010 report cited the high level professionalism of the service, it made several recommendations for greater efficiency with an emphasis on the inability of the service to provide a full complement of qualified personnel. Staff also provide first response to medical calls. Current qualifications in this area should be upgraded to increase effectiveness of first responders. The following list, though not exhaustive, mentions some of the issues facing the BFRS:
    - decreasing Government revenues
    - thin labour pool (cannot meet operational demands)
    - planned Fire Safety Act will require additional resources
    - larger multi-storey buildings exceed current capabilities
    - classification of the LF Wade International Airport exceeds capabilities
    - increased scale of cruise ships berthing in Bermuda exceeds capabilities
    - large hotels at several locations are of concern
    - Bermuda's isolation in the event of large scale incidents
    - Changing nature and complexity of modern firefighting

    Further work is required to address outstanding items that were highlighted in a second report produced in 2010 relating to ARFF with respect to the BRFS LF Wade International Airport division.

2. The 2010 review of the BFRS identified the following areas of operations that are in need of attention:
    - organizational structure
    - human resources — there is an ongoing shortage of manpower
    - training
    - fire prevention
    - dispatch
    - response

    The BFRS acknowledged that it was behind schedule with respect to implementation of the 36 recommendations set out in the 2010 report.
3. In response to ongoing concerns with its recruitment shortfall, the BFRS reported that it was considering lowering the recruitment requirements. While this approach may increase the number of successful applicants, it was not clear to the Committee that this would ensure a high performance level for the BFRS or the retention of strong recruits.

Committee Recommendations

Implement the recommendations of the Sir Ken Knight 2010 Bermuda Fire Service Report. BFRS received two independent reports on its capabilities and shortcomings in 2010. The Sir Ken Knight report made 36 recommendations that would improve the ability of the BFRS to provide services. The Committee recommends that the BFRS should, in the very least, make every effort to implement or respond to the recommendations as outlined in this Report. There should be oversight provided by the Bermuda Fire Services Board and/or the appropriate Ministry responsible for the BFRS.

The BFRS should also be required to respond to the shortfalls outlined in the ARFF Audit Report 2010 which provided and in-depth review of the capabilities of the BRFS LF Wade International Airport Division.

Address the ongoing personnel shortages within the BFRS. The lack of available manpower was pointed out in each of the above-mentioned reports. The Committee understands that the manpower shortage issues have been an ongoing challenge for the BFRS. The Committee recommends that the BFRS consider the recommendations of the Sir Ken Knight 2010 report to overcome the manpower issues by utilizing overseas secondments (possibly in the short term) and the development of volunteers to compensate for the shortage of available manpower.

Review resources required in order to handle effectively a cruise ship or large structural fire. The Committee recommends that the BFRS review the resources that it would require in the event of a serious incident aboard one of the mega cruise ships that make weekly

stops in Bermuda during April and October each year. The BFRS must also conduct a review to determine the resources required in the event of a fire or explosion in one of the multi-storey buildings that now exceed its current capabilities.

Upgrade emergency medical technicians to paramedics and implement legislation to recognize paramedics in Bermuda. This recommended upgrade would improve and enhance lifesaving capabilities for medical first responders.

Department of Works and Engineering

The Department of Works and Engineering, with a total of 349 employees, was allocated $32,285,000 for fiscal 2013/14.

Under the direction of the Chief Engineer, the Department provides a wide range of public services in engineering, design, construction, maintenance, operations of public roads, highways, bridges, water supply, sewage disposal, waste management, street lighting, building systems, automotive vehicles and equipment as well as management of the Government Quarry and Asphalt Plant.

The Department has structured its services under the following seven Sections:

- Highways Section
- Electrical and Mechanical Engineering Section
- Quarry Section
- Structures Section
- Waste Management Section
- Water and Wastewater Section
- Tynes Bay Waste-to-Energy Facility

The Department's mission is to ensure the effective and prudent management of all operations and engineering services relating to the construction, erection, improvement, maintenance and repairs of Government infrastructure.

In the context of the discussion on the safety of Bermuda and its people, the Highways Section, the Water and Wastewater Section and the Structures Sections are of particular significance.

- *Highways Section*
  The Highways Section is the custodian of all public highways, bridges, docks and coastline works, along with the management of works for private roads. This responsibility includes the planning, design, construction and maintenance of highways. Work also includes re-surfacing roads, signage and markings, constructing bus shelters and completing other new driveways and parking areas.

- *Water and Wastewater Section*
  The current Government water supply system produces approximately 200 million gallons of water each year by abstracting from fresh and brackish ground waters. The Section operates and maintains four water treatment plants at various locations across Bermuda, abstracting from three lenses for distribution. Additionally, this Section maintains approximately 21 miles of pipeline and five reservoirs which hold a total of some 2.5 million gallons, provides potable water supply to around 850 metered outlets and maintains a septage receiving facility for waste sludge at Tynes Bay.

- *Structures Section*
  The role of the Structures Section is to provide structural engineering services to the Ministry of Public Works (Department of Works and Engineering) and other Government Departments. Its primary function is to ensure that buildings and structures owned by the Government are constructed and maintained to acceptable and safe standards. This function includes all bridges, docks and public landing places outside the City of Hamilton and the Town of St. George. The Section recommends and implements remedial works to maintain buildings, bridges and other public-accessed structures in order to ensure that they are safe for public use.

Issues Identified

1. Oversight of the Causeway throughout the year is a principal Works and Engineering responsibility, particularly during hurricanes, with technical officers advising as to when the Causeway should be closed to road traffic because of danger in crossing it and when it is safe enough to allow road traffic to resume. They are required to advise regarding any structural repairs/modifications that must be effected at the Causeway following the hurricane and are charged with effecting those repairs/modifications within the available budget.

2. As Regiment personnel do not practise assembling bridging on a regular basis, there is the view that they do not have sufficient expertise to be able to assemble a Bailey Bridge, should one be required to replace a bridge damaged or lost during a disaster, without the risk of injuring themselves during construction. There is the concern that the final standard of the construction carried out by Regiment personnel cannot be guaranteed either due to a lack of currency in training and/or the competence of supervisors.

3. Department staff play a critically important role in ensuring that roads are safe and passable as soon as possible following a hurricane or storm. Regiment and Department of Parks personnel also play a major post-hurricane role in this regard. It is essential that Works and Engineering, Regiment and Parks personnel work collaboratively in order to ensure that this most important inter-agency function is discharged efficiently.

4. The Department stores building blocks and tarpaulin to be called upon in order to repair Government or, in some cases, privately owned buildings if required following a natural or man-made disaster. The Island's sole cement-producing facility is privately owned. There should be in place an agreement between Government and the cement owners which ensures that concrete supplies are available should they be required following a hurricane or related disaster.

5. Committee members expressed concern about the lack of security at the Island's reservoirs.

6. The Island's water plants are not automated and rely on personnel to operate the machinery. During a major hurricane, for example, it may not be possible for the staff to reach the plants in order to operate them. Currently, there is no provision for these services to be performed by members of the Regiment or by representatives of any other agency during times of emergency. It would be prudent to train uniformed services personnel to carry out these tasks, if required, during those periods.

7. It was noted that individuals who reside in low-lying areas close to the Island's coastline could be at significant risk from storm surges that often accompany hurricanes. The Committee was reminded of the horrific outcomes for persons in low-lying areas in the event of tsunamis. In this regard, the Committee was advised that in some countries, the Cook Islands, for example, there were tsunami warnings (sirens) that directed islanders to follow trails that led to higher and safer grounds. The Chief Engineer informed the Committee that there was funding in place that would enable completion of flood modeling work during fiscal 2013/14. He said that current data was inadequate, as it had been gathered from a single survey point. Also, Works and Engineering was in dialogue with BIOS and the BWS regarding weather buoys and tide gauges to be used for gathering data.

8. The Chief Engineer indicated his Department's support for a siren or some other early warning device that would alert Bermuda's residents should there be an urgent need to move to higher ground because of imminent storm surge. He recognized the importance of testing such a device without causing alarm among Bermuda's residents.

9. The Committee recognized that mass casualties were likely to occur in the event that a significant tsunami, earthquake or some similar natural occurrence struck the Island. The Island's response in such situations is addressed elsewhere in the Report.

10. The Committee agreed that Tynes Bay Waste-to-Energy Facility should be listed among the Island's Key Points which required special protection during times of disaster.

Committee Recommendations

Enhance security at reservoirs. Recognizing the risks associated with contamination of the reservoirs, the Committee recommends that immediate attention be given to securing these facilities.

Provide training of additional operators of water plants. The Committee, recognizing that the Island's water plants were not automated and that the normal operators might be prevented from reaching the facilities during a major hurricane, for example, agrees that Regiment and/or other emergency services' personnel should be trained to operate the plants on a stand-by basis.

Ensure availability of cement supplies during times of disaster. The Committee recommends that Government pursue a formal agreement with the owners of the Island's sole cement-producing facility that would ensure the immediate availability of concrete supplies should they be required following a hurricane or major disaster.

Ensure protection of persons who live on the coastline or in other low-lying areas of Island. The Committee noted the risks faced during hurricanes by persons who lived close to the coastline or in other low-lying areas of the Island. The Committee agrees that every measure should be taken to ensure the early completion of flood modeling work that would provide up-to-date data on risks associated with living in such areas during times of tidal surge. The Committee believes that such data would greatly assist the authorities in ensuring the safety of residents in these areas.

Department of Parks

The work of the Department of Parks flows principally from the Bermuda National Parks Act 1986 and the Bermuda National Parks Regulations 1988.

The Department, with a total of 164 employees, was allocated $10,537,000 for fiscal 2013/14.

Its mission is to provide safe and accessible facilities for active and passive recreation; to develop, enhance and maintain an Island-wide system of National Parks, including the Railway Trail, and to maintain school playing fields and other public lands throughout Bermuda.

The Department, headed by a Director, is responsible for the care and maintenance of more than 2,000 acres of land, including the National Parks System which covers about 28% of the land area managed by the Department. Additionally, the Department is responsible for maintaining all other Government-owned grounds, including post offices, sports fields, grass verges and lay-bys, school playing fields and playgrounds.

Issues Identified

1. Events like Beachfest, held in a public park, can attract up to 8,000 persons. The safety of attendees is a major concern to the Department, especially when alcohol consumption is involved. Only about a dozen Park Rangers, supported by a small number of Police Officers, were on hand at the last such event. The licensing/ management of events like Beachfest is addressed elsewhere in the Report.

2. In the past, Park Rangers were able to communicate with the BPS via radio. This means of communication is no longer available as the Park Rangers' radios are now incompatible with the updated BPS radios. However, the Department's lifeguards do have communication with the Police.

3. Much of the Department's equipment and a number of its vehicles are unavailable as they await repairs. In many cases, a lack of available funding leads to the delay in repairs. The Department is unable to discharge its responsibilities to the desired level of efficiency in the absence of the equipment and vehicles that are awaiting repairs or replacement.

