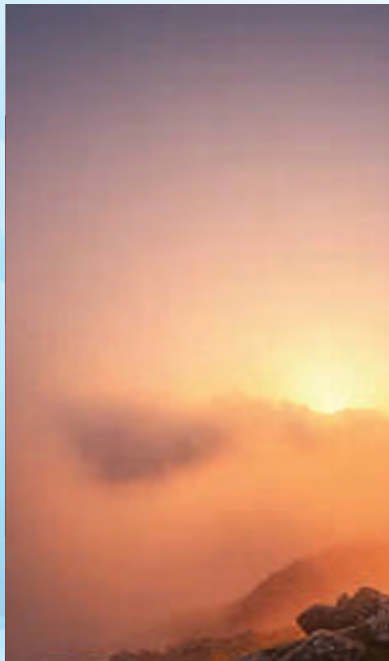
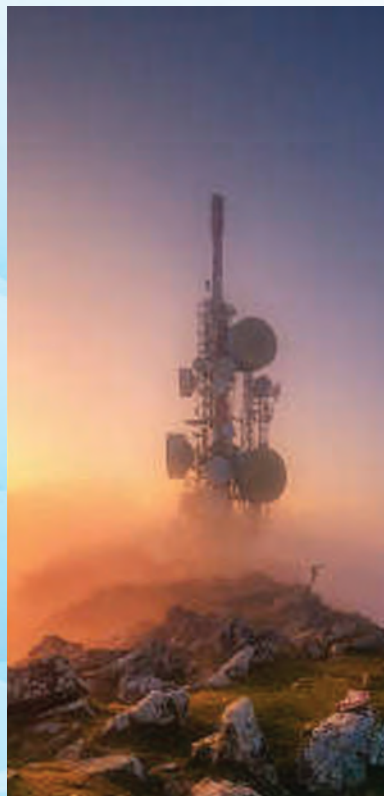




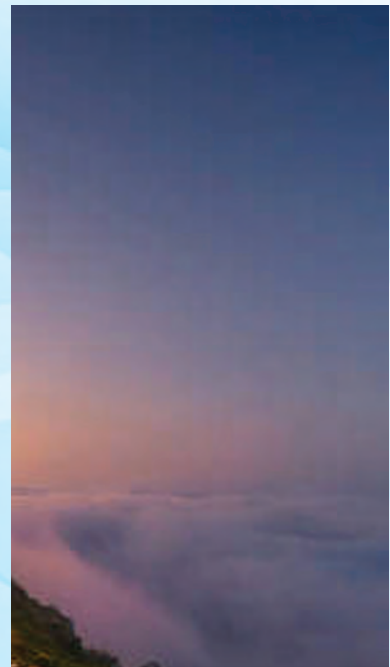
ANNUAL



REPORT



2019-2020



MISSION STATEMENT

To ensure the efficient management of Jamaica's radio frequency spectrum in keeping with international best practices and in the interest of social, economic and technological development.

VISION STATEMENT

To create the environment for the radio frequency spectrum to become the preferred medium of communication.

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CORPORATE INFORMATION

Registered Office	Auditors
Spectrum Management Authority 13 - 19 Harbour Street Kingston	KPMG 6 Duke Street Kingston
Bankers	Company Secretary
<ul style="list-style-type: none">• First Global Bank Ltd. 28 Barbados Avenue, Kingston 5• National Commercial Bank Ja. Ltd. 1-7 Knutsford Boulevard Kingston 5	Mrs. Pamela Goulbourne Spectrum Management Authority 13-19 Harbour Street Kingston

ACRONYMS

5G	Fifth Generation
AOA	Angle of Arrival
AP	Assembly of Parties
BoD	Board of Directors
CITEL	Inter-American Telecommunications Commission
CTU	Caribbean Telecommunications Union
FY	Fiscal Year
GMDSS	Global Maritime Distress and Safety System (Certificate of Competence in Radio Telephony)
GOJ	Government of Jamaica
ICT	Information and Communications Technology
ITSO	International Telecommunications Satellite Organisation
IAC	ITSO Advisory Committee
IoT	Internet of Things
ITU	International Telecommunications Union
JARA	Jamaica Amateur Radio Association
KPI	Key Performance Indicator
LTE	Long Term Evolution
MOF	Ministry of Finance and the Public Service
MSET	Ministry of Science, Energy and Technology
RF	Radio Frequency
RMDFS	Radio Monitoring and Direction Finding System
SMA	Spectrum Management Authority
TDOA	Time Difference of Arrival
The Authority	Spectrum Management Authority
UN	United Nations
USTTI	United States Telecommunications Training Institute
VSAT	Very Small Aperture Terminals
WRC	World Radiocommunication Conference
WTO	World Trade Organization



Corporate Profile

The Spectrum Management Authority ('SMA or the Authority') is mandated by virtue of the Telecommunications Act, 2000 as the regulatory body charged with the management of the Radio Frequency Spectrum in Jamaica, on behalf of the Government and people of Jamaica.

Consistent with its Mission Statement detailed herein, SMA's management of the spectrum entails the following:

- Managing access to the radio frequency spectrum through band planning, frequency assignment and licensing;
- Monitoring compliance with licensing agreements to protect all authorized spectrum users;
- Identifying, investigating and facilitating the resolution of cases of interference;
- Identifying and eliminating unauthorized and illegal use of the spectrum;
- Fulfilling Jamaica's international obligations with respect to spectrum management;
- Fulfilling its statutory obligation as the advisory body to the Minister with portfolio responsibility for telecommunications, currently the **Minister of Science, Energy and Technology**, on spectrum policy and related legal and regulatory matters.

The Spectrum Management Authority, in accordance with The Companies Act, 1965 was incorporated as a limited liability company on 2000 February 1 and became operational in 2001 April. Since 2009 December 21, the registered office of the company is 13 - 19 Harbour Street, Kingston, Jamaica.

The statutory obligations and the operational principles of the Authority are in accordance with, and fulfil Jamaica's international commitments to the World Trade Organization's (WTO) telecommunication agreement, and the policy objectives enunciated by the Government of Jamaica (GOJ) with respect to the liberalization of the telecommunications sector.

The Authority is financed through a cost-recovery mechanism, whereby licensed spectrum users are required to pay Spectrum Regulatory fees. The fee mechanism was originally established in 2003 and amended in 2017 pursuant to the **Telecommunications (Spectrum Regulatory Fees) (Amendment) Regulations, 2017**, Jamaica Gazette Supplement No. 16. The SMA also collects Spectrum Licence fees that are remitted to the GOJ's Consolidated Fund by way of Tax Administration Jamaica since April 2017, following a reclassification of Spectrum Licence fees as a tax revenue.

As aforesated in carrying out its mandate, the Authority operates within the legislative framework as established by the **Telecommunications Act, 2000** and the **Radio and Telegraph Control Act, 1973**. Internationally, SMA is also guided by the rules and regulations of the International Telecommunications Union (ITU). ITU is the leading United Nations agency for information and communication technologies. As the global focal point for governments and the private sector, ITU's role in helping the world to communicate spans three (3) core sectors: radiocommunication; standardization; and development.

There are various categories of radio systems that are licensed by the Authority, namely:

- Terrestrial (land-based) radio systems - including fixed services (such as networks providing data transfer services) and mobile services (such as cellular services as well as 2-way radios);
- Satellite systems - for large earth stations and VSATs (very small aperture terminals);
- Maritime radio systems - this facilitates radio communication for ships, yachts, and boats; and,
- Aeronautical radio systems - which facilitates communication by airplanes and air-traffic controllers.

The Authority also acts in a certifying capacity in respect of the following licences:

- *Certificate of Competence in Radio Telephony/Global Maritime Distress and Safety System (GMDSS)* – This certification authorizes the holder to carry out the radiotelephone service of any Ship Station;
- *Amateur Radio License (Ham Radio)* – This is a license that allows the use of radio frequency spectrum for purposes of non-commercial exchange of messages by the users;
- *Radio Technician Licence* – There are two (2) classes for this category of licence: “Class A” and “Class B” Licences. A licence issued under “Class A” category authorizes the Licensee to install and maintain radio transmitting apparatus; and, the “Class B” category authorizes the Licensee to install and maintain radio transmitting apparatus with a radio frequency power not exceeding 1,000 watts; and,
- *Type Approval Certificate* – This certification is issued to manufacturers of radio communication equipment after the Authority ensures that it conforms to appropriate standards and principles of product safety and will not interfere with other equipment or networks.

The SMA represents Jamaica in several telecommunications related international fora and participates at the Committee level on selected bodies as indicated:

- International Telecommunications Satellite Organization (ITSO) - the Authority has been a member since 2001 representing the Caribbean region;
- Caribbean Telecommunications Union (CTU);
- The Inter-American Telecommunication Commission (CITEL); and,
- The International Telecommunication Union (ITU).



Honourable Fayval Williams, MP
Minister of Science, Energy and Technology

The 2019/2020 Annual Report of the Spectrum Management Authority demonstrates a solid period of performance and profitability by the Authority.

The Authority exceeded its key performance indicators (KPIs) in relation to licensing activities (new and renewal), interference and financial management. In terms of new and renewed licenses, the Authority processed 98% of new applications within the specified time and had a renewal rate of over 91%. The Authority also resolved over 90% of its issues of interference by the end of the financial year.