4. The Department plays an important role in the EMO, particularly post-disaster, although its Director is not a member of the EMO Executive. Shortages in equipment and vehicles can impede the Department's ability to respond as expeditiously and as efficiently as desired during post-hurricane clean-up initiatives, etc.

5. When high winds and unusually rough seas occur, in the interest of public safety the Department advises members of the public that the beaches are unavailable for use. In these instances, lifeguards are withdrawn from the beaches. There is a concern, however, that even when the Department has closed the beaches and withdrawn lifeguard services, some individuals, sports personnel in particular, venture onto the beaches and into the water. There is an obvious danger in these circumstances.

Committee Recommendation

Ensure availability of equipment and vehicles during times of disaster. The Committee expressed concern that the unavailability of equipment and vehicles as they awaited repairs or replacement could militate against the Department's ability to respond as required during post-disaster clean-up exercises. The Committee recommends that every measure be taken to improve the speed and efficiency of the equipment and vehicles repairs or replacement process in order not to compromise the Department's ability to perform expeditiously and efficiently following a hurricane or similar disaster.

Office for Occupational Safety and Health

The Office for Occupational Safety and Health operates under the powers of the Occupational Safety and Health Act 1982. Its mandate is to ensure the safety of all

workers and members of the public who might be impacted by exposure to workplaces' structural integrity, atmospheres, machinery and equipment that are hazardous and can cause or have the potential to cause injury, ill health and death.

Issues Identified

1. The Office of Occupational Safety and Health is not adequately equipped to carry out the requisite range of preventative and enforcement functions to mitigate public and industrial hazards. While the Office of Occupational Safety and Health endeavours to identify risks to the public that must be thoroughly examined and mitigated, it does not have sufficient staffing resources to carry out its mandate.

2. The lack of adequate staff for monitoring and enforcement lends itself to widespread non-compliance throughout various industrial sectors. Ticketing for industrial violations has been legislated, but implementation has not taken place. Offenders have not always been brought before the courts. Prosecutions for violations have not always been successful owing to enforcement officials' lack of knowledge of the numerous industry safety regulations governing the various industrial sectors.

3. Self-regulation underpins the Occupational Health and Safety Act 1982. Companies that deal in dangerous goods or pressurized containers are governed by a self-regulation. Too often, such companies do not fulfil their obligations to operate in a safe manner, with the result that members of the public are placed at great risk. Many examples of dangerous practices were cited during the presentation by representatives of the Occupational Safety and Health Office. Legislation is required to ensure that these companies operate in a safe manner and to ensure that there is an effective enforcement regime in place. In the absence of the recommended legislation and enforcement regime, a mass casualty incident becomes a frightening possibility.

4. More focus needs to be placed on the safety and health of the public from structural, atmosphere, machinery and equipment failure. The following physical and industrial hazards are of particular concern and require contingency planning in the event of a potential accident:

    - Bermuda has eight bridges that connect the land mass. Except with the Causeway following Hurricane Fabian in 2003, there have been no comprehensive engineering inspections of these bridges in Bermuda for several years. The only inspections that have been carried out are visual ones that do not entail any detailed structural analysis. Little documentation, if any, is produced following those visual inspections. Two bridges that are of particular concern are the Causeway which connects the airport and St. George's Parish to the mainland and which is particularly vulnerable in storm conditions and the Swing Bridge which is in need of critical remedial work. The resulting impact of any failure of these two bridges would be the isolation of several densely populated communities in the St. George's area which would be

without easy access to an acute care treatment (were the Lamb Foggo Acute Care Centre to cease operation), substantial provisions of food and water or emergency housing in the event of a natural disaster. There is a need to provide contingency plans for emergency supplies.

- There is potential for the grounding of cruise ships and oil tankers in the North Channel and the Narrows, particularly the larger mega ships that sail into Bermuda. There is also the potential for local commuter ferries, which carry passenger loads from 170 to 300 persons, to collide with objects at relatively high speeds resulting in sinking or capsizing.
- Bermuda has numerous businesses throughout the Island that are located in densely populated commercial and residential areas, including several large commercial entities that are critical to the health and economic welfare of the Island. There is a potential for industrial fires, explosions or transport accidents in densely populated areas in the absence of proper compliance and enforcement of regulations.
- Owing to loopholes in the Liquefied Petroleum Gas (LPG) Act 1988, there is evidence that LPG is being inappropriately stored and transported throughout the Island.
- A number of commercial entities have boiler systems that need to be upgraded to current international industrial standards.
- There is a need for all persons who handle hazardous chemicals to be trained in the handling, inspection, transportation and storage of such chemical compounds.
- Bermuda is inadequately equipped to handle a large chemical fire. Most companies do not conduct fire-training drills on a consistent basis or carry appropriate firefighting equipment. There is general lack of disclosure of chemicals stored on site at various business locations. It has also been noted that there is insufficient firefighting foam or equipment on Island for fighting chemical fires. Of concern is the fact that the BFRS does not have trucks with sufficient capacity or reach to combat a fire on a mega cruise ship or, indeed, a smaller cruise ship of the size normally accommodated either in Hamilton or in St. George's.
- There is a need for the more effective enforcement of crowd control in confined areas at large recreational, sporting and social events. Clubs must have provisions to monitor weight and numbers of persons allowance on scaffolding (i.e. camps) at large sporting and other events. Establishment of a regulatory framework would potentially ensure that private vendors and other agencies do their part in the management and safety of major public events.
- Public water storage areas are generally insecure and easily accessible to the

public. This situation must be remedied and is addressed elsewhere in the Report.

- Belco is located in a densely populated area. There is public access through the centre of the plant's turbines and fuel tanks by way of a public road. Re-zoning of the public roadway is recommended for the safety of the public. Additionally, Belco wishes to establish diversification of its plant and generating assets across various locations in an effort to provide redundancy in the event that the central location should become isolated from the rest of the Island.
- Gas utilities in close proximity to electrical cables pose a risk to the community. Belco must address the potential dangers of water, oil and electrical cables as indicated in the TSSA 2005 safety audit.[18]

Committee Recommendations

Strengthen Occupational Safety and Health legislation. Companies that deal in dangerous goods or pressurized containers are governed by a self-regulation. Too often, such companies do not fulfil their obligations to operate in a safe manner, with the result that members of the public are placed at great risk. Many examples of dangerous practices were cited during the presentation by representatives of the Occupational Safety and Health Office. Legislation is required to ensure that these companies operate in a safe manner and to ensure that there is an effective enforcement regime in place. In the absence of the recommended legislation and enforcement regime, a mass casualty incident becomes a frightening possibility.

Provide safety training and qualifications for Marine and Ports staff. The Committee is aware that local Marine and Ports staff on ferries and other vessels receive some first aid and firefighting training to local standards. The Committee recommends that at the very least, all Marine and Ports operational staff are trained to STCW international safety certification standards.

Develop a long-term plan to build the resources of the Office of Occupational Safety and Health over time. The Office for Occupational Safety and Health lacks sufficient staffing and other resources to carry out its legislative remit. The broad scope of its responsibilities requires increased support for the office to reduce the potential for industrial accidents.

Acute Care and Public Health

King Edward VII Memorial Hospital (KEMH)

KEMH is the only acute care hospital in Bermuda. The safety and security of patients and staff are ongoing concerns at KEMH which must be included in any disaster simulation

[18]Belco Safety Audit Findings and Recommendations (TSSA) 28 October 2005.

exercises to ensure that a coordinated response is provided. Until now, inclusion in the distribution list for simulation exercises has been inconsistent. KEMH, as the only hospital on the island, must be able to continue its normal daily business (care for acute patients outside of the scope of the disaster) even while providing care in a disaster response. A coordinated response is key to its ability to do so.

Issues Identified

1. Lack of coordination with KEMH has resulted in incidences of health protocols not being followed during simulation exercises. Other agencies often tend to focus only on their own duties and responsibilities, a situation that can lead to critical health issues that arise in a disaster scenario being inadvertently overlooked. Ensuring a coordinated response across all agencies and including KEMH in the planning of disaster exercises will alleviate this problem. Communication between the EMO and KEMH is oftentimes less than satisfactory during times of critical incidents, a circumstance that hampers the hospital's ability to react in the most efficient manner. KEMH must be informed immediately of all events which have an effect on health issues. Lack of notification of a recent fire at the Pembroke Dump at Marsh Folly resulted in smoke inhalation through the hospital's air-conditioning system and other critical medical issues for some vulnerable patients. That incident highlights the need for communication between all emergency services and the hospital.

2. Budgeting concerns led to the BHB decision to close the Lamb Foggo Urgent Care Centre with effect from 1 December 2013. That decision was put on hold, with a definitive decision on the facility's future to be announced six months hence. The Committee noted that the closure of the Lamb Foggo Urgent Care Centre would leave a huge gap in emergency services should a disaster occur, especially in the event of a plane crash at the airport. Additionally, the facility's closure would leave a large section of the east end vulnerable in the event of a Causeway closure due to a hurricane or other disaster.

3. The ability of KEMH to deal with a mass casualty event relies on several resources, including the availability of facilities, skilled manpower and medical supplies. Reasonable supplies of consumables are maintained at the hospital. However, there is need for a contingency plan to provide more bandages, bloods, medicines and other critical supplies. The hospital currently can treat a half a dozen serious theatre cases simultaneously and over 100 walking wounded, but the medical consumables such as bandages, pharmaceuticals and chemicals may well be exhausted quickly in the event of a mass casualty disaster.

4. In the event of a mass casualty incident at a remote site, KEMH is likely to establish a hub at the scene to deal with the less serious injuries, with only the most serious incidents transferred to the hospital for treatment. A large tented area has been suggested as an option for the on-site treatment of the less serious injuries. A more practicable and far more cost-effective solution might be the identification

of a single large building (a school hall, for example) in each parish that might be used for the on-site treatment of the less serious injuries.

5. More ambulances are required due to malfunctioning of the hospital's current fleet of ambulances. New ambulances for KEMH will be purchased in the near future. In the interim, additional ambulances have been borrowed from St. John Ambulance for routine emergency responses. The Committee noted that in the event of a critical incident, there currently is the possibility of insufficient ambulances available for response.

6. There is a need for legislation to enable paramedics to attend life-threatening emergencies. King Edward VII Memorial Hospital's ambulances are staffed by emergency medical technicians (EMTs) with more basic life-saving skills than paramedics. Paramedics currently are not recognized as a 'specified profession' as set out in the First Schedule of the Allied Health Professions Act 1973, with the result that the sole qualified paramedic who works for Bermuda Hospitals Board is unable to practise as a paramedic or use his paramedic skills when responding to 911 calls. The same restriction applies to a BFRS officer who was recently trained and certified as a paramedic, but is unable to use the qualification.[19] Recommendations in this regard have been addressed under the BFRS Committee Recommendations section.

7. Hospital trained EMT-Intermediates in Bermuda can also establish intravenous/ intraosseos (direct bone) access and can administer IV fluids, as well as a limited number of medications, in the field. There is a need for BFRS personnel to be trained similarly to allow these responders to provide onsite assistance in emergencies. There is an effort being put forward that recognizes the role of paramedics which has the potential to save many more lives by first responders and a relevant recommendation is included in the BFRS Committee Recommendations section.

Committee Recommendations

Develop a sustainable ambulance capability. The mechanical reliability of the BHB ambulance fleet is poor. It is essential that consideration be given to achieving a sustainable ambulance capability on the Island.

Establish locations for portable mass casualty treatment facilities. In the event of a mass casualty incident at a remote site, KEMH is likely to establish a hub at the scene to deal with the less serious injuries, with only the most serious incidents transferred to the hospital itself for treatment. A large tented area has been suggested as an option for the on-site treatment of the less serious injuries. A more practicable and far more cost-effective solution might be the identification of a large building (a school hall, for

[19]*The Royal Gazette* article Tuesday, 17 December 2013.

example) in each parish that might be used for the on-site treatment of the less serious injuries.

Increase the numbers of medical personnel on duty during emergencies. The number of doctors and nurses on staff during an emergency is currently inadequate and should include private practitioners in order to provide sufficient coverage for clinics, leave and training. Without this increase, KEMH will be left exposed at these times.

Department of Health

The Department of Health is governed by the Public Health Act 1949. It also has various responsibilities as set out under the Bermuda Hospitals Board Act 1970 and other allied health legislation. The mission of the Department is to "promote and protect the physical, mental and social well-being of the community, to enable the Island's residents to realize their optimum quality of life." This mission is achieved through ensuring the following outcomes:

- to increase public awareness and understanding of the factors influencing health
- to promote and encourage healthy behaviours
- to prevent the spread of disease
- to mobilize community partnerships to identify and solve health problems
- to protect against environmental hazards
- to assure accessibility and quality of health services

Issues Identified

1. The Somerset Clinic is vulnerable to flooding as a result of its location in a low-lying area.
2. The level of vaccine held by Bermuda is determined by an external forum and not by the Department of Health or the Ministry of Health and Environment. The UN sets global limits on supply and holdings of specific medicines. The Pan American Health Organization (PAHO) is the broker for vaccine purchase, not Bermuda officials. If there is an emergency and a quick response is required, the Ministry of Health and Environment must negotiate through PAHO, a requirement which impacts the response time to some emergencies. PAHO should be made aware of the shortages of some medicines caused by the huge increase in the number of surgical procedures. Given its size and isolation, Bermuda should make application for an increased stock of these medicines.
3. No polices have been established for the handling of mass casualties or the storage of deceased persons resulting from a critical incident. No contingency plan exists

for the provision of life-saving medical supplies in outlying areas in the event that roads are impassable for vehicles.

4. Regular maintenance instead of reactive repairs is needed for medical equipment and facilities to ensure that emergency services continue to function at optimal capacity during a sustained disaster.
5. The number of doctors and nurses on staff during an emergency is currently inadequate and should be raised in order to provide sufficient coverage for clinics, leave and training. In the absence thereof, KEMH will be left exposed at these times.
6. The Department of Health has approximately 300 personnel under its remit. However, there was little in the way of established cross agency cooperation as most Departments operate in a silo.
7. Public health laboratories do not have sufficient capacity to respond to a prolonged infectious disease outbreak.
8. There is no complete climate change adaptation plan which includes planning for health threats posed by extreme weather events or changing sea levels.
9. Stronger procedures are needed to curtail the over prescription and overuse of some medicines, particularly antibiotics, which can result in drug resistant strains of bacteria which tend to proliferate in the wake of mass casualty occurrences or pandemics.

Committee Recommendations

Develop an appropriate medical equipment maintenance schedule. Regular maintenance instead of reactive repairs is needed for medical equipment and facilities to ensure that emergency services continue to function at optimal capacity during a sustained disaster.

Develop a plan to promote increased collaboration within the Department of Health. The Department of Health has approximately 300 personnel under its remit. However, there was little evidence of established cross agency cooperation with other Departments.

Improve procedures for monitoring the overuse of some medicines which result in drug resistant strains of bacteria. Stronger procedures are needed to curtail the over prescription and overuse of some medicines, particularly antibiotics, which can result in drug resistant strains of bacteria which tend to proliferate in the wake of mass casualty occurrences or pandemics.

Develop a climate change adaptation plan. There is no complete climate change adaptation plan which includes planning for health threats posed by extreme weather events or changing sea levels.

Consideration must be given to relocating the Somerset Health Clinic due to its low-lying location and its susceptibility to flooding. Consideration should also be given as to whether a new location could also double as a mass casualty treatment centre for the west end.

Work with PAHO to increase medicine stocks. PAHO should be made aware of the shortages of some medicines caused by the huge increase in the number of surgical procedures. Given its size and isolation, Bermuda should make application for an increased stock of these medicines.

Part Four: Implications for Bermuda's Economic and Environmental Security

Economic Security

Bermuda has earned a reputation as a quality international financial centre with two main pillars in its economy — international business and to a much lesser extent, tourism. Bermuda thrives on its strong commitment to relevant international standards and its ability to provide services, resources and infrastructure to these two sectors. It can be said that most other industries in Bermuda support the two key pillars.

Given the delicate nature of Bermuda's economy, any failure to comply with key international requirements or any sustained interruption in the ability to provide required services and infrastructure to these two main sources of income would negatively impact the Island's reputation and its ability to support its population.

Financial Intelligence Agency (FIA)

The FIA was established by the Financial Intelligence Agency Act 2007 (the "FIA Act") to act as an independent agency authorized to receive, gather, store, analyze and disseminate information relating to suspected proceeds of crime and potential financing of terrorism received in the form of Suspicious Activity Reports ("SARs"). The Proceeds of Crime Act 1997 and the Anti-Terrorism (Financial and other Measures) Act 2004 impose certain reporting obligations on all persons who, as a result of matters encountered in their business or profession, have suspicions relating to proceeds of criminal conduct or terrorism financing.

Subject to the restrictions imposed under the FIA Act, the FIA may disseminate such information to various domestic and foreign bodies including the BPS, HM Customs and foreign financial intelligence authorities. The FIA team is led by the Director and includes a team of analysts to carry out the necessary duties of the agency. To facilitate domestic cooperation and effectiveness, the agency staff includes persons seconded on a rotational basis from the BPS and HM Customs. The Minister of Legal Affairs appoints the Board of Directors which oversees the operation of the FIA.

Financial Crime Unit (FCU)

The FCU is a Department of the BPS, tasked with the investigation of financial crime, including money laundering, fraud and other "white collar" crime. The FCU reports to a senior official in the BPS to underscore the importance of the work being undertaken by this unit. Due to the nature of their various responsibilities, there is close cooperation between the FIA and the FCU, particularly in relation to money laundering matters.

Issues Identified

1. Failure to complete investigations and prosecute offenders has the potential to

impact negatively Bermuda's reputation as a safe and financially stable jurisdiction. Given the importance of financial services to Bermuda's economy and the ongoing challenges associated with combating money laundering and other such financial crimes, Bermuda must work diligently to maintain its reputation as a quality international financial centre. In particular, it must ensure that compliance with the international requirements of bodies such as the Financial Action Task Force is a high priority for all relevant agencies and entities. Increased staffing and other resources must be allocated in order that the FIA and the FCU might combat more effectively increasing incidents of white collar and financial crime.

2. There is a need for the Government to consider a modern and more efficient asset confiscation and forfeiture régime to ensure that the maximum level of funds is realized and that matters are addressed in a timely manner. Information received concerning the monetary value of suspicious transactions reported to law enforcement authorities suggests that the proceeds which persons are realizing from their criminal activities have grown considerably during the past 18 months. Therefore, every effort should be made to ensure that criminals are not allowed to utilize these ill-gotten gains. Further, the proceeds from confiscated or forfeited assets could be used to underwrite the cost of a more robust framework for the analysis, investigation and prosecution of financial crime, as well as other costs relating to the protection of Bermuda's borders.

Committee Recommendations

Update Bermuda's asset confiscation and forfeiture regime. The Government must undertake further revisions to Bermuda's asset confiscation and forfeiture regime to maximize the funds received from such assets and to ensure that proceeds are received by authorities in a timely basis. Reinvesting such funds into initiatives to combat money laundering and protect Bermuda's borders will be a positive step in enhancing Bermuda's economic security.

Increase staffing and other resources for the FCU and FIA. Deterioration of Bermuda's economy has the potential to result in increased criminality, thereby impacting negatively its reputation as a safe and financially stable jurisdiction for international business. Increased staffing and other resources must be allocated to the FCU and the FIA to combat increasing incidents of white collar and financial crime. Bermuda must continue its work to achieve a higher level of compliance with international requirements; enhanced resourcing will play a key part in progressing the required initiatives.

Business Continuity

Bermuda must ensure that local and international businesses can recover quickly from

catastrophic events. The main areas of concern are:

- Infrastructure—electric supply, transportation, buildings and offices, etc.
- Information Technology—data storage, IT networks
- Communication—locally and internationally, communication links and post event communications

Prolonged breaks in any of the above-mentioned services and facilities could make business continuity difficult or impossible. Businesses need to have in place adequate contingency plans that address likely scenarios. Open channels of communication and the establishment of strong networks between the business sector, the proposed NDC and other relevant agencies will be beneficial in the event of an emergency.

Committee Recommendations

Business associations should work with the NDP to create a business continuity plan. Local and international business associations should combine and meet with the National Disaster Planning office to develop a coordinated business continuity plan.

Coordinate post-disaster outgoing communications with business associations. Given Bermuda's position as a highly regarded international financial centre, there is a need for outgoing communications following a disaster to be well managed so that information disseminated portrays the situation accurately and does not undermine Bermuda's reputation as a stable and safe financial services jurisdiction.

Information Technology, Data Security and Telecommunications

Existing laws in Bermuda do not adequately address cybercrime. Cyber security has become a significant national security concern in that electronic information systems are vital for maintaining the national and financial security of any country. This is especially important in Bermuda, a leading international financial centre with particular focus on the provision of insurance and reinsurance services. Unauthorized access to governmental or nongovernmental infrastructures can create a serious threat and have a negative impact on a country's political, economic and military security.

Issues Identified

1. Bermuda has experienced or has the potential to experience the following types of cybercrime:
    - Intrusive offences such as illegal access (hacking), data espionage and data interference.
    - Content-related offences such as spam, child pornography, religious radicalism and other violence propaganda.

- Copyright and trademark related offences such as copyright infringement and piracy, phishing and cyber-squatting.
- Computer-related offences such as advance fee fraud, credit card fraud, internet banking fraud, forgery and identity theft.
- Combination offences such as cyber-terrorism, cyber-warfare and cyber-laundering.

2. One of the topics raised by telecommunications service providers and the business community was the growing concern with telecommunications fraud and the negative effect it can have on businesses domiciled in Bermuda. There are an estimated 400 different types of fraud permeating the wholesale telecommunications market.