MESSAGE FROM THE HONOURABLE MINISTER

The Company's financials indicate a solid performance for the period under review. For the period ending March 31, 2020, the SMA made a total income of over \$488 million, surpassing the \$407.56 million target. The SMA's expenditure was also in keeping with targets and projections.

Additionally, there was an increase in the revenue collected on behalf of the Government of Jamaica for Spectrum Licence fees. At the end of the fiscal year, actual collection of Spectrum Licence fees (excluding interest & FX changes) amounted to \$1,618.39 million. This was above the budgeted amount of \$1,348.78 million.

I am pleased that the SMA has implemented an e-commerce platform system to facilitate the payment of licenses and fees for Amateur Services, Citizen Band Radio Services, and Type Approval Certification via its website.

The SMA has done very well over the year and I commend the solid performance.

Hon. Fayval Williams, MP
Minister of Energy, Science and Technology



Mr. Edward Gabbidon

MESSAGE FROM THE **CHAIRMAN**

We have also had pause to consider the unpredictability of the future in the wake of the global dislocation and instability triggered by the COVID-19 pandemic; and the concomitant, meteoric rise in the use of Information and Communications Technologies (ICTs) and the associated costs of staying connected in global crisis.

Given all these changes of the times, the Spectrum Management Authority remains resilient, as we continue to improve our operations and advocate for the updating of legislation to tackle current spectrum policy and regulatory issues.

The Board congratulates the SMA's Management and Staff for another successful year of operations in managing the island's Radio Frequency (RF) spectrum, to ensure the minimum of interference, and to plan, allocate and assign spectrum licences, enforce licensing conditions, and interact with regional and international organizations.

We are committed to regulating the use of radio frequencies to impact every aspect of life in Jamaica, enabling wireless spectrum to connect the unconnected, and to shape a world-class digital future for Jamaica.

In the face of growing demand for spectrum resources by you, our valued clients and stakeholders, the Spectrum Management Authority is carrying out its mandate and functions under a governance framework that requires world-class efficiencies and cost affordability to meet the increasingly sophisticated appetite of Jamaicans for emerging wireless technologies and digital innovations, and importantly, access for the digitally unserved and underserved in our society.

As a Board, empowered under the Public Bodies Management and Accountability Act 2001, to provide oversight of the SMA, we recognise that innovation must be a key driver, if we are to propel Jamaica forward to a highly functional, digital society.

This has guided the direction of the Authority for the period under review, and we are confident that the Management has been adopting globally benchmarked approaches and methodologies to implement spectrum regulation in this new milieu, marked by rapid technological change and the entry of new players into the space with varying business models and requirements.

Mr. Edward Gabbidon
Board Chairman



Dr. Maria Myers-Hamilton, EdD
Managing Director

MESSAGE FROM THE **MANAGING DIRECTOR**

“Spectrum Management has to be in tandem with transforming lives and enhancing our economy. It is imperative that the Spectrum Management Authority (‘The Authority’), empowers stakeholders to understand what this means to them”

Radiocommunication impacts all facets of our lives – it is everywhere. In reality, most sectors of our economy either utilize or are eagerly awaiting the opportunity to effectively utilize Radio Frequency (RF) to further enhance their respective products and services. Therefore, as we reflect on our achievements for the fiscal period 2019/20 – the Authority’s coterie stands proudly as we traversed a number of milestones, having another successful year in many regards, regulating and monitoring this finite resource.

Invariably, our lives are impacted by the use of radiocommunications - mobile phone calls, broadcast television programmes, air travel, online maps, medical equipment (CT Scans, X-Ray, Ultrasound devices) and much more. Radiocommunications moreover play a crucial role in the monitoring and transmitting change with regards to ocean temperature, vegetation patterns, water levels in aquifers and greenhouse gases – helping us predict famines, the path of a hurricane, or how the global climate is changing. In recent

times due to the Pandemic, billions of people, businesses, and devices are connected to the Internet. ICT has transformed each and every aspect of our lives, from the way people interact and communicate to the way companies do business; and at the heart of this transformation is wireless communications.

As we reflect internally, the Authority exceeded all its Key Performance Indicators (KPIs) established surrounding the core operations - licensing (new and renewal), interference management and financial management. Additionally, the Authority executed its inaugural G5 Symposium, bringing local, regional, and international stakeholders together to discuss relevant issues affecting the nation and region. We also continued in our outreach programmes, assisting surrounding communities, empowering and providing opportunities for the youth especially females interested in the ICT sector.

A noteworthy achievement during the 2019/20 fiscal year was the opportunity to have inscribed our mark at the ITU’s World Radio Communication Conference (WRC-19), which was held in Sharm el-Sheikh, Egypt, 28 October to 22 November 2019. WRC-19 is playing a key role in shaping the technical and regulatory framework for the provision of radiocommunication services in all countries, in outerspace, air, at sea and on land. It is anticipated that these negotiations will promote accelerated progress towards meeting the United Nations’ Sustainable Development Goals (SDGs), that Jamaica is party to. The ideology is ingrained in an unyielding foundation that supports a number of emerging technologies that are configured to revolutionize the digital economy, including the use of artificial intelligence, big data, the Internet of Things (IoT) and cloud services. We are happy to

report that the Authority played its role in the attendance of preparations for the WRC-19 that comprised discussions that took place in the International Telecommunications Union – Regulations (ITU-R) - Study Groups, the Conference Preparatory Meeting, the inter-regional workshops. Additionally, we collaborated within the regional groups – Caribbean Telecommunication Union (CTU) and The Inter-American Telecommunications Commission (CITEL). All these events contributed to the endgame by ensuring that consensus is reached with respect to the management of Spectrum globally. The SMA also played its part in the start of ITU’s WRC-23 Planning Sessions – these events will guide the course for the use of Radio Frequency across all nations of the world.

As we look to the future of spectrum management which must be responsive to science, technology, and innovation, it is no secret that the current development of fifth generation of mobile communications technologies, known as 5G, will at some stage be playing a critical role in Jamaica’s economy. 5G is expected to increase performance of many current applications such as virtual reality (VR), smart city and augmented reality (AR) applications, and also bring innovations to industries such as agriculture, manufacturing, and logistics. Mission critical applications such as e-Health (telemedicine, tele-surgery, etc.) will be strengthened due to the low latency ability of the technology.

Arising out of the recently held WRC-19, several frequency bands were allocated for implementation of 5G in the ITU Region 2 of which Jamaica is a part. These bands are essentially high frequency bands such as: 24.25 -27.5 GHz; 37 – 43.5 GHz; 47.2-48.2 GHz and 66 – 71 GHz. These bands were airmarked for 5G technology and are currently not being used by any of our mobile

network operators. Perhaps the time is right for Jamaica to establish national committees to begin looking at local spectrum needs for 5G and the practical ways in which Spectrum may be of benefit to the Jamaican economy.

The Authority remains committed to transforming the lives of all Jamaicans through continuous facilitation of an enabling environment for provision of ICT services. This will greatly benefit consumers as well as further the growth and increased contribution of the ICT sector towards the country’s Gross Domestic Product (GDP).

As we anticipate the likely wireless technologies which may sooner or later come to market, the SMA’s management will ensure that the radio spectrum is kept “clean” and available to be employed by both private and public sector organizations in ways which meet the country’s economic growth and other objectives.

Additionally, the SMA’s technical team will continue to keep abreast with the ITU requirements for spectrum managers and ensure that service frequencies are used in ways which allow the maximum utilization of the resource. Despite the fact that 2020 so far been fought with numerous challenges, there is ample opportunities for socio-economic growth across major sectors facilitated by wireless communications.

The SMA ‘Hidden Figures’ – the team members who are on the frontline and behind the scenes will continue to work assiduously in ensuring the fulfilment of our obligations to our stakeholders and the furtherance of the SMA’s Corporate Goal.



Dr. Maria Myers-Hamilton, EdD
Managing Director

BOARD OF DIRECTORS

Role of the Board of Directors

The Board of Directors (BOD) is committed to the achievement of business success and the enhancement of long-term value for Jamaica with the highest standards of integrity and ethics. In that regard, the BOD has adopted these principles to provide an effective corporate governance framework for the SMA, intending to reflect a set of core values that provide the foundation for the SMA's governance and management systems and its

interactions with others. As mandated by the Public Bodies Management and Accountability (PBMA) Act, 2001, the BOD is collectively responsible for strategic management and oversight and serves as the focal point for Corporate Governance and is accountable to the responsible Minister and Shareholder. The SMA's BOD began the 2019/20 fiscal year under the chairmanship of Mr. Edward Gabbidon, who assumed that position on November 12, 2018. The members of the BOD and an indication of their expertise are as follows:

BOARD CHAIRMAN – EDWARD GABBIDON



Mr. Edward Gabbidon is the Chairman of the Board of Directors of Spectrum Management Authority, Chairman of the Board of Directors of HEART Trust/NTA, and the Chief Executive Officer of SynCon Technologies Limited, an IT consultancy firm specializing in ICT infrastructure and development.

In a career spanning the banking and communications services sectors, Mr. Gabbidon has served in senior executive positions at LIME and RBTT Bank Limited. A proud graduate of Kingston College, he holds professional designation in Project Management Practices and Principles from the University of New Orleans and an MBA from the University of the West Indies, Mona.

In addition to his strategic leadership of the HEART Trust/NTA, which is currently being merged with the Jamaica Foundation for Lifelong Learning, National Youth Service and Apprenticeship Board, he sits as a member of the Board of Directors of The Port Authority of Jamaica. He also served as Board Member of the Jamaica Digiport from September 2009 to March 2014 and as Council Member of the Private Sector Organization of Jamaica from January 2009 to March 2014. A multifaceted professional, Edward Gabbidon is a certified commercial pilot and a member of the United States Federal Aviation Administration.

VICE CHAIRMAN – DELROY THOMPSON



Mr. Delroy Thompson is an Electronics Engineering Technician, with over 44 years of experience in television and general electronics which includes but not limited to communications, television production, Events Technical Director, Designing of Live Streaming Audio Visual Systems. Mr. Thompson was the Technical Director for Reggae Month 2019 (Gospel Concert, Dennis Brown Concert & Gold Awards), Jamaica Independence GALA Celebrations from 2012 to 2018.

Mr. Thompson also headed the Live Streaming and Videography of Camperdown's Classic Track Meet, In-Sports Primary School and Athletics Championship, Jamaica Senior Cup Cricket Finals in 2016 and 2017, the Pan American Federation CAC Hockey Finals, Boys and Girl Champs in 2013 which was livestreamed to 65 countries, and the Research and Development for Stream VU in North Carolina, USA.

Mr. Thompson is the Vice Chairman of the Board of Directors at the Spectrum Management Authority and is a Board Member for the African Caribbean Institute of Jamaica and Cinematography Authority.

DIRECTOR – MARCIA FORBES, C.D, Ph.D.



Dr. Marcia Forbes is the co-founder, co-owner and Executive Chairperson of Phase Three Productions Limited, a multi-media television production company that provides services throughout the Caribbean region. Her company's work includes projects such as CONCACAF football coverage live from Jamaica and the region to the world and College Basketball transmitted live from Montego Bay to CBS Sports. An Adjunct Senior Lecturer at the University of the West Indies where she lectures master's level students in media management, Dr Forbes, a Fulbright Fellow, is the author of two media-centered, research-driven books used by universities and high schools.

Dr. Forbes was the first General Manager of Television Jamaica (TVJ) and a member of its Board of Directors. Between 1997 to 2003, she spearheaded the transition of this TV station from the loss-making, government-owned JBC TV into the profitable market-leader, TVJ. Dr. Forbes, a former Chair of the Spectrum Management Authority, presently serves as the first female Chairperson of the United Way of Jamaica, a 35-year-old charitable organization. She also serves on the board of Nationwide News Network and the UNESCO Commission.

Dr. Forbes is an active participant in the IDB ConSoc, International Women's Forum (Jamaica Chapter) and a social media advisor to the US Embassy. Her personal commitment to the creative industries of Jamaica is being achieved through continued work in training industry practitioners and interns via internship programmes at Phase Three Productions.

DIRECTOR – MARSHA HAUGHTON



Mrs. Marsha Haughton is a Director at J. Wray & Nephew Limited with responsibility for Treasuring and Accounting. Her work includes managing key business, accounting and planning processes focused on developing efficient solutions to problems and inconsistencies. Mrs. Haughton is also responsible for ensuring financial best practices are adhered to and are continuously relevant. A Chartered Certified Accountant armed with over 14 years of experience in Auditing and Manufacturing/Distributing, Mrs. Haughton excels at efficiency, leadership and team management after gaining experience as a Senior Manager in Assurance at PricewaterhouseCoopers where she was able to work with client's management mendations on risk identification, mitigation and management.

During her time at PricewaterhouseCoopers, Mrs. Haughton's clients included a wide cross section of top tiered companies, such as companies listed on the Jamaica Stock Exchange, manufacturing/distribution entities, companies regulated by the Financial Services Commission, various government entities, affiliates of multinational corporations as well as small and medium-sized enterprises.

Mrs. Haughton sits on the Board of Spectrum Management Authority where she also serves as the Chairman of the Finance and Procurement Committees from 2016 to present. Mrs. Haughton also sits on the Board of the Hope Outreach Center, from 2010 to present, as an instrumental team member in the formation and initial funding of the August Town based Educational Institute providing CSEC examination and GSAT (now PEP) preparation.

DIRECTOR – DALTON YAP



Mr. Dalton Yap is the Chairman and C.E.O. of Park N' Shop Foods Limited, an investment and real-estate holding company. Previously, Mr. Yap was active in the plastic manufacturing industry as the Chairman and Founder of YZ Industries Limited and a Director at the Jamaica National Plastics Industries Limited. Prior to becoming an entrepreneur, Mr. Yap had worked for ten years in the Information and Communication Technology (ICT) sector started in 1983 as the Telecommunications Officer at Citibank N.A. and exited the industry as the General Manager of Technology and Operations at the Citizens Bank Limited in 1993. An author, Mr. Yap published a book titled, *A Matter of Conduct: The True Story of a Man Who Battled a Bank and Won*.

In addition to his appointment to the Board of the SMA, Mr. Yap also sits on the Board of the Chinese Benevolent Association as a Supervisory board member.

DIRECTOR – CAMILLE FACEY



Mrs. Camille Marr Facey is the Managing Partner at the law firm FACEYLAW where her practice focuses on company and commercial law, corporate governance, telecommunications, conveyancing, trusts and estates.

Prior to FACEYLAW, Camille spent ten years at Cable & Wireless (C&W), initially as a Senior Vice President and later as Regional Vice President with responsibility for Legal, Regulatory & Public Policy in Jamaica and the Northern Caribbean. Before C&W she spent eighteen years in publicly traded companies in the financial sector holding positions such as Senior Vice President, General Counsel and Corporate Secretary at what is today Sagicor Bank Jamaica Limited.

Camille currently chairs the Building Practitioners Board established under the new Building Act and the Corporate Governance Committee at the National Solid Waste Management Authority (NSWMA). She serves as a Director on the boards of the Jamaica Chamber of Commerce, the Spectrum Management Authority and Youth Reaching Youth (a registered charity). She also serves as a member of the Corporate Governance Committee of the PSOJ and is one of the advisors to small businesses in the Jamaica Business Development Corporation (JBDC) Accelerator Programme as well as being a member of the Commercial Law Committee of the Jamaica Bar Association.

Camille is the Immediate Past President of the International Women's Forum (Jamaica Chapter) and a former Deputy Chair of CANTO (Caribbean Association of National Telecommunications Organizations). She also served as a member of the Boards of Directors of National Development Foundation of Jamaica; Universal Access Fund Company and Arts Foundation of the Edna Manley College amongst others.

DIRECTOR – KAYDIAN SMITH NEWTON



Kaydian A. Smith Newton has been a practising Attorney-at-Law since 2004. A Thomas Buerghenthal Scholar, she holds a Masters Degree in Intellectual Property Law.

In 2009, Mrs. Smith Newton re-entered the public service as the first Legislative Counsel at the Houses of Parliament; a position she held for three (3) years. Presently, she is the Principal Director, Information and Communications Technology in the Ministry of Science, Energy and Technology.

MANAGING DIRECTOR – MARIA MYERS-HAMILTON, Ed.D.



Dr. Maria Myers-Hamilton has been a pioneer in the fields of Information Technology and Communications for past 30 years. Prior to her assuming the position of Managing Director of the SMA in January 2018, she was involved in several ICT based engagements in both the public and private sector. For a period of close to three (3) years she served as Director of Information Systems at the Jamaica Public Service Company, where she led a team of 70 members and completed 35 ICT projects, within time and budget. She also served as Senior Consultant at Lignum Systems Co. Limited, a firm which provided a wide range of IT consultancy services to both public and private sector companies.

In the mid 2000's she served as Director, Records and Information Management, Registrar General's Department; Manager, Business Development, and Research at Jamaica Promotions Corporation (JAMPRO), prior to which she was employed to RBTT Bank (Jamaica) Limited in the posts General Manager - IT/Chief Information Officer during 2001 – 2004. In 1998 – 2001, she also shared her expertise as Group MIS Manager/Team Lead for Union Bank IT Transformation, with the Financial Sector Adjustment Company Limited (FINSAC).

Dr. Myers-Hamilton holds a Doctorate in Education (EdD) in Instructional Technology & Distant Learning from the Nova Southeastern University, Fischler School of Education. She is currently the Director of the Jamaica Autism Support Association and Trustee Chairperson of eGov Jamaica Pension Fund. Her previous directorships which involved the use and promotion of technology include: eGov Jamaica Limited; Cross Sectoral Coordination - Early Childhood Commission; Jamaica Electronic Transmission (JETS) Company; CaribbeaniSchool and A2Zed Learning Centre (Holy Childhood Prep. School- Kindergarten).