3. Telecommunications fraud is currently estimated by service providers to cost the global industry upwards of $40 billion dollars this year.[20] Industry stakeholders believe that the growing trend is driven by a huge global criminal element that sees this as more infinitely lucrative than other traditional exploits. Increasingly, as these scams and schemes have become more sophisticated, the perpetrators' carriers are finding themselves out-manoeuvred and having to absorb the cost. Additionally, perpetrators of these crimes are increasingly more difficult to apprehend.[21]

4. Legislation was suggested whereby telecommunications carriers domiciled and licensed in Bermuda will not be responsible for any outbound traffic settlement for traffic that does not originate from Bermuda. It is believed that this provision will provide some level of protection to the people of Bermuda and some level of protection for both domestic and international businesses domiciled in Bermuda.

Committee Recommendations

Update Bermuda's current legislation and develop the necessary protocols for international cooperation to enable the Island to address cybercrime effectively. The increasing incidences of cybercrime pose a serious threat to Bermuda's national security. Cybercrime challenges the effectiveness of laws and law enforcement capabilities globally. Gaps in current legislation, resources and expertise leave Bermuda susceptible to undetectable cybercrime and vulnerable to loss of business, data, money and sensitive Government information.

Develop appropriate legislation to mitigate telecommunications fraud. One of the topics raised by telecommunications service providers and the business community was the

[20]TeleBermuda International Ltd (TBI) interview 6 September 2013.

[21]*Capacity Magazine* September 2013. (online) http://www.capacitymagazine.com/Article/3255039/FRAUD-and-SECURITY-BUSINESS-BRIEFING-2013-The-definitive-guide-to-fraud-types.html

growing concern with telecommunications fraud and the negative effect it can have on businesses domiciled in Bermuda. There are an estimated 400 different types of fraud permeating the wholesale telecommunications market. Telecommunications fraud is currently estimated by service providers to cost the global industry upwards of $40 billion dollars this year.[22] Legislation was suggested whereby telecommunications carriers domiciled and licensed in Bermuda will not be responsible for any outbound traffic settlement for traffic that does not originate from Bermuda. It is believed that this provision will provide some level of protection to the people of Bermuda and some level of protection for both domestic and international businesses domiciled in Bermuda.

Environmental Security

Energy Security

Belco provides 98.2% of the electrical supply to the Island. Government-operated Tynes Bay Waste-to-Energy Facility generates approximately 1.8% of the Island's electrical supply.

Issues identified

1. There are no significant alternative sources of power supply to the Island. The introduction of alternative sources of renewable energy is needed as a priority to diversify the sources of energy for the Island. A sustained interruption to the power supply resulting from a critical incident impacting the Belco power plant would severely impact the Island's ability to conduct its normal business and could present a significant health and public safety risk.
2. TeleBermuda International Ltd. (TBI) has electrical generating capacity located in St. David's to power LF Wade International Airport and St. David's temporarily in the event of critical power loss to the Island. An inventory of other various sources of electrical generating capacity in the event of critical power loss to the Island is required.
3. COMOPS and emergency bunkers must have enhancements with regard to maintaining a mechanism for independent supply in the event of catastrophic loss of electrical power. Additionally, a prioritization plan for Government Departments must be developed to ensure continuity of service.

Committee Recommendations

Establish alternative energy sources. Bermuda must actively promote the continued development of the use of alternative sources of renewable energy such as solar power for both business and individual households to diversify the sources of energy for the Island. Legislation should be established to require Belco to purchase the excess electricity

[22]TeleBermuda International Ltd (TBI) interview 6 September 2013.

generated from solar panels from individual companies and households. This provision will encourage the Island's transition from absolute dependency on a single source for energy.

Diversify the current single generating capability across multiple locations. Belco has considered the feasibility of locating its generating capacity across several locations on the Island in the event that the St. John's Road plant experiences catastrophic failure. This alternative arrangement should be explored.

Food Security

It is important for Bermuda to reduce its reliance on overseas import of food and to implement the necessary reforms to increase its local food supply. With 64,237 people living on 20.5 square miles, Bermuda is one of the most densely populated countries in the world. This population density impacts the Island's ability to produce sufficient food locally to feed the population. Any unforeseen disruption to the food supply poses a significant risk to public order in the form of food hoarding, increased crime and public unrest. It also has the potential to impact Bermuda's reputation as a socially and economically stable jurisdiction.

Issues identified

1. Various estimates suggest that Bermuda has the capacity to produce from 15% to 25% of its food supply with the remaining portion of food being imported primarily from the United States.[23]

2. It is estimated that the amount of food produced available on Island at any given time can feed the population for approximately three to four weeks at the current rate of food consumption. While this amount would normally be sufficient surplus for the Island, it should be noted that the terrorist attacks in the US in September 2001 saw the closure of all US ports for approximately ten days. A subsequent port closure occurred in 2012 in New York in the aftermath of Hurricane Sandy. On both occasions, there was widespread evidence of food shortages throughout Bermuda primarily due to panic buying and food hoarding.[24]

3. The establishment of a commercial fishery industry with onshore processing should be explored. This provision might provide a sustainable source of food for Bermuda and provide gainful employment at sea and on land for persons who otherwise find it difficult to find work, thereby alleviating social problems associated with unemployment.

4. The Committee was informed that the current lionfish invasion of Bermuda's local waters has the potential to destroy the 12-mile radius component of Bermuda's

[23]McKittrick, T. A., 2010, "The Role of Agriculture in Bermuda's Future", report prepared for the Environmental Coalition of Bermuda (ECO Bermuda).

[24]Ibid.

EEZ and to threaten the Island's local food supply through the destruction of marine life that sustains the coral reefs and the widespread destruction of the fish in local waters.

Committee Recommendations

Conduct a review for the establishment of a commercial fishery. The establishment of a commercial fishery industry with an onshore processing plant should be explored. This provision will encourage the utilization of the EEZ and could provide a great portion of the seafood the Island currently consumes. The establishment of a commercial fishery with onshore processing could also provide gainful employment at sea and on land for those who otherwise find it difficult to find work, thereby alleviating, to some extent, social problems associated with unemployment.

Monitor the emerging danger to Bermuda's inshore fish stocks and coral reefs due to the impact of the lionfish. Working with other South Atlantic nations tackling the same challenges, Bermuda must develop a strategy for effective control of the lionfish population that currently threatens its inshore fish stock and coral reefs

Improve the administrative and legal framework for local agriculture and encourage the development of innovative agricultural practices. Improvements in the administrative and legal framework for agriculture could mitigate risks to food security, assist in the sustainable development of agriculture and potentially provide employment for Bermudians through modernization of farming techniques and the provision and protection of incentives to encourage the full utilization of arable farmland. Create and/or enforce legislation to ensure that all existing arable land is protected against change of use.

Develop a plan for emergency food distribution. Contingency plans must be developed with food importers and retailers for administrative oversight for the sourcing and disbursement of emergency food supplies if needed in the event of a sustained interruption of food imports to the Island resulting from a local or international disaster.

Bermuda Weather Service

Bermuda Weather Service (BWS) is operated by BAS-Serco Ltd., a joint venture between the local company, Bermuda Aviation Services (BAS), and the international outsourcing company, Serco, under a contract with the Department of Airport Operations (DAO) at LF Wade International Airport. BWS has operated as a national weather service since 1995 to provide weather information for the DAO following the withdrawal of the US Navy from Bermuda.

Issues Identified

1. It was assumed prior to reviewing the BWS that the organization was contracted

to provide weather advice to the Government as a whole. This is not the case and no such formal contract exists for key elements of a national weather service. The fact that the BWS is only contracted by the DAO and is under no obligation to share its data and analysis with the wider country is a major concern.

2. Failure of critical severe weather monitoring equipment and the lack of back-up equipment are major concerns also. The Doppler radar, installed in 2005, is a very complex piece of equipment which is run continuously in Bermuda's salt corrosive environment. Despite some commonly used spare parts in stock, not all parts for this equipment are available in Bermuda and must be sourced from overseas, a situation that can lead to significant delays in carrying out urgently required repair work. Additionally, the expertise for more complex repairs is provided from abroad and the availability of a repair technician depends on the manufacturer's schedule of commitments to other installations in other parts of the world. The significance of this situation was recently seen when the Doppler radar was inoperable in August and early September 2013, the height of Bermuda's hurricane season. In fact, the radar system was repaired only days before Tropical Storm Gabrielle hit the Island; fortunately, BAS-Serco was able to increase the priority of the task with the manufacturer who had earlier indicated that its repair technician would not be available to carry out the repairs until December 2013.

3. There is currently no early warning system[25] to warn Bermuda's residents of an impending short notice weather disaster or other emergencies. Currently, the Island relies on a call to the EMO command centre and posting the information on the BWS website for warning of such events. Neither of these warning strategies will reach the member of the public if they are not keeping a constant watch on the BWS website. Moreover, during silent hours, those sleeping would be completely unaware of approaching severe weather. Consideration must be given to the endorsement of a scripted warning along with an audible warning system throughout the Island and a plan to educate the public on actions to be taken in the event of such an emergency.

4. The absence of formal warning systems, emergency communication protocols and public education safety campaigns for sudden pending disasters also render the Island particularly vulnerable in the event of ocean flooding or a tsunami. The Committee was informed that most of the population does not consider ocean flooding and tsunamis as risks to Bermuda. The lack of concern in this regard may be attributable to a lack of local expertise in physical oceanography and/seismology and the fact that most local residents are not aware that in 1929 a tsunami was spawned off the Grand Banks near Newfoundland.[26]

[25] Thirty-two countries participated in a full-scale tsunami alert exercise in the Caribbean on 20 March 2013. The goal was to test the reaction capacity in countries of the Caribbean and adjacent regions, including the East Coast of Canada and the United States, the Gulf of Mexico and Bermuda. The exercise was organized under the auspices of UNESCO's Intergovernmental Oceanographic Commission (IOC).

[26] *The Royal Gazette* article, 21 November 1929.

It is worth noting that even a relatively small tsunami of less than one metre in height above the surface can cause significant damage to Bermuda's coastal infrastructure and lead to loss of life due to dangerous currents. This scenario is particularly relevant to Bermuda, given the increased seismic activity in recent years off the north coast of Puerto Rico to the south of the Island, the orientation and popularity of Bermuda's south shore beaches and the high population density and structural development along Bermuda's coastline and low-lying areas that have occurred since 1929.[27] In the event of an approaching tsunami, residents would have no more than 30 to 40 minutes in which to secure refuge on higher ground inland.

5. BWS has no means to confirm wind wave heights; it relies solely on wave height predictions from model and satellite data. A series of buoys strategically located around Bermuda's open waters would provide more accurate wave height predictions. The availability of accurate information in this regard could prove to be useful during hurricane forecasting for storm surge warnings and for relocating people from low-lying areas.

6. When a hurricane moves towards Bermuda, it produces a collective anticipation of the event amongst residents. If the system then stalls short of the Island, there is a tendency for the population to underestimate the impending impact of the severe weather and to become almost dismissive of it. This response to a stalling hurricane is very dangerous and the public must be educated to guard against complacency in the event of such occurrence.

7. More public education also is needed to reduce public reliance on the predicted strength of approaching hurricanes. Many of these systems are hybrid systems, that is, combined hurricanes and tornados. These hybrid storm systems can conceivably result in a hybrid Category One hurricane causing more damage, even resulting in injury or death, than a non-hybrid Category Four hurricane.

Committee Recommendations

Establish a National Weather Service. BWS is a private entity and not the official forecasting service for the Island. Bermuda has been without an official weather service since the closure of the US base in 1995. There is a need for the Government to formalize an agreement with a private entity for provision of weather service products or to establish "in house" weather forecasting and reporting mechanisms.

Install a backup Doppler Radar System. BWS should have a back-up Doppler system installed in the event of failure of the current system. A less expensive and less complex system should be purchased to provide continuity of basic prediction services if and when the current system fails.

[27]"Carib Wave 11 Tsunami Exercise, 23 March 2011" report prepared by the Bermuda Weather Service.

Establish an Early Alert System (EAS).[28] The Committee invites the authorities to conduct further research into the efficacy of, and potential use of, an audible early warning system to be used in conjunction with any emergency response to prepare the Island for an imminent disaster or event of significant magnitude. There were recurring concerns expressed by presenters that the Island was not currently well served in terms of warnings for unexpected disaster such as a tsunami or other severe threats that could occur at almost no notice. In these circumstances, there was the suggestion that an audible air warning system (air-raid type sirens strategically placed throughout the Island, for example) could be used as a cost-effective means to signal an alert which would trigger the public to monitor emergency broadcasts over a range of media.

Conclusion

The National Security and Defence Review Committee considers it a privilege to have been invited by His Excellency the Governor, Mr. George Fergusson, and the Premier of Bermuda, the Hon. L. Craig Cannonier, JP, MP, to undertake this fundamental review of Bermuda's security needs, to assess the resources needed to meet those needs and to develop recommendations in respect of the structure and organization required.

The Report which we have pleasure in presenting to the Governor and to the Premier today — "Towards A More Secure Bermuda" — identifies the current state of the Island's security assets, explores areas where those assets are sufficient for today's world and where those assets need to be enhanced and makes a series of recommendations aimed at ensuring that those who live in Bermuda are safe and secure.

As evidenced by the comprehensive nature of the Report, our review of the Island's security assets, needs and requirements addressed the more obvious and established security assets such as the Bermuda Regiment and the Bermuda Police Service. It also addressed agencies dealing with border control and protection, the health and safety of residents and concerns related to economic, environmental and food security.

In presentations made to the Committee, both in writing and/or in person, we discovered that security concerns touched upon a wide variety of other related issues and topics such as the post-conscription operation of the Regiment, the structure of the Emergency Measures Organization, food security, the oft-cited need for a National Disaster Coordinator and Office, the creation of enhanced plans and policies to address a mass casualty disaster, contingency plans in the event that the Island is impacted by a catastrophic hurricane, storm or tsunami, the potential impact of cybercrime and other such risks on Bermuda's economic well-being and stability and the need to ensure that Bermuda's Key Point facilities are safe and secure.

[28]EAS is the term that the International Early Warning Programme coordinated by the United Nations uses for all systems that are used to send emergency population warnings. EAS is often activated when an unpredicted emergency such as a tsunami, tornado, earthquake, or other natural disasters occur. The vast majority of EAS alerts are generated by the National Weather Service. *Source: Wikipedia, the free encyclopedia.*

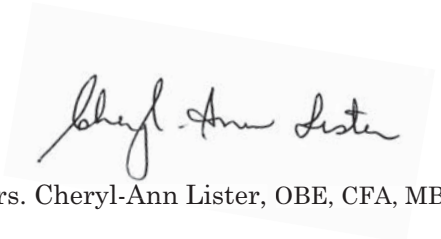
While some of the recommendations contained in the Report can possibly be addressed internally by many of the organizations and entities concerned using available resources, it is apparent to the Committee that some of its recommendations and proposed solutions might well carry a significant price tag, an important factor for policymakers to consider in determining how to deal with the said recommendations.

It would be the Committee's earnest hope that addressing the Report's recommendations on how to move "Towards A More Secure Bermuda" will not be viewed through the prism of cost alone, as important a consideration as that may be, but in the light of what is reasonably and sensibly required to ensure that Bermuda is as secure and safe a society as it can possibly be and preserves its reputation as a quality international financial centre.

Mr. Leopold Nathaniel Mills II, CBE, LL.D, JP, Chairman

National Security and Defence Review Committee

Maj. (Ret'd) George Jones, MBA, LL.B, BA



Mrs. Cheryl-Ann Lister, OBE, CFA, MBA, BSc

Mr. Ralph Richardson, MSc, Cert. CII, Dip.BDA Ins.

Mr. Jonathan Smith, OBE, CPM, BSc, Dip. Crim.

Part Five: References and Annexes

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ANNEXE A:

Mandate of National Security and Defence Review 2013

To make a fundamental review of Bermuda's national security needs, assess the resources required to meet those needs and to make recommendations on the structure and organization required.

1. *Needs:* The review should identify what Bermuda needs to protect in terms of its security and the safety of the public, taking due account of the adoption of current technological advances, and with regard to:
   - Borders — to prevent the unauthorized incursion into Bermuda of people, illegal goods (including specifically, drugs, guns and material which might present a threat to public health); to enforce revenue collection at the border; to prevent illegal importation of goods/material which would breach international conventions; to consider the implications of a commitment by Bermuda to enforce protection of its Exclusive Economic Zone (EEZ) either for conservation or exploitation of its fisheries and mineral resources (including what would be needed if the Government undertook commitments toward the conservation of its area of the Sargasso Sea or toward a marine reserve in its EEZ);
   - Aspects of the maintenance of law and order where the responsibilities of the Bermuda Police Service touch on or come close to the responsibilities of other organizations such as HM Customs and the Bermuda Regiment, with particular reference to protection against threats of armed violence from external sources (and including legacy issues such as unexploded ordnance), management of public disorder and to enforcement of the law on the water;
   - Protection from natural hazards, risks of transport accidents on land, sea (including search and rescue) and in the air and from other risks such as accidents involving crowds and the efficient delivery of recovery efforts (including the potential to deliver help after natural disasters in other Overseas Territories);
   - Protection of Key Points; and
   - The Government's intention to end conscription.
2. *Required resources:* The review should identify resources required to meet these security and safety needs. It should take account of current financial constraints and provide costing where possible in respect of its recommendations.
3. *Organization:* The review should consider the most effective and efficient way to deliver the security and safety services for which a need has been identified, which organizations should deliver these services and how cooperation between the relevant service providers might be achieved.

ANNEXE B:

National Security and Defence Review Committee and Secretariat

Chairman
Leopold N Mills II, CBE, LL.D, JP

Mr. Leopold N Mills II is a recently retired lawyer with an extensive background in the private and public sectors. He is a former employee of the Bermuda Broadcasting Company and a former manager of Radio Station ZBVI in Tortola, British Virgin Islands.

Mr. Mills holds an LL.B (Hons) from the University of Buckingham in the UK and was awarded an honorary LL.D from the same university in 2003. He is a current Member of the International Bar Association and a past Member of the Bermuda Bar Association. He was called to the Bar of England and Wales (Middle Temple) in November 1988 and called to the Bermuda Bar in December 1988. He became a Justice of the Peace in January 1992 and a Notary Public in 1994.

Mr. Mills's former public service includes public relations, law and executive leadership in the Bermuda Government civil service. He is a former Director of Public Relations, former Legislative Assistant for the Attorney General's Chambers and the Cabinet Office, former Assistant Cabinet Secretary, former Secretary to the Cabinet and former Head of the Civil Service. During his tenure as Secretary to the Cabinet and Head of the Civil Service, Mr. Mills assisted the office of the Premier with the International Business Forum (IBF), served as Secretary to the Governor's Council, served on and co-chaired the EMO and was appointed Acting Deputy Governor on several occasions.

Following his retirement from public service in 2000, Mr. Mills joined Trott & Duncan, Barristers and Attorneys, where he served for eight years as Associate Counsel. He spent the last four years prior to his retirement as Legal Aid Counsel in the Bermuda Government Legal Aid Office.

Mr. Mills was awarded the CBE in 2001 by Her Majesty, Queen Elizabeth II for his public service to Bermuda.

Deputy Chairperson
Louise A Jackson, OBE, BSc. (deceased)

Mrs. Louise Jackson was a former Member of Parliament and Shadow Minister for Health and Seniors. She held a BSc. in Health, Physical Education and Safety from Howard University, Washington, DC, USA. She also studied at Columbia University, New York, USA and the Royal Academy of Dancing, London, UK .

Mrs. Jackson formerly served as the Director of Recreation at the National Training

School for Girls in Washington, DC and was a Health and Physical Education teacher at The Berkeley Institute. She also was the founder of the renowned Jackson School of Dance (later named the Jackson School of Performing Arts).

Mrs. Jackson dedicated many years to public service in Bermuda. She was a former Chairperson of the Broadcast Commission, the Library Committee and the National Gallery. She also served on the Bermuda Housing Trust. Her community service extended to the Bermuda Arts Council where she served as Deputy Chair, to the Hamilton Rotary Club, the Bermuda Festival Committee, the Centre for the Performing Arts, the Bermuda Business and Professional Women's Association and Delta Sigma Theta Sorority — Bermuda Alumnae Chapter. She also was the founder of the National Dance Theatre, a trustee of the Bermuda High School for Girls and a former Director of the Bank of Bermuda Ltd.

Author of two books on the Bermuda Gombey, Mrs. Jackson was awarded an MBE by Her Majesty Queen Elizabeth II in 1979 for her contribution to the arts.

Following her retirement from politics in December 2012, Mrs. Jackson remained active in public life. She served as consultant to the Ministry of Health and devoted her efforts and energies towards advocating for the fair and equitable treatment of Bermuda's seniors. She also served on the Bermuda Hospitals Board, the Bermuda Health Council and the Seniors Advisory Council. She served as Deputy Chairman of the National Security and Defence Review Committee and worked tirelessly with this undertaking until her unexpected illness in December 2013 and untimely death in January 2014.

In the New Year's Honours of 2014, Mrs. Jackson was awarded an OBE by Her Majesty Queen Elizabeth II for her public service and service to seniors.

Committee Members

Major (Ret'd) George N H Jones, MBA, LL.B, BA

Major (Ret'd) George N H Jones holds a BA in International Relations from Bucknell University, US, an MBA in Entrepreneurship from the F.W. Olin Graduate School of Business at Babson College, US and an LL.B from the University of Buckingham, UK. Formerly employed by the Bank of NT Butterfield & Son Limited, Butterfield Asset Management Limited and Promisant Limited and more recently as an Associate with Appleby (Bermuda) Limited and Appleby (Mauritius) Limited, Major Jones is currently employed as Group General Counsel and Company Secretary for Argus Group Holdings Limited and the Argus Group in Bermuda, Gibraltar and Malta.

Major Jones has extensive military experience, having retired as Battalion Second-in-Command of the Bermuda Regiment in June 2011 after 20 years of service as a volunteer. During his tenure in the Bermuda Regiment, he commanded A Company, C Company

and had three tours as Officer Commanding — Support Company. The latter included operational responsibility for the Regiment's Boats, Signals, Motor Transport, Guns and Assault Pioneers, Regimental Police and Medics.