DIRECTOR – ROCHELLE CAMERON



An attorney-At-Law with over 20 years at the Jamaican Bar, **Rochelle Cameron** is a former Crown Counsel with the Office of the Director of Public Prosecutions in Jamaica. She served as Vice President of Legal and Regulatory for Flow Caribbean and Company Secretary of Cable & Wireless Jamaica Limited and its subsidiaries. Ultimately, however, she is focused on the development of people and is committed to helping organisations create an enabling environment in which colleagues are engaged and motivated to tap into and unleash their brilliance.

In keeping with this passion for mobilizing people beyond their perceived limits, Ms. Cameron also served as the Assistant Vice President of Human Resource Development and Public Relations at the Jamaica Broilers Group. She is the founder and Managing Director of Prescient Consulting Services Limited a firm which supports organisations with the development and execution of impactful legal, people and communications strategies. Her blend of business acumen and organizational skills allows her to be a valuable contributor on various private and public sector boards.

DIRECTOR – MARLON MORGAN



Marlon Morgan is a young professional who prides himself on shaping public policy through various advisory and project-based roles that positively impact social and economic life in Jamaica. Mr. Morgan is a Communications Specialist and is currently engaged as Senior Technical Coordinator in the Ministry of Education, Youth & Information.

As Senior Technical Coordinator Mr. Morgan serves amongst members of the Ministry's Executive Management Team where policies pertaining to education, youth development and government communications are conceptualized and implemented. He is actively involved in work being undertaken by the Ministry with respect to Higher Education Reform, ICT in Education, Grooming, the K to 13 Strategy, the Reform of Nutrition in Schools, and the Primary Exit Profile (PEP).

In 2016 Mr. Morgan served as Chief Aide to Prime Minister Andrew Holness and 2 years thereafter as Special Adviser in The Ministry of Industry, Commerce, Agriculture & Fisheries. He is a member of the board of the following organizations: The Caribbean Examinations Council (CXC), The Mico University College, The National Education Trust, the Public Broadcasting Corporation of Jamaica, and the Spectrum Management Authority.

Mr. Morgan is a proud graduate of the University of the West Indies where he was the recipient of the JPSCo. Scholarship and the Archie Singham Memorial Prize for best performance in Caribbean Political Science. He lives by the precept enshrined in the motto of his alma mater Kingston College: 'The brave may fall but never yield'.

DIRECTOR – VAUGHN MCDONALD



Mr. Vaughn McDonald is the Head of Employee Relations at the Jamaica Public Service Company Ltd (JPS) with the responsibility of industrial relations, health and wellness, pension and benefits and compensation. At this organization, he also served as the Manager, Employee Relations where he provided exceptional guidance regarding all matters surrounding grievances, negotiating wage contracts and the relationship with all four (4) unions. Prior to this, Mr. McDonald was the Human Resource Officer in Industrial Relations, and served as Chairman with responsibility for Job Evaluation Anomalies Committee at JPS.

In addition, Mr. McDonald is the Chairman responsible for the Health and Wellness Committee, Pension Trustee for JPS Superannuation Fund, has been a Co-opted Director at eGov Jamaica Limited and Jamaica Bauxite Institute HR and Corporate Governance Committee where he is responsible for offering his HR expertise on all HR matters and matters of Internal Relations.

Additionally, he was also Co-opted at the JPS & Partners Co-operative as well as the Director at the Sugar Company. Mr. McDonald also operated for JPS & Partners Credit Union in the mantle of Chairman responsible for representing the Credit Union in special major decision-making situations as well as a Director and Secretary on the Board of Directors.

DIRECTOR – ROBERT RICHARDS



Mr. Robert Richards is a fully certified Network & Broadband Engineer. He is the CEO of LAN Integrators Limited, a full service IT based company, established in 1993. He is an Enterprise partner for Hewlet Packard, DELL/EMC, Microsoft, General Electric, Ubiquiti & Proxim. Prior to his establishing LAN Integrators Limited, Mr. Richards was employed to various IT Solutions based companies.

His career started off as a Senior Engineer at Computer Business Systems in which he built and assumed the role of Engineering Manager for eight (8) years. He then was hired in a consulting role at a number of IT firms mainly, Aptec, WTC, and Innovative Systems Limited, before the launch of TEAM LAN in 1993. Mr. Richards is known for his work with various Caribbean Islands, namely, Grenada, Trinidad, Barbados and St. Vincent where he pioneered the digital transformation

on many of the major companies like T. Geddes Grant, Century Esilon, and Geo F Huggins.

Some of Mr. Richards' most notable achievements include: the structuring of the Engineering Department at Computer Business Systems Limited to be the leading IT Engineering Department in Jamaica from 1985-1994; being the first Jamaican IT Engineer to publish multiple papers in LAN Times Magazine in California, U.S.; and implementing the first fully computerized retail system in the Eastern Caribbean. Currently, Mr. Richards is a leader in providing infrastructure for the BPO industry and the implementation and management of a number of high speed commercial Wi-Fi installations. Mr. Richards has served in advisory roles to a number of both private and government bodies from 1992. Robert is also a huge sporting enthusiast and has served as President and other leading roles in a number of sporting organisations.

DIRECTOR – CLAUDE PETGRAVE



Mr. Claude Petgrave is a retired telecommunications operative. He has worked extensively in the fields of operations management in telecommunications networks, emergency restoration management and project management. During the period 2012 to 2014, he was employed to Cable & Wireless Communications in the capacities of Managed Services Operations Lead and Network Field Operations Lead. Prior to those appointments, Mr. Petgrave led several major organizational initiatives for the international group including work as International Carrier Implementation Manager aiming to co-ordinate wholesale solutions sold to other carriers and major clientele within the Caribbean.

He also worked as a Project Manager in internal collaborations, vendor relations, international purchases and collaboration between local and foreign government agencies. In addition to his previous management appointments, Mr. Petgrave also served as Network Services Vice President at Cable and Wireless during the years 2008 to 2009 with responsibility for the operation and maintenance of the data, internet, fixed-voice and transmission network elements deployed island-wide.

BOARD OF DIRECTORS' COMMITTEES

April 1, 2019 – March 31, 2020

Role of the Board's Committees

The members of the Board are distributed across four (4) committees which are guided by their respective Charter of Operations, through which they have managed to maintain the highest level of transparency, accountability and integrity in all their operations. These Committees have the right mix of skills, experience, independence and knowledge to enable them to discharge these responsibilities successfully. It is a pleasure to report that all our Directors save one are designated Professionally Accredited Directors having successfully completed the Professionally Accredited Directors Designation

Course, which was delivered by GovStrat Limited in the last quarter of the 2018/19 fiscal year. In fact, this course was aimed at providing Corporate Directors with the knowledge, skills and competencies required to provide the most effective governance oversight and monitoring of firms' performances. The responsibilities and roles of these four (4) committees of the Board along with an indication of the members who served in various respects during the year were as follows:

TECHNICAL OPERATIONS COMMITTEE	COMMITTEE MEMBERS
<p>Provides oversight and support to the management team of the Spectrum Management Authority on the technical, regulatory and policy aspects of the Authority's operations. The Committee also ensures that the technical operations of the Authority are in keeping with international best practices for spectrum management and will satisfy the local demand for spectrum use.</p>	<ul style="list-style-type: none"> • Claude Petgrave (Chair) • Edward Gabbidon • Delroy Thompson • Dalton Yap • Kaydian Smith Newton
FINANCE & PROCUREMENT COMMITTEE	COMMITTEE MEMBERS
<p>The Finance and Procurement Committee provides oversight in reviewing and resolving financial and procurement issues and to ensure that funds are fully accounted for and procurement of goods and services are done in compliance with the Law. Additionally, this Committee has oversight of the procurement process to ensure compliance with the Public Procurement Act, 2015 and its Regulation, 2018.</p>	<ul style="list-style-type: none"> • Marsha Haughton (Chair) • Marlon Morgan • Delroy Thompson • Vaughn McDonald
AUDIT COMMITTEE	COMMITTEE MEMBERS
<p>The Audit Committee advises the Board on practices and procedures which will promote productivity and the quality and volume of service; the adequacy, efficiency and effectiveness of the accounting and internal control structure and systems of the public body and the independence of the auditors auditing the public body. Among other things, this Committee also reviews and advises the board on the financial statements that are to be included in the Annual Report of the SMA and oversee the internal audits of the Authority.</p>	<ul style="list-style-type: none"> • Robert Richards (Chair) • Rochelle Cameron • Dalton Yap • Rohan Townsend (Co-opted)

CORPORATE GOVERNANCE COMMITTEE

COMMITTEE MEMBERS

The Corporate Governance Committee assists the Board in fulfilling its oversight responsibilities and ensures that the SMA adheres to its corporate governance mandate in line with the Public Bodies Management and Accountability Act, 2001 (PBMA), the Authority's Memorandum and Articles of Association, Corporate Governance Framework for Public Bodies and all other applicable laws, regulations and government guidelines.

- Vaughn McDonald (Chair)
- Camille Facey
- Marcia Forbes
- Rochelle Cameron
- Kaydian Smith Newton
- Maria Myers-Hamilton

Conflict of Interest

The Board and its Committees are cognizant of the fact that conflicts of interest could constitute a significant issue in that they affect ethics by distorting decision-making and generating consequences that can undermine the credibility of the Board and its corporate governance systems.

In keeping with international best practices, the Charter of Operations for the Board as well as the Charters for the four (4) Board Committees, outline the manner in which members of the Board and its Committees should handle conflicts of interest. A Director has a duty to avoid as far as possible,

activities that could create conflicts of interest or the appearance of conflicts of interest and must disclose to the Board any matter that may result, or has already resulted, in a conflict of interest. Where a conflict of interest arises, Directors have a responsibility to declare their interest and recuse themselves from the relevant Board or Committee meetings without deliberating or voting on the proposal or transaction that was laid before it. The committee members understand their duty of care to the Authority and its stakeholders and continue to exercise their fiduciary responsibilities with transparency and integrity.

RECORDS OF ATTENDANCE

For the 2019/20 fiscal year, the SMA scheduled eight (8) meetings of the Board of Directors. Additionally, meeting with regards to four (4) Committees of the Board were also held. A summary of the attendance of Directors at meetings of the Board and its Committees for the FY are outlined in the table below:

	BOARD 8 ¹ MEETINGS	ANNUAL GENERAL 1 MEETING	AUDIT 6 ² MEETING	FINANCE & PROCUREMENT 7 MEETINGS	CORPORATE GOVERNANCE 6 MEETINGS	TECHNICAL OPERATIONS 6 MEETING	JOINT FINANCE AND AUDIT 1 MEETING	CORPORATE RETREAT 2 ³ MEETINGS
Rochelle Cameron	6	1	3	-	2	-	1	-
Camille Facey	7	1	-	-	6	-	-	2
Marcia Forbes	7	1	-	-	4	-	-	2
Edward Gabbidon	8	1	-	-	-	5	-	2
Marsha Haughton	6	-	-	7	-	-	1	2
Vaughn McDonald	8	1	-	5	6	-	1	2
Marlon Mrogan	8	1	-	7	-	-	1	2
Maria Myers Hamilton ⁴	8	1	-	4	4	4	1	2
Claude Petgrave	7	1	-	-	-	6	-	2
Robert Richards	4	1	6	-	-	1 ⁵	-	2
Kaydian Smith Newton	7	1	-	-	5	5	-	1
Delroy Thompson	8	1	-	7	-	6	1	1
Dalton Yap	6	1	4	-	-	6	1	2
Rohan Townsend	-	-	6	-	-	-	1	-

¹ Special Board of Directors meeting held on June 12, 2019.

² Includes participation of two (2) members and a co-opted member of the Audit Committee who conducted Interviews for the post of Internal Auditor on January 27, 2020 and February 27, 2020 in keeping with responsibilities outlined in the Audit Committee Charter.

³ A 2-day Corporate Retreat was held with Board and the management team during the period October 11-12, 2019, only mileage was paid.

⁴ Maria Myers-Hamilton is an Ex-officio Member, therefore she is not compensated for attendance at Board or Committee meetings.

⁵ Robert Richards attended the Technical Operations Committee meeting on 2019 November 11 by invitation.

⁶ Rohan Townsend, Chartered Accountant is a co-opted member of the Audit Committee.

BOARD OF DIRECTORS' REPORT

During the the 2019/20 fiscal year (FY), the Spectrum Management Authority (*the SMA or the Authority*) gave continued efforts towards the accomplishment of its Corporate Goal which is to Regulate Effectively. The SMA is mandated to efficiently manage the RF spectrum, including assigning rights for the use of the spectrum and ensuring compliance in a transparent and non-discriminatory manner. In fulfilling its mandate during the 2019/20 FY, the SMA provided 'clean spectrum' to facilitate the advance of the island's digital economy. Today, the RF spectrum, more than ever, is globally identified by policy makers as a key resource to support growth in the digital economy. The remarkable growth in the use of smartphones and other wireless devices, experienced in recent years, has increased demands on the radio frequency spectrum throughout the Jamaican communication landscape. Virtually all sectors of the island's economy, from education to health care or small and medium-size enterprise (SME) productivity, continue to reap value from locally available wireless communication services.

Against this background, and on behalf of the Management and Staff of the SMA, the Board of Directors is pleased to present the Annual Report of the SMA, for the financial year ending 2020 March 31 in accordance with Sections 22 and 23 of the

Public Bodies Management and Account-ability (PBMA) Act, 2001. The 2019/20 FY saw the management and staff employing several strategies to ensure that the business of the SMA operated at a optimum level while serving the interest of its stakeholders. Notwithstanding the challenges faced by the organization, such as the loss of key personnel and the Covid-19 pandemic, the SMA was able to exceed its core operational targets (licensing – new and renewal, interference management, and financial management) as well as a number of developments and major initiatives, which contributed to national development.

The development initiatives during the FY included: the installation and commissioning of its ninth (9th) fixed monitoring site, located in Savanna-la-mar, Westmoreland; building renovation of adjoining office space; and the implementation of e-Commerce payment platform. Major initiatives included the staging of the SMA's inaugural G5 Symposium in Montego Bay, which focused on *"The Sustainable Use of Spectrum"*, and the SMA's participation at the World Radiocommunications Conference 2019 (WRC-19), which was held in Egypt.



Figure 1 – A view of the SMA's main office building along Harbour Street, Kingston

Corporate Performance

For the 2019/20 fiscal year (FY), the SMA was able to exceed the KPIs established in relation to the core operational activities of licensing (new and renewal), interference management and financial management.

1. Licensing

New Licensing

During the 2019/20 FY, the SMA received 280 new applications in addition to the 8 applications brought forward from the 2018/19 FY which were not yet granted, resulting in 288 applications handled for processing. Of the 288 handled, 263 or 91% of applications were approved for the grant of a licence, whilst 11 were cancelled. Of the 263 applications approved, 259 or 98%, were processed within their respective established processing times, which exceeds the targeted KPI of 80%. In the previous fiscal year, 2018/19 the SMA handled a total of 254 new applications with 205 (or 81%) of that amount being approved for the grant of license. Processing times range from 1 business day to 25 business days, depending on the type of licence to be processed. Licences granted during the FY were to facilitate maritime, aeronautical, amateur and particularly mobile communication services, among others. Marine licences (Temporary and Permanent)

Table 1 - New Licence Applications Granted by Type for last two FYs

LICENCE TYPE	GRANTED 2018/19	GRANTED 2019/2020
Aeronautical	1	1
Alien Amateur	11	6
Amateur	1	6
Citizen Band	3	1
GMDSS	9	4
Private Radio (Major)	0	0
Private Radio (Other)	35	35
Marine (Temporary)	61	81
Marine (Permanent)	80	126
Marine (Non MAJ)	3	0
VSAT	1	3
TOTAL	205	263

processed under the SMA's MOU with the Maritime Authority of Jamaica (MAJ) represented the largest share of licences approved during the financial

year, which have quality of service targets of 1 day and 3 days for temporary and permanent licences respectively.

Renewal Licensing

The SMA renewed 439 licences for the FY, which represents a performance rate of 92%. This performance is above the KPI of 85%. The FY's target was 463 existing licences, however there were 16 cancellations, and 42 clients requested reinstatement of their licences. This had a plus 26 net effect on the initial target of 463 bringing it to 479. Note that licences are only renewed after receipt of payment.

Table 2 – Number of Licences Targeted and Approved for Re-

Fiscal Year	Renewed	Revised Target
2017/2018	405	451
2018/2019	419	478
2019/2020	439	479

As at 2020 March 31, of the 439 licences renewed, all save one (1) were processed within the standard processing time of 5 business days after receipt of payment. This represents a performance rate of 99.8% which is above the KPI of 90% (or 395 of the 439) for this activity. It is worth noting that for the last three fiscal years, notwithstanding the number of licences being targeted for renewal, the SMA has seen a steady increase in the number of licences being renewed.

Type Approval

For the 2019/20 FY, 30 applications were brought forward from the previous fiscal year, primarily awaiting additional information. There were 352 new applications received during the year bringing the number of type approval handled to 382. Of the 382 handled, a total of 357 type approval certifications were granted, four (4) were cancelled, and 17 were withheld pending further information from the applicants. Of the 357 granted, 354 or about 99% were processed within the standard processing time of 10 business days. This performance is comfortably

above the activity's KPI which aims to process 80% of these type approval applications within the standard time of 10 business days. Data for the past three years shows a gradual increase in the number of devices requiring type approval reflecting the increasing demand for the use of wireless devices in Jamaica. Devices that required type approval during the FY included the following: *Mobile Phones, Bluetooth Headsets, Immobilizers, Car Radios, Wi-Fi Cards, and Remote Keyless Entry Devices.*

Table 3 - Type Approvals Received and Granted for last three (3) FYs

Year	Applications Received in FY	Applications Handled in FY	Granted/ Approved
2017/2018	256	271	247
2018/2019	311	331	295
2019/2020	352	382	357

2. Interference Management

For the year under review, the M&I Department investigated 37 cases of interference reports that

Table 4 - Comparison of Actual and Budgeted Revenue – 2019/20 FY

	ACTUAL	BUDGET	KPI (90% TARGET)	ACTUAL vs KPI VARIANCE
	\$'M	\$'M	\$'M	\$'M
Processing Fees	16.58	11.35	10.22	6.36
Regulatory Fees	447.99	394.28	354.85	93.14
Interest Income	16.53	12.14	10.93	5.60
Other Income	6.27	91.69	82.52	(76.25)
TOTAL	487.37	509.46	458.52	28.85

were received during the 2019/20 FY. One (1) case was brought forward from the 2018/2019 financial year and three (3) cases were pending as at 2020 March 31. It may be useful to note that these pending cases require collaboration with external entities such as the Ministry of National Security and the Broadcasting Commission. Of the 37 cases reported, 34 were

resolved as at 2020 March 31, and were all within their respective resolution times, which represents 100% compliance against the standard KPI of 90%.