Major Jones was attached to the East of England Regiment, an all-volunteer Territorial Army infantry unit in the United Kingdom from 2002 to 2005 as Officer Commanding C Company with operational and volunteer recruitment responsibility for Leicestershire, Northamptonshire and Rutland. C Company included, amongst other specialist units, the East of England Regiment's Assault Pioneers.

In 2008, Major Jones commanded the Bermuda Regiment's hurricane relief efforts in the Turks and Caicos Islands. He was also a member of the United Nations Disaster Coordination and Assessment Team for the Latin American and Caribbean Region, having trained in Panama and Chile.

Cheryl-Ann E Lister, OBE, CFA, MBA, BSc.

Mrs. Cheryl-Ann E Lister is a Chartered Financial Analyst. She holds a BSc. (Hons) in Probability and Statistics from Queen's University, Kingston, Ontario, Canada and an MBA (Finance) from the University of Toronto, Ontario, Canada.

In January 1999, Mrs. Lister was appointed by the Minister of Finance to serve as the Chairperson of the Bermuda Monetary Authority (BMA) where she served until December 2007. In 2008, Mrs. Lister was appointed Chairperson of the National Anti-Money Laundering Committee (NAMLC) which plays a key role in the development and implementation of Bermuda's regime to combat money laundering and the financing of terrorism and proliferation.

In her capacity as the NAMLC Chairperson, Mrs. Lister is a consultant to the Attorney-General and Minister of Legal Affairs on matters relating to Bermuda's Anti-Money Laundering and Anti-Terrorism plan. Mrs. Lister also is the prime non-ministerial contact for Bermuda in the Caribbean Financial Action Task Force (CFATF) and the Financial Action Task Force (FATF). She currently is the Co-Chairperson of the CFATF Working Group on FATF initiatives and represents Bermuda and the other Overseas Territories on the CFATF's Steering Group.

Mrs. Lister was awarded an OBE by Her Majesty Queen Elizabeth II in January 2009 for her services in promoting sound financial regulation in Bermuda,

Ralph Richardson, MSc., Cert. CII, Dip. BDA Ins.

Mr. Ralph Richardson is one of Bermuda's premier authorities on maritime related issues, an accomplished ocean navigator and author of *The Bermuda Boater*. He holds an MSc. in International Management from the University of Liverpool, UK.

Mr. Richardson is the former Executive Director of the ACE Foundation and Executive Director of the Bermuda Underwater Exploration Institute. He also has had an extensive and varied career as Lieutenant with the Hamilton Fire Brigade, as Operations Manager and Chief Pilot for the Submarine Enterprise, as a Marine Pilot for the Bermuda Government and has served in various capacities in Bermuda's insurance industry.

Mr. Richardson currently serves on various Boards including the Bermuda Water Safety Council (Chairperson), the Bermuda Fire Service Board, the Bermuda Institute for Ocean Sciences (BIOS), Charted Insurance Institute and Overseers Sea Education Association, Woods Hole Massachusetts, USA. He is a Past Commodore of the Royal Bermuda Yacht Club, former Chairperson of the Bermuda Ports Authority, former Co-chairperson for the Bermuda Government Workforce Development Committee, former Member of the Marine Resources Committee, former Chairperson of the National Training Board Marine Occupations Advisory Committee, former Vice President of the Bermuda Zoological Society and former Executive Member of the Bermuda Sloop Foundation.

Jonathan D Smith, OBE, CPM, BSc., Dip. Crim.

Mr. Jonathan D Smith holds a BSc. in Management Studies from the University of Maryland, US and a Diploma in Criminology and Police Studies from the University of Cambridge, UK. He was Bermuda's Commissioner of Police from 2000 to 2005 and served as Senator and Junior Minister of National Security (2011–2012).

Mr. Smith has an extensive security background, having worked closely with the US Drug Enforcement Agency, Central Intelligence Agency, Federal Bureau of Investigation and various national, federal, state and municipal agencies in the UK, USA, Canada and the Caribbean. He is a former Vice President of the Association of Caribbean Commissioners of Police, former Co-chairperson of the White Collar Crime Investigative Team formerly based in Miami and former Chairperson of the Firearms Working Group for the UK Overseas Territories.

Trained at the highest levels in Canada and the UK, Mr. Smith wrote the first operational Policing Strategy for the BPS which realigned the Service, established a community policing ethos and created the BPS Intelligence Division. During his tenure as Commissioner, Mr. Smith was responsible for the formation of the first permanent Police Support Units and secured new funding for an Emergency Response Team (ERT) and Firearms Officers at the onset of crime associated with gang activity in Bermuda. Mr. Smith authorized the first overseas deployment of armed BPS ERT Officers to assist the Cayman Islands in 2004 in the aftermath of Hurricane Ivan.

Mr. Smith has authored one book based on WW II, is Executive Producer for an award-winning film and is currently employed in the private sector managing companies in the off-site document management business, property management and property development.

Committee Headquarters and Secretariat Support

The National Security and Defence Review Committee commenced preliminary deliberations in May 2013 and became fully functional in July 2013 when the Committee's Secretariat was established under the leadership of Ms. Marva O'Brien, then Permanent Secretary, the Cabinet Office. The Secretariat was based in the Lightbourne & Simmons Building, 61 Victoria Street, Hamilton where presentations before the Committee and other meetings took place.

Between August and September 2013, the Secretariat secured the professional services of Dr. Eugenie Simmons, Corporate Services Division Manager, General Post Office, as Policy Analyst; Major Simeon Prowse, seconded from the UK Ministry of Defence; and Mr. Robert Horton, recently retired Permanent Secretary, Ministry of Government Estates and Information Services, and former Permanent Secretary, Ministry of Labour, Home Affairs and Public Safety.

ANNEXE C:

Bermuda Country Profile Analysis (PESTLE Analysis)

For the purposes of the Report, Bermuda was profiled using the PESTLE (Political, Economic, Sociological, Technological, Legal and Environmental) analysis technique.[29] This audit examined Bermuda's infrastructure and its resident population in order to assist in understanding its ability to deal with a range of national crises. The PESTLE analysis served to identify the range of threats to be considered and the potential impact on the Island. The PESTLE analysis also assisted in the identification of key stakeholders with whom consultation was required during the review process. Key points from the evaluation are summarized below to assist with contextualizing the issues referred to in this Report.

A PESTLE analysis is an audit of an entity's profile to assess its capabilities for response in the face of potential crises or major changes, taking into consideration the macro and meso circumstances that impact the entity. In the context of Bermuda, macro circumstances can include size, climate, geographical location, political dependency, global economic circumstances etc. that potentially impact the security or well-being of the population, but over which there is no degree of control. Meso circumstances can include the country's internal social, political, legal and economic framework and other decision-making processes over which there is some degree of control. By understanding both the macro factors (what we cannot control) and meso factors (what we can control), it is possible to provide an analytical framework to contextualize issues raised with respect to Bermuda's security and defence and to identify ways whereby opportunities might be maximized and threats mitigated.

Consideration of the factors contained in the PESTLE analysis is essential when a risk identification and mitigation strategy is under development, as a failure to apply possible solutions without this vital context greatly reduces the possibility of maximizing opportunities and minimizing threats. It must also be recognized that there are some circumstances that make an impact over which there is some degree of control and some circumstances which make an impact, but which cannot be controlled.

Political Overview

The PESTLE political analysis for Bermuda includes an explanation of the country's Overseas Territory dependency status, Constitution, political framework, international associations and international relations. It also includes an overview of its internal security and national defence mechanisms.

[29]What is PESTLE analysis? [online]: http://home.kku.ac.th/petmas/What%20is%20a%20PEST%20analysis.pdf

Bermuda is a highly autonomous self-governing UK Overseas Territory with a politically stable infrastructure. There are two political parties currently. Since enactment of its Constitution (Bermuda Constitution Order 1968), General Elections have been held on a routine basis with no requirement of any intervention by external parties.

The UK is responsible for Bermuda's internal security and national defence. Bermuda is not involved in any international or jurisdictional disputes. Public disorder on the scale of widespread rioting has been rare, with the last riot occurring in 1977. Subsequent political and social reforms, the increasing prominence of pressure groups and a transparent election process have contributed to Bermuda's political stability.

Bermuda maintains a battalion of approximately 380 paid part-time local conscripts and volunteers and full-time staff. The role of the Bermuda Regiment is primarily for maintaining civil order during public uprisings and provision of support during critical incidents and natural disasters. The Regiment also performs a ceremonial role during national events, including the Convening of the Legislature and major parades.

The Government has announced its intention to end conscription. At the time of writing, the Defence Act 1965 remains intact and conscription is still used to maintain the Regiment's strength. However, consideration will have to be given to the structure and responsibilities of a post-conscription military presence on the Island.

Economic Overview

The PESTLE economic analysis for Bermuda includes an overview of its GDP, currency and economic conditions, revenue sources, aspects of its internal and external trade and its transport infrastructure.

Despite four years of recession and a public debt of $1.4 billion, Bermuda enjoys the fourth highest per capita income in the world, about 70% higher than that of the US. However, Bermuda has no major manufacturing or exports and its economy is primarily based on international business and the provision of financial services to that sector and, to a lesser extent, tourism, two industries that are sensitive to internal and external factors that impact Bermuda's reputation as an economically stable and safe jurisdiction.

A number of reinsurance companies were formed in Bermuda following the 11 September 2001 terrorist attacks on the US and again after Hurricanes Katrina, Rita, and Wilma in 2005, contributing to the expansion of an already robust international business sector.

Bermuda's tourism industry, which derives over 80% of its visitors from the US, continues to struggle and has dropped in its relevant importance to the economy. However, it remains critically important as a job creator.

Bermuda's Aircraft Registry and Merchant Shipping Registry also provide significant sources of revenue for the Island.

Bermuda must import almost all consumables and equipment. Its industrial sector is very

small and agriculture is limited due to the small size of the Island. A 2010 report suggested that were Bermuda to rely on local arable land to provide food for the population, the available land could support only 10,000 people, approximately 15% of the population, at any given point in time.[30]

Bermuda's transport infrastructure is generally sound, providing good access to and throughout the Island. There is one airport for passenger and cargo flights and three main sea ports: Hamilton which services smaller cruise ships and container ships which offload goods at the Hamilton Dock; St. George's which primarily services yachts, other private sailing vessels, smaller cruise ships and accommodates bulk vessels delivering aggregate for asphalt production; and Heritage Wharf, Dockyard which can accommodate mega cruise ships.

There are approximately 447 kilometres (278 miles) of paved roads in Bermuda — 225 kilometres (140 miles) of public roads and 222 kilometres (138 miles) of private roads. The land mass is composed of a system of smaller islands that are joined by bridges. There is the potential for disruption to smooth passage to all areas of the Island if these bridges become damaged or impassable for any reason. The most strategically important bridge is the 800 metres (approximately 875 yards) long Causeway which provides the only link between St. David's, St. George's (where the airport is located) and the mainland.