3. Financial Management

Income

In any business enterprise, proper management of finances aids the achievement of business objectives. Sound financial management involves a deliberate and consistent control of all incomes, expenditures, assets and liabilities to ensure the continued sustainability and the efficiency of the business. It is with this principle in mind that the SMA through its efforts to improve the quality of its service outcomes, operational and strategic decision-making, has been building public trust in the performance of the sector; and ensuring the efficient and effective use of its revenues. For the year ended 2020 March 31, the SMA booked total income amounting to \$487.37M, which is above the KPI of \$458.52M or 90% of budget. The table below compares the actual, budgeted, and KPI performance levels.

Expenditure

Actual expenditure (including depreciation) incurred by the SMA during the 2019/20 FY amounted to \$420.77M for the 12 months ended 2020 March 31, which was well within the budgeted amount of \$508.89M. The two main areas contributing to the

positive variance were from salary and related cost and gain or loss on foreign exchange. In relation to Salaries & Related Cost, eight (8) vacant positions as well as four (4) new positions were budgeted, in addition to further increase in salary anticipated from the budgeted reclassification exercise. Only the Ministry of Finance's ('MoF') approved 4% increase

materialized. Additionally, the SMA realized foreign exchange gain which was not budgeted.

The SMA continues to seek ways to reduce costs, ensuring best value for money, while minimizing and mitigating against any fallout or negative impact this might have on the level and quality of services delivered to our customers.

Collection of Spectrum Licence Fees

Spectrum Licence fees are collected on behalf of the GOJ and are remitted to the Consolidated Fund via Tax Administration of Jamaica. Actual collection of Spectrum Licence fees for the 12 months ended 2020



March 31, (excluding interest & FX changes) amounted to **\$1,637.45M**. This is \$288.67M above the budgeted amount of **\$1,348.78M**, and **\$558.43M** or 152% above the targeted KPI for collection of **\$1,079.02M**.

Total remittance for the year amounted to \$1,674.12M (including amounts brought forward from the previous FY) exceeded both the budget and targeted KPI amounts by \$325.34M each, or 124% of the targeted remittance. **Please note that Spectrum Licence fees collected on mobile licences are remitted in the month it is collected, whilst for all other categories of licence it is remitted in the month after they are collected.**

Based on the performance for the 2019/20 fiscal year, the SMA has strategically position itself for achieving greater efficiencies in the upcoming 2020/21/ FY.

Capital Development and Major Activities

Despite the challenges of the new coronavirus pandemic (COVID-19) which heavily impacted our operations during the last quarter of the 2019/20 FY, the management and staff of the SMA was able to accomplish a good variety of major activities and also improve upon the Authority's capital infrastructure.

Below are highlights of the capital development projects, major activities and initiatives, which were accomplished during the year.

Capital Development

Monitoring Capacity Project

Following-up from the previous FY, during 2019 April, the SMA has again successfully commissioned another Radio Monitoring and Direction Finding System (RMDFS), increasing its monitoring capacity, this time in the Savanna-la-mar and surrounding areas. The increased capacity will further enhance the SMA's capability to monitor the area remotely, to detect illegal use and to ensure assignment of interference free (clean) spectrum, which enhances the SMA's effectiveness in managing the radio frequency spectrum. Focus has been shifted to the Portland Site (Port Antonio Hospital), where the Licensed Agreement has been finalized. The Portland Municipal Corporation granted its approval for the erection of the monitoring site at the sitting of its Planning Committee Meeting held February 2020.

Building Renovation – The Annex

In the last quarter to the 2018/19 FY, the SMA reengaged its efforts to renovate its adjoining office space ('The Annex') located at 21-23 Harbour Street. During the FY, the services of several qualified contractors were secured to conduct renovation works to include demolition and alterations; ceiling finishes; floor finishes; wall finishes; joinery; sanitary wares and plumbing; installation of doors and glazing; electrical installation and the supply and installation of air conditioning units.

The status of the works with regards to the renovation of the Annex as at 2020 March 31, were as follows:

- Demolition and site clearance – 100% complete
- Hack up and installation of floor and wall tiles – 98% complete
- Erection of wall partitions – 100% complete
- Electrical and engineering services works – 40% complete
- Installation and framing of ceiling tiles – 45% complete
- UPS Infrastructure – 55% complete

E-Commerce Payment Platform

The SMA during the first half of the 2019/20 FY implemented an e-payment system, via the SMA website, whereby applicants can pay for certain licences and fees. Users are able to access the e-payment service to pay licences and fees in relation to Amateur Services, Citizen Band Radio Services, Type Approval Certification and in requesting duplicate of spectrum licence held.

The e-payment portal, through the assistance of National Commercial Bank (NCB) was made active, as at 2019 September 30. Subsequent to the requisite training, the credentials of the SMA's Accounts Department were received from NCB's Administration Department along with sensitization documents to assist staff in carrying out their task(s) in the e-payment portal.

Major Activities

G5 Symposium – Montego Bay, St. James

On Friday, 2019 October 11, the SMA held its inaugural G5 Symposium at the S Hotel Montego Bay, under the theme *“Improving Network & Digital Industry Regulations: The Sustainable Use of Spectrum”*. The execution of this forum, came as an idea from the Managing Director, Dr. Maria Myers-Hamilton, who believed that there was a gap that existed between stakeholders, the Government and regulators. This symposium therefore presented the ideal opportunity to bring all entities and experts within the industry under the same roof to discuss crucial topics that we are currently facing at a local, regional and international level.

In order to ensure that a wholesome discussion took place, the SMA invited international experts within the industry including the Federal Communications Commission (FCC), Caribbean Telecommunications Union (CTU), VIASAT, Access Partnership and Facebook to participate in the Symposium. Locally, present were Ministers of both Science, Energy & Technology and Education, Youth Information; Hon. Fayval Williams & Hon. Alando Terrelonge respectively to lead discussions on specific topics and give insight into the way forward for the Government of Jamaica.

The Hon. Fayval Williams, brought greetings in her capacity as the Minister of Science Energy and Technology. She underscored the importance of agile regulation to ensure that technology meets the public interest. The Minister argued that effectively-managed and utilized spectrum, for example, opens opportunity to take advantage of technology such as 5G. She described the role of the Spectrum Management Authority as being vital to the country's development.

In attendance also was the Hon. Julian Robinson, MP, and Opposition Spokesman on Technology who brought greetings on behalf of the Opposition, and highlighted critical discussion points in relation to technology, specifically issues related to the implementation of 5G technology.



Figure 2 - The Hon. Fayval Williams, speaking at the G5 Symposium in Montego Bay.

Ultimately, the day was indeed a success as through the various panel discussions and addresses given by the experts in the room, it led to various commitments being given by international, regional and the Government of Jamaica (GoJ) and highlights the respective gaps that presently exist which require attention. There was great recognition that collaboration was necessary to move forward on a positive path especially as there are great advancements currently taking place in the international community relating to 5G technologies and transitioning from analog to digital means of operation. It is the hope of the SMA through partnerships with our stakeholders to connect the unconnected and unserved within the country and ensure that citizens are receiving the optimal service from our local stakeholders within the respective industries who utilize spectrum. The symposium highlighted that great potential and opportunities exists for Jamaica to continue to forge the way for the Caribbean region and to assist with the socioeconomic development of the country.

World Radiocommunication Conference 2019 (WRC-19)

A team from Jamaica that featured representatives from the SMA, and from the MSET, participated at World RadioCommunications Conference 2019 (WRC-19), which was held in Sharm El-Sheikh, Egypt,

from October 28 to November 22, 2019. A record 3400 participants attended WRC-19, including delegates from approximately 165 of the 193 ITU Member States, as well as more than 260 members of the ITU Radiocommunication Sector (ITU-R).

Among the key outcomes of the WRC-19 which might be of immediate interest to Jamaica are the (i) *Additional bands for IMT* (ii) *High-altitude platform stations (HAPS)* and (iii) *Earth stations in motion (ESIM)*. The conference identified additional globally harmonized (millimetre wave) frequency bands for International Mobile Telecommunications (IMT), including IMT-2020 (otherwise known as 5G mobile), facilitating diverse usage scenarios for enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications. 5G is expected to connect people, things, data, applications, transport systems and cities in smart networked communication environments and transport a huge amount of data much faster, reliably connect an extremely large number of devices and process very high volumes of data with minimal delay.

Secondly, WRC-19 has agreed to identify additional radio-frequency bands for High Altitude Platform Station (“HAPS”) systems. HAPS operate in the



Figure 3 - (From Left to Right) Prof. Lloyd Waller, Executive Director Global Tourism Resilience and Crisis Management Centre, Mr. Brian Carter, Senior Counsel & Regional Specialist for Europe and the Caribbean at the Federal Communications Commission, Mr. Maurice Charvis, Deputy Director OUR, Mr. Robert Shaw, JPSCo and Mr. Nigel Cassimire, Caribbean Telecommunications Union participating in a panel discussion at the SMA’s G5 Symposium in Montego Bay, Jamaica.

stratosphere (layer of the Earth's atmosphere starting at 20 kilometres) and are high enough to provide service to a large area or to augment the capacity of other broadband service providers.

Thirdly, consensus was reached at WRC-19 on a new Resolution that will boost the deployment of Earth stations in motion (ESIM). ESIM address a complex challenge: how to provide reliable and high-bandwidth Internet services to what are – literally – moving targets. They provide broadband communications, including Internet connectivity, on platforms in motion. The decision on ESIMs will connect people while in planes, ships, and trains to communication links with geostationary satellites.

Legal, Policy and Regulatory Initiatives

During the 2019/20 FY, the SMA executed its mandate with respect to legal, policy and regulatory initiatives through, inter alia, the following activities:

Amateur Radio Services

On 2019 April 30, a MOU, an Examination Handbook and a Pool of Questions were finalized between the SMA, Jamaica Amateur Radio Association (JARA) and the Postmaster General (PMG), to give effect to the amendments of the Radio and Telegraph Control (Amateur Radio Service) Regulations and the Radio

and Telegraph Control (Radio Operators and Technicians) Regulations, 1974.

- A licensing framework for amateur radio operations in Jamaica was developed during the second quarter of the FY. The Framework document is to regularize the licensing activities for amateur radio operations in Jamaica in-line with international best practices.
- On 2019 November 29, the SMA conducted the examination for the Jamaica Amateur Radio Class "B" Radio Station Licence, the first in over a decade. Previously, the examination was administered by the Post Master General (PMG), but some members of the JARA had repeatedly expressed concerns about the length of time taken to conduct examinations, mark papers and issue licences. Following the finalization of the MOU between the SMA and JARA in 2019 April, the SMA assumed responsibility for handling the examination. The deadline for exam registration was set for November 1, 2019 and notices were published in the Gleaner and Observer newspapers on 2019 October 20 to that effect. The fourteen (14) candidates which sat the examination on November 29 were advised of their results on 2019 December 16.
- Following the creation of the Amateur Radio



Figure 4 - (From left to right) Mr. Cecil McCain, Ministry of Science, Energy & Technology, Dr. Maria Myers-Hamilton, Managing Director SMA, Mr. Mahlangu Lawson, Manager Band Planning and Mr. Tai-Shan Tracey, Telecommunication Engineer, at the World Radiocommunications Conference '19 in Egypt.

Service Framework, a review was conducted in 2019 October on Amateur Radio licences previously issued in an effort to confirm whether legislative processes were adhered to. On 2019 October 18, it was noted that there were licences issued which were not in accordance to the law and needed to be withdrawn. On 2019 October 22, a letter was sent to the President of JARA advising of the SMA's decision to vary previously issued licences. The affected licensees were similarly advised on 2019 October 31. Additionally, by letter dated 2019 November 11, the affected individuals were advised of the SMA's decision to vary incorrectly issued licences. These persons will be issued with the correct licence for which they are eligible in the 4th Quarter 2019/2020.

Radio Technician Licence – University of Technology, Jamaica (UTECH)

Since 2007 the SMA has been collaborating with the University of Technology to administer the course and examination leading to the grant of a Radio Technician Licence. In or about 2017 May, discussions were initiated with a view to restructure the course, to facilitate a more convenient mode of learning. Further to internal deliberations on 2019 June 29, it was determined that an alternative method to conduct the examination should be explored. As at 2019 July, the SMA has shifted away from finalizing the Agreement with UTECH and instead has engaged an online open source learning management platform to achieve the objectives.

Spectrum Pricing Policy

During the last half of the FY, the SMA's technical staff made marked contributions towards the formulation of a Spectrum Pricing Policy, an initiative which emanated from the recommendation of the Spectrum Management Framework report. Subsequently, in the fourth quarter of the FY, the SMA, in an effort to implement the recommendations, acquired the services of a consultant, Engine Room Brand House, with the task of developing and recommending the pricing structure for various bands of spectrum. The prices to be developed shall consider spectrum licence fees that are payable to the GoJ and regulatory fees, which is to cover the operating expenditure of the SMA. The consultancy is slated for completion within the first quarter of the 2020/21 FY.

Digital Television Switchover

On 2019 December 20, a meeting was held, which included Minister Fayval Williams, Senator Robert Morgan and Permanent Secretary-Carol Palmer, whereby discussions were had regarding recommendations submitted to the Prime Minister, on the Digital Television Switchover. Based on a request emanating from the meeting, during 2020 February 22-28, the Managing Director along with representatives from the Broadcasting Commission of Jamaica (BCJ), visited the United States and embarked on a reconnaissance process. The team was able to get firsthand information on the operations of the ATSC 3.0 digital standard and met with ATSC stakeholders in Baltimore, Washington; Phoenix, Arizona; and in Santa Barbara, California. The information gathered will be used to inform the policy decision to be taken regarding the digital standard which will be used in Jamaica.

Information Technology Infrastructure

In an effort to be efficient, the SMA's focus with respect to Information Technology (IT) has been to maintain core technologies, plan for technology evolution and promote centralized data storage. The strategy employed for the 2019/20 FY was to consolidate business operations on standardized applications, implement effective communication tools and enhance local area network (LAN) and wide area network (WAN) connectivity. During the FY, the IT Department undertook several initiatives which included:

- *Weekly Website Maintenance* – This activity include: security maintenance, backup of data bases, backup of site content, backup of core platform files, and transferring all backups from Web Hosting Server to SMA local storage.
- *Implementation of an IT Help Desk* – The IT Department implemented an 'IT Help Desk' protocol which aimed at providing structured, quick and accurate technical assistance to staff and to ensure that the streamlining of incident management and request management result in 'reduced cost' and a good customer experience for the staff. At the end of the FY all reported 'requests' and 'incidents' have been satisfactorily resolved.

- *FortiGate Software* – Installation and integration of FortiGate Software in SMA's local and wide area networks was successfully completed during 2019 April. The FortiGate software enable security-driven networking and consolidate security capabilities such as intrusion prevention system (IPS), web filtering, secure sockets layer (SSL) inspection, and automated threat protection.
- *Server and Storage Infrastructure* – By the end of the FY, the SMA completed a Server and Storage infrastructure upgrade. Two (2) new servers and a Network-Attached Storage (NAS) were installed configured and placed into production, with relevant applications and data being migrated accordingly. Additionally, a 50Mb/s Metro Ethernet link was established with E-Gov Jamaica Limited to allow for the establishment of an offsite disaster recovery backup location.
- *Computer & Equipment Upgrade* – In 2020 March, new desktop and laptop computers were procured, distributed to select staff and deployed on the SMA's office network. These new machines offer increase business efficiency, staff productivity, improved capabilities and greater capacity relative to the older ones, most of which were more than five years old. Among the laptops were 'ruggedised laptops' which were provided to engineers from the M&I Department which are required to be daily in the fields. These laptops are specifically built to manage the demands of rigorous outdoor working environments.

Regional and Global Obligations

It is the SMA's commission to promote the development of spectrum management policies that conform to the international treaty obligations of the Radio Regulations while meeting national spectrum needs. Within the national legal framework for telecommunications the SMA has the delegated responsibility to prepare spectrum plans that meet government policies. Accordingly, it is critical that the Authority participates in international fora (and influence outcomes) considering that all the international (global, regional or bilateral) spectrum management decisions will have an eventual impact on national legislation, regulations

and spectrum use. During the 2019/20 FY, the Authority remained committed to honouring its regional and global obligations particularly, those held by the CTU, CITEL, ITSO, and the ITU. Highlights of our main engagements are as follows:

International Telecommunication Satellite Organization (ITSO) Advisory Committee (IAC)

The Twenty-second (22nd) Meeting of the International Telecommunications Satellite Organization ('ITSO') Advisory Committee was convened in Washington, D.C. on 2019 May 30-31. The ITSO Advisory Committee (IAC) comprises representatives from 23 Parties to the ITSO Agreement. Jamaica, which is represented at the IAC meetings by the Spectrum Management Authority (SMA), represents Barbados, Haiti, Trinidad & Tobago and the Bahamas as a member of Region A. Jamaica's delegation to the meeting consisted of Ms. Wahkeen Murray, Chief Technical Director, Ministry of Science, Energy and Technology (MSET), the SMA's Dr. Maria Myers-Hamilton, Managing Director and Mr. George Malcolm, Director, Policy & Strategic Planning. This meeting was convened, inter alia, in preparation for the Thirty-Ninth Ordinary Meeting of Assembly of Parties (AP-39), slated for 2020, and to outline the preparatory work on the future of the ITSO Agreement.

The Twenty-third (23rd) Meetings of the ITSO Advisory Committee was convened in Washington, D.C. on 2020 January 16-17. The IAC comprises representatives from 23 Parties to the ITSO Agreement. The SMA reports to the GoJ on all IAC meetings attended. Reports on the meetings are also submitted to the members of Region A.

InterAmerican Telecommunications Commission (CITEL)

Representatives from the SMA, to include the Managing Director, formed the majority of Jamaica's delegation in attendance at the 34th meeting of CITEL's Permanent Consultative Committee II, (PCC II). The meeting which was held in Ottawa, Canada, was the final of its kind before the World Radio Communications Conference 2019 (WRC-19), which was held in Egypt during 2019 October and November. With the approval of the Minister with portfolio responsibility

for Technology, the Hon. Fayval Williams, Jamaica was able to provide support to several proposals from the Americas region that formed part of the deliberation at WRC-19.

Federal Communications Commission (FCC)

Following discussions that took place at the G5 Symposium held in 2019 October in Montego Bay, the Federal Communication Commission (FCC) invited a team from the SMA to meet with key members of their organization to discuss pressing and important issues surrounding organizational structure, policy and the strengthening of the existing relationship. The participation at these meetings were vital as the SMA is currently in the process of establishing the Spectrum Management Framework and therefore would assist in informing the way forward. As a prominent single regulator within the international community, valuable information and insight was acquired in these meetings. The attendees on behalf of the SMA were Ms. Kadianne Wood, Director Legal Affairs and Mr. Jamaro Marville, Manager, Policy & Strategic Planning.

Corporate Social Responsibility

The Authority continued its convention of integrating social and educational development goals into business operations. It is envisioned that through the undertaking a select range of voluntary social, educational and environmental initiatives, the Authority will improve its visibility among all its stakeholders. More importantly, the SMA hopes to realize an appreciation of its roles and functions by the average consumer and attract top-quality talent and clients to facilitate long-term financial success. Through these activities the Authority is being made socially accountable – to itself, its stakeholders, and to the people of Jamaica. The following are some of the activities which were conducted throughout the 2019/2020 FY.

Public Awareness Campaign

In 2019 October, the SMA contracted the Jamaica Information Service to execute a Public Awareness Campaign to ultimately sensitize the general public of the roles, functions, achievements and future of the

Authority. This Campaign is utilizing various media, including radio, television, outdoor advertising, social media, website content enhancement and the wrapping of a Metro Bus in Montego Bay. This contract was scheduled to run for a period of six (6) months and works under the project begun in January 2020.

As at March 31, 2020, three of the six deliverables, namely, the public service announcement, the radio drama, and the webpage banner have been finalized. The remaining three deliverables being the social media engagement, the outdoor advertising and the wrapping of a metro bus in Montego Bay will be completed in the first quarter of the 2020/21 fiscal year. At that juncture there will be a fulsome roll out of the SMA's public awareness programme.

SheLeadsIT Caribbean Girls Hack – 2019 Hackathon

“In a rapidly changing technological era, we cannot afford to have distinctions between men and women. I believe that you, our girls and women, have tremendous knowledge that when harnessed, can contribute to building a strong technology infrastructure for Jamaica,” Minister Fayval Williams MP, Minister of Science, Energy & Technology.

The SMA participated in the “SheLeadsIT Caribbean Girls Hack – 2019 Hackathon” on 2019 May 14. As one of the sponsors of the event, the Authority played a major role in sensitizing girls in secondary schools of the vast scope of educational and employment opportunities that exists outside of the traditional industries that are promoted. Having an interactive display booth, members of the SMA team were able to interact with girls from approximately 10 high schools throughout the day. Additionally, the SMA's prizes to the winning teams included participation in the Authority's summer employment programme as well as an invitation to a SMA sponsored 1-day Fox Hunt held in the Summer of 2019.



Figure 5 - Participants at the SheLeadsIT Hackathon 2019, which included the Hon. Fayval Williams, MP Minister of Science, Energy and Technology and the SMA's Managing Director, Dr. Maria Myers Hamilton.

Summer Employment Programme 2019

During the first half of the 2019/20 FY, the SMA once again implemented its Summer Employment Programme. The programme provided summer employment opportunities, within the SMA and other government agencies, for secondary and

tertiary students. The students were granted 7 weeks employment for different periods during the summer. A total of 42 students participated in the programme, with the first group of interns commencing their 7 weeks employment on 2019 June 17, while the second group started on 2019 July 17.



Figure 6 - Dawn Staple, Manager Human Resources and some of the participants of the Summer Internship Programme '19 at the Closing Out Session held at the Spectrum Management Authority.

Higholborn Street Basic School

As part of the Authority's corporate social responsibility endeavours, arrangements were made to assist the Higholborn Street Basic School (located in the immediate community) with critical renovation works as well as assist the school in obtaining certification by the Early Childhood Commission. As at 2020

March 31, all renovation works were completed. The works included replacement of doors and door jams, tiling of classroom floors, installing of roll-away partition to separate classrooms and installing partition with cupboards as well as painting of these installations.



Figure 7 - Photograph highlighting some of the work completed at the Higholborn Street Basic School, an outreach project of the Spectrum Management Authority.

Tech Beach Retreat

On 2019 December 5-7, in Montego Bay, Jamaica, the Spectrum Management Authority sponsored and participated in the annual hosting of the Tech Beach Retreat which was presented by Google. In line with the Prime Minister's vision of Jamaica's emergence as a truly digital economy, Tech Beach is a platform designed to foster innovation and drive technology in our market. Additionally, Tech Beach Retreat is a fast emerging and widely celebrated global community of tech entrepreneurs, investors, influencers, enthusiasts and innovators meeting under the idyllic backdrop of the Caribbean sun, sand and sea. Confirming over 300 participants from companies such as Google, Facebook,

Amazon and LinkedIn, this forum allowed for great networking opportunities and to allow for the wider international community, specifically those in the private sector, to have a greater appreciation and understanding regarding matters of spectrum frequency. The Managing Director was also given the opportunity to participate in a panel discussion under the theme, 'Privacy, Cyber Security and the New Paradigm of Everyday Life'. In this discussion, Dr. Myers-Hamilton highlighted the future of wireless technologies, wireless vs fibre optic use (strengths and weaknesses) and how are technological advancements posing security threats to the international community.

F.I.R.S.T Tech Challenge Jamaica National Robotics Competition

The Spectrum Management Authority participated as a bronze sponsor for this year's Robotics Competition held from 2020 February 28-29, at the Jamaica College. This competition included thirty (30) high schools across Jamaica with over 250 students. It required of students to design, build and program their respective robots and

During the last quarter of the 2019/20 fiscal year, some of the Authority's targets and expectations were negatively affected, as Jamaica was significantly impacted by the coronavirus pandemic (COVID-19). For its part, the Management, in an effort to limit the impact of COVID-19, provided all employees, with timely and relevant updates throughout the period. Additionally, in anticipation of measures to reduce staff movement due to the



Figure 8 - Mr. Jamaro Marville, Manager Policy & Strategic Planning and Students from the Jamaica College at the F.I.R.S.T Jamaica Robotics Competition '19.

participate in a series of team building competitions over the two (2) days. The Authority believed that this initiative was indeed an important one as not only did it promote great levels of team and capacity building within the industry but also provided an opportunity to educate young and budding engineers of the various unorthodox career paths that exist within the field. As sponsor, one of the team members, Mr. Jamaro Marville; Manager Policy & Strategic Planning participated as a judge for the competition which was indeed a success.

Coronavirus Pandemic

likely spread of the COVID-19 virus, staff was encouraged to familiarize themselves with online communication applications such as GoTo Meeting and Microsoft Teams. Sensitization session on how to access office files using the SMA's secure VPN was also held

Budgetary Proposal for Financial Year 2020/21

For the FY 2020/21, the SMA's approved budget of \$1,157.63M as follows:

- **Capital Expenditure** **\$548.32M**
- **Operating Expenditure** **\$609.31M**

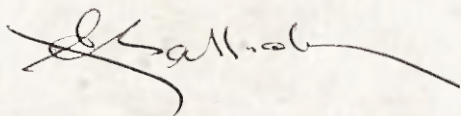
	Target	Key Performance Indicator (KPI)
Projected Income	\$609.58M	80% of Target
Spectrum licence fees to be Collected	\$1,155.43M	80% of Target
Spectrum licence fees to be Remitted	\$1,155.43M	Remit all fees collected up to Feb. 2021 and mobile fees collected in March 2021
Projected Expenditure	\$609.31M	Within Target
No. of licences to be Renewed	471	85% of Target
Number of Interference Cases to be Resolved	All Reported Cases	90% of Target

Table 5 - Summary of Budget Proposal for Financial Year 2020/21

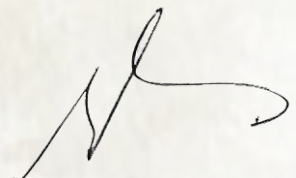
Closing Remarks

Notwithstanding the challenges which negatively impacted the Jamaican economy, the Authority ended the 2019/20 FY with reasonable successes. The pledges to guide the SMA in furtherance of its corporate goal and objectives in line with national and international priorities, while simultaneously encouraging our backbone, our employees, to continue to grow in their various professions. Emphasis will be placed on exploring forward-looking strategies to encourage competitive