Sociological Overview

The PESTLE sociological analysis for Bermuda includes an overview of the demographic makeup of the Island, population statistics, education and health profile for the country.

The people of Bermuda are referred to as Bermudians. At the last census conducted in 2010, the population was 54% black, 31% white, 8% mixed, 4% Asian and 1% unspecified.[31] The official language is English. There are significant Portuguese, Philippine and other Asian populations in Bermuda.

Bermuda has an ageing population. The median age of Bermuda's resident population of 64,237 (Department of Statistics 2010) is 41 years. The population, growing at a rate of .4% annually, is classified as 100% urban due to the level of density and degree of development for the Island.

The infant mortality rate in Bermuda is low and the life expectancy for the total population is approximately 80.93 years. Generally, the health of the population is good, with approximately 5% of the population experiencing a heath condition resulting in some form of disability. Of Bermuda's disabled population, 45% experience minor limitations impacting their full range of abilities at home, work or school, 33% are unable to work, 30% are homebound, 21% require assisted care and 7% are confined to wheelchairs (2010 census).

[30]McKittrick, T. A., 2010, "The Role of Agriculture in Bermuda's Future", Report prepared for the Environmental Coalition of Bermuda (ECO Bermuda).

[31]*2011 Digest of Statistics*, Bermuda Government Department of Statistics.

There are numerous religious denominations in Bermuda: Protestant 49%, (Anglican 15.8%, African Methodist Episcopal 9%, Seventh-day Adventist 6.7%, other Protestant 18%), Roman Catholic 15%, other 12%, unspecified 6%, none 18% (2010 census). The churches have on occasion become strong special interest lobby groups in the Island's efforts to address certain areas of social and economic reform.

Bermuda spends approximately 2.6% of its GDP on education. The literacy rate for Bermuda is 98%. Twenty-three per cent of the population have completed technical, vocational or two years of college and 29% have completed four or more years of college or university education (2010 census). Some 54,000 persons in a population of 64,867 have access to the internet.

The national unemployment rate as of the last census was approximately 6% overall, but is believed to be higher currently.

Technological Overview

The PESTLE technological analysis for Bermuda includes its communications and telecommunications network and its sources of energy.

Bermuda's communications network is extensive, with nearly 58,000 telephone landlines in use. There are approximately 88,200 cellular telephones in use on the Island. There are three local non-cable television stations and approximately 13 local radio stations operating. The Island also has extensive cable and satellite subscription services available. There are over 20,000 computers in Bermuda connected to the internet.

Bermuda, with no significant sources of alternative energy, is heavily reliant on imported fossil fuels. The country produces approximately 717 million kWh of energy and consumes approximately 636 million kWh of energy annually. The Island's energy supply is provided by one power company (Belco), but there is increasing use of renewable energy sources in both businesses and homes.

Legal (Constitutional) Overview

The PESTLE legal (constitutional) analysis includes an overview of the legal framework by which Bermuda operates and an overview of its constitutional changes. [32]

Following its enactment, the Bermuda Constitution Order 1968 was amended as follows:

1. 1973 — to establish the current Government Cabinet administrative structure
2. 1979 — to give non-Bermudians who were Commonwealth Citizens the right to vote
3. 1989 — to allow the Governor, with prior approval of the UK Government and upon consultation with the Premier, to delegate in writing to a Government Minister responsibility for national defence, including the armed forces, external affairs, internal security and the police
4. 2001 — to establish single member constituencies for election to the House of

[32]Bermuda Constitution 1968.

Assembly, to amend various outdated provisions and change the titles of the Parliamentary Secretary and Auditor and to establish the office of the Ombudsman

5. 2003 — to establish 36 single member constituencies for election to the House of Assembly
6. 2010 — to establish new electoral constituency boundaries

Bermuda's system is based on English common law and there is universal adult suffrage. The age of majority is 18.

The Head of State is Her Majesty Queen Elizabeth II who is represented in Bermuda by the Governor.

The legislative framework is highly developed. The Island is administered by a bicameral Legislature consisting of the Senate and the House of Assembly. General Elections must be held every five years, but can be called earlier at the discretion of the Premier. Members are elected by popular vote to the House of Assembly and appointed to the Senate.

The Government is headed by a Premier who is an elected Member of the House of Assembly and a Cabinet which is nominated by the Premier and appointed by the Governor.

The Court system consists of the Magistrates' Court, the Supreme Court, the Court of Appeal and the Judicial Committee of the Privy Council in the United Kingdom (UK).

Environmental Overview

The PESTLE environmental analysis for Bermuda includes an overview of the Island's geographical coordinates, geography, climate, natural resources, physical hazards and surrounding waters.

Bermuda is a geographically isolated island located 32 degrees 15' (minutes) North and 64 degrees 51' (minutes) West. It has a land mass of approximately 54 square kilometres [approximately 21 square miles]. The closest land mass to the Island is Cape Hatteras, North Carolina, approximately 1,071 kilometres (665 miles) WNW of the Island.

Bermuda experiences ample rainfall, but has no fresh water lakes or rivers. Water is primarily collected via the rooftops of individual households while alternative sources of fresh water are secured from subterranean water lens through private wells or commercial water retrieval systems. Desalinized water is also available.

Hurricanes are the most prevalent natural hazards experienced in Bermuda where the terrain consists of low hills separated by fertile depressions. The lowest points are the Atlantic Ocean while the highest point on the Island is Town Hill, Smith's with an elevation of 76 metres. Storm surges render the Island's low-lying areas particularly vulnerable during hurricanes. Approximately 85% of the Island is developed; therefore,

the population density is high. The Island's electrical and communication networks are susceptible to high winds and storm conditions.

Bermuda's Territorial Sea includes waters within a 12 nautical mile radius and an Exclusive Economic Zone, prescribed by the United Nations Convention on the Law of the Sea, covering a radius of 200 nautical miles and inclusive of all marine resources, including energy produced by wind and water.

ANNEXE D:

Table of Agencies, Presenters and Submissions

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Aerial Visual Solutions	16-Aug-13	1	Donte Hunt, President	N/A
Bermuda Electric Light Company (Belco)	25-Sep-13	3	Denton Williams, Snr VP and COO Linda Smith, Snr VP Corporate Relations Dennis Pimentel, VP Energy Delivery	1. Belco Major Environmental Emergency Contingency Plan (H) 2. Belco Safety Audit Findings and Recommendations (TSSA) 28 Oct. 2005 (Hard and soft copy also on CD ROM) 3. Belco Substation and transmission mapping
Bermuda Defence Board	2-Oct-13	8	Col Eugene Raynor – Honorary Colonel Lt Col Michael Foster-Brown Lt Col David Gibbons Maj Wendell Hollis Maj Raymond Smith Capt Larry Burchall Rev Betty Furbert-Woolridge Col 'Chip' Waters (US Army)	1. Review of the Bermuda Regiment, Feb. 2006
Bermuda Fire and Rescue Service (BFRS)	2-Oct-13	1	Lloyd Burchall, Chief Fire Officer	1. Review of Bermuda Fire and Rescue Service by the Chief Fire and Rescue Adviser, 20 Jan. 2010 2. Report on Inspection of Bermuda Fire Service, 8–13 Jan. 1989 3. Rescue and Fire Fighting Audit Report, Bermuda Fire and Rescue Services, L.F. Wade International Airport Division 4. Strategy, Organizational Structure and Staffing of the Bermuda Fire and Rescue Service, Jul. 2010 5. Bermuda Fire and Rescue Service: Proposed Macro-Organizational Structure and Competency Matrix
Bermuda Hospitals Board – King Edward VII Memorial Hospital (KEMH)	30-Aug-13	4	Venetta Symonds, CEO Scott Pearman, COO Dr Rosalind Bascombe-Adams, Coordinator of Emergency Response Committee Dr Michal Weitekamp, Chief of Staff	1. Bermuda Hospitals Board – Paper to NSDR, 30 Sept. 2013 2. National Security Review – Bermuda Hospitals Board, 7 Aug. 2013

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Bermuda Police Service	20-Sep-13	1	Michael DeSilva, Commissioner	1. Bermuda Police Service Briefing Note to NSDR Committee, Aug. 2013 2. Briefing Note to the Minister of National Security – Bermuda Police Service Marine Unit, 10 Aug. 2013 3. Bermuda Police Service – Inspection Commissioned by His Excellency Sir Richard Gozney, Governor and Commander-in-Chief and Michael DeSilva, Commissioner of Police 4. Key Performance Indicators 5. E-mail responses to Committee follow-up questions and photographs of Police boats for comparison
Bermuda Prison Officers' Association	2-Oct-13	1	Scott Turner, Vice Chairman	N/A
Bermuda Red Cross	17-Sep-13	2	Anne Spencer-Arscott, Executive Director Diane P Gordon, Disaster Manager	

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Bermuda Regiment	20-Sep-13	2	Lt Col Michael Foster-Brown, Commanding Officer Maj Warren Furbert, Second in Command	1. Powerpoint Brief to the NSDR Committee, 20 Sep. 2013 2. Bermuda Regiment Stategic Review 2012 3. Future Construct and Roles for the Bermuda Regiment, 23 Nov 2011 4. Assumption of Full-time Maritime Security Role by the Bermuda Regiment – Coast Guard Troop, Undated 5. Defence Board – Review of the Bermuda Regiment 2006 6. Commanding Officer's Command Plan, 15 Oct. 2009 7. Commanding Officer's Plan Update, 30 Mar. 2011 8. Commanding Officer's Plan Update, 15 Mar. 2012 9. Internal Review of Bermuda Regiment Roles and Organizations, 2 Jul. 2010 10. Submission to the Bermuda Independence Commission, 24 Mar. 2005 11. Defence White Paper, Security and Safety of the Territories and their People 12. Bermuda Regiment PowerPoint Presentation, undated 13. Commanding Officer's Quarterly Report, 17 Jul. 2012 14. Commanding Officer's Quarterly Report, 11 Jan. 2013 15. Commanding Officer's Quarterly Report 4 Apr. 2013 16. Exercise Joint Venture 12 Post Exercise Report 28 Nov. 2012 17. Exercise Safe Harbour Post Exercise Report (G1–G4 Points) 19 Oct 11. 16. Bermuda Regiment Visit 17–21 Oct. 2012 – AMA 18. Drill Night Consolidation Plan. Ver. 2, Issued 16 Jan. 2012 19. Security and Defence Review Submission by Lt Col (Ret'd) William K White, ED

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Bermuda Telephone Company Ltd.	9-Oct-13	2	Eric Dobson, CEO Chris Wright, Vice President, Networks	N/A
Bermuda Weather Service (BWS)	N/A	Written		1. A Briefing on Coastal Hazards – Dr Mark Guishard – BAS Serco, 18 Apr, 2011 2. Review of Bermuda Weather Service Tour and Recommendations Given to National Security Review Committee on Natural Hazards and Disaster Management – Kimberley Zuill, 30 Oct. 2013 3. Hurricanes – General Information for Bermuda – prepared by the Bermuda Weather Service 4. CARIBE WAVE 11 Tsunami Exercise – BAS Serco, 23 Mar. 2011
BIOS	25-Sep-13	1	Dr Mark Guishard, Director	1. CONFIDENTIAL. Natural Hazards and Responses Paper to the NSDR Committee, 18 Sep. 2013
Broadcasting Commission	25-Sep-13	1	Toni Daniels, Deputy Chair	1. Re–NSDRC Questions for Broadcast Commission
Chamber of Commerce	8-Oct-13	1	Joann McPhee, Executive Director	1. E-mail Submission of EMO feedback points
Department of Airport Operations	24-Sep-13	1	Aaron Adderley, Director	1. Airport Security Manual, 10 Apr. 2013 2. Aircraft Security – International Obligations, 1 May 2003 3. Bermuda National Aviation Security Programme, 1 May 2003.
Department of Child and Family Services	N/A	Written	Alfred Maybury, Director	1. Emergency Shelter Policy and Procedure Manual, 3 Apr. 2010
Department of Corrections	27-Sep-13	1	Lt Col Edward Lamb, Commissioner	1. Corrections Paper to NSDR Committee
Department of E-Commerce	26-Jul-13	Written	Nancy Volesky, Director	1. National Security Review Committee Submission – E-Commerce
Department of Health	24-Sep-13	2	Dr David Kendell, Acting Director Gaynell Hayward-Caesar, Chief Nursing Officer	N/A
Department of Immigration	2-Oct-13	1	Dr Danette Ming, Chief Immigration Officer	1. Brief to NSDR, 29 Jul. 2013 2. Bermuda Immigration and Protection Act 1956

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Department of Parks	11-Oct-13	1	Lisa Johnston, Director	1. Department of Parks Emergency Measures Standing Instructions 2013
Department of Sustainable Development	11-Oct-13	2	Charles Brown, Director Lynniece Nisbett-Garnett, Sustainable Development Officer	1. Sustainable Development Consultation Paper 2. Sustainable Development Consultation Document 3. Bermuda's Exclusive Economic Zone and its Future Public Consultation – Stakeholder Questions
Department of Transportation	4-Oct-13	2	Francis Richardson, Permanent Secretary Jasmin Smith, Director	1. Bermuda Maritime Operations Centre – Department of Marine and Ports, Ministry of Tourism Development and Transport. Briefing Paper to the NSDR 2. Transport Control Department Business Plan 2013/2014 3. Transport Control Department – Emergency Transport Measures Plan, 4 Oct. 2013 TCD Business Plan 2013/2014
Department of Civil Aviation	18-Oct-13	2	Capt Peter Adhemar, Head of Operations Chris Pearce, Operations Officer	N/A
Department of Communication and Information (DCI)	4-Oct-13	1	Jacqueline Aubrey, Acting Director	N/A
Department of Maritime Administration	18-Oct-13	1	Capt Gamaralage Nawaratne, Chief Marine Surveyor	N/A
Ministry of Environment and Planning	N/A	Written		1. Fisheries Paper detailing boat capabilities and requirements

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Financial Intelligence Unit	25-Oct-13	2	Sinclair White, Director Henry Komanski, Head of Financial Analysis	1. Signed Memoranda of Understanding – consolidated list as at October 2013 2. Select Financial Intelligence Agency Case Studies – 1st Quarter 2013 3. Select Financial Intelligence Agency Case Studies – 2nd Quarter 2013 4. Financial Intelligence Agency Bermuda Annual Report 2010–2011 5. Financial Intelligence Agency Bermuda Annual Report 2011–2012
Financial Crime Unit	25-Oct-13	3	Junior Watts, Chief Inspector Stephen Jackman, Detective Constable Ian Tomkins, Inspector	N/A
Fishermen's Association of Bermuda	1-Oct-13	4	Alan Card Danny Fox Norbert Simmons Mario Stirling	1. CONFIDENTIAL. Bermuda Fisheries Association submission to SD Department, Oct 2013 2. E-mail from Craig Trott entitled High Seas Security, 16 Oct. 2013
Former CO, Bermuda Regiment	9-Oct-13	1	Lt Col Brian Gonsalves	Bermuda's Future Security Needs – Paper to NSDR Committee.
Former CO, Bermuda Regiment	13-Oct-13	1	Lt Col Edward Lamb	N/A
Former CO, Bermuda Regiment	18-Oct-13	1	Lt Col Michael Darling	N/A
Former CO, Bermuda Regiment	N/A	Written	Lt Col William K White	Submission by Lt Col William K White
Former CO, Bermuda Regiment	4-Oct-13	3	Lt Col Eugene Raynor Maj Alvin Daniels Maj Raymond Smith	N/A
Former Coordinator of Security Services	18-Oct-13		Martin Law	N/A

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Former Coordinator of Security Services	18-Oct-13	1	Maj Wayne Smith	1. National Security Plan Bermuda, 14 Jul. 2008 2. National Security Plan Summary Threat Analysis, 2008 – 2018 3. Ministerial Statement for the National Service Plan, 29 Jan. 2010 4. Consultation on the Development of a National Service Programme, 15 May 2008
Former Chief Fire Officer	3-Oct-13	1	Vincent Hollinsid	N/A
Former Commandant, Bermuda Reserve Police	18-Oct-13	1	Eugene Vickers	N/A
Bermuda Regiment	18-Oct-13	1	Charles Jeffers, former member	N/A
HM Customs	27-Oct-13	1	Lucinda Pearman, Collector	
Department of Marine and Ports Services	20-Oct-13	1	Scott Simmons, Director	See Department of Transportation
Marine Reserve Lobby Group (aka Blue Halo or PEW Charitable Group)	6-Sept-13	1	Chris Flook	Blue Halo Discussion Papers (hard copy only). 1. Bermuda's Legacy 2. The Protection and Management of the Sargasso Sea 3. Cultural Implications of a Marine Reserve – An Assessment 4. Scientific, Economic, and Cultural Assessments: Bermuda Blue Halo Marine Reserve 5. The Economic Impact of the Bermuda Blue Halo – An Exploratory Assessment. 6. Bermuda's Marine Conservation Timeline
Ministry of Tourism Development and Transport	4-Oct-13	1	Jasmin Smith, former Assistant Director	Department of Tourism Disaster Management Plan 2011
Office of Occupational Safety and Health	6-Oct-13	2	Doris Foley, Senior Safety and Health Officer Yuri Lightbourne, Relief Safety and Health Officer	1. Department of Health, Occupational Safety and Health presentation to NSDR 2013

Agency	Meeting date	No. of Presenters	Presenters	Catalogue of Written Submissions (submissions received as hardcopy only are indicated as H) All Submissions are classified
Department of Public Works	27-Sep-13	4	Peter M Havlicek, Chief Engineer Kirk Outerbridge, Plant Manger, Tynes Bay Waste-to-Energy Facility Tarik Christopher, Principal Civil Engineer Curtis Charles, Highways Engineer	1. Public Works Block Storage Assessment and Ship Charter 2. Recommendations for Water Security (American Water Works Association (AWWA) 3. Emergency Measures Hurricanes and Storms – Ministry of Public Works Internal Operations Orders. Revised 30 Aug. 13
Regulatory Authority of Bermuda	9-Oct-13	1	Kent Stewart, Chairman	N/A
Seniors Advisory Council	1-Oct-13	4	Claudette Fleming, Chair Joanne Tucker, Board Member Valerie Pethen, Board Member Sarah D'Alessio, Policy Analyst, Ministry of Health	1. CONFIDENTIAL – DRAFT Ageing Well in Bermuda v.1.3, 24 Sept. 2013. From Seniors Advisory Council, Ministry of Health and Seniors 2. The Paratransit Initiative – Strategic Plan 2009
St. John Ambulance	20-Sep-13	3	Stephen Gunn, Commissioner Gareath Adderley, Assistant Commissioner Veronica DeSilva, Member	1. St. John Ambulance Disaster Plan 2. St. John Ambulance Presentation 3. St. John Ambulance Risk Assessment
TeleBermuda International	9-Oct-13	2	Gregory Swan, CEO Karen Carlington, Director Residential Services	N/A
Department of Telecommunications	15-Oct-13	1	William G Francis, Assistant Cabinet Secretary	1. Presidential Policy Directive – Critical Infrastructure Security and Resilience, 12 Feb. 2013 (hard copy) 2. Executive Order–Improving Critical Infrastructure Cybersecurity, 12 Feb. 2013 (hard copy) 3. National Association of Regulatory Utility Commissioners – Cybersecurity for State Regulators with Sample Questions for Regulators to ask Utilities, Feb. 2013 (hard copy)
US Consulate	13-Sep-13	1	Mark Settje, US Consul General	N/A
WRITTEN SUBMISSIONS				
Samuel Brangman	1-Oct-13			E-mail – Security Review – Post Office Mail Processing Security
Lisa Jacobs	1-Oct-13			E-mail – Inquiry – Facilities Management and Security
Ted Gauntlett	1-Oct-13			E-mail – Bermuda Regiment – Bermuda Youth Corps

Steve Thompson	30-Sep-13			E-mail – Submission – Conscription
WRITTEN SUBMISSIONS				
Larry Marshall	29-Sep-13			E-mail – Reformed Bermuda Regiment (Part-time) (BAD)
Diana Williams	27-Sep-13			E-mail – Interested in Security for Bermuda
John Faiella	22-Sep-13			E-mail – Proposal – Concept of Regiment re-structuring
Margaret Lloyd	16-Sep-13			E-mail – Request for ideas on Regiment's Future
Michael Brayman	10-Sep-13			Telephone submission – Former Regiment Member
Charles Jeffers	10-Sep-13			Telephone request – Bermuda Regiment
Jarion Richardson	6-Sep-13			E-mail – Untitled – Request to make a submission
Roderick Moore	6-Sep-13			E-mail – Bermuda Regiment – 2 Ex Surgeon Major of Regt
Jonathan Starling	5-Sep-13			Email – Public Consultation on Reviewing Security
David Dumont	5-Sep-13			Letter BDA Regiment 2014 and Beyond, 5 Sep. 2013
SITE VISITS	**DATE**		**CONTACT PERSON**	
Department of Corrections – Westgate Correctional Facility	24-Sep-13		Shaun Bailey, Principal Officer	
Department of Corrections – Coed Facility	24-Sep-13		Shaun Bailey, Principal Officer	
LF Wade International Airport	3-Oct-13		Lisa Rawlins, Aviation Security Manager	
Department of Marine and Ports Services (Search and Rescue)	14-Oct-13		Scott Simmons, Director Francis Richardson, Permanent Secretary	
Bermuda Electric Light Company [Belco] Power Plant	15-Oct-13		Denton Williams, COO	
Tynes Bay Waste-to-Energy Facility and Prospect water catchment	15-Oct-13		Kirk Outerbridge, Plant Manager	

Department of Corrections – Farm Facility	17-Oct-13		Shaun Bailey, Principal Officer	
SITE VISITS	**DATE**		**CONTACT PERSON**	
Bermuda Police Service [EMO and Police COMOPS]	24-Oct-13			
Bermuda Weather Service	29-Oct-13		Kimberley Zuill, Director	

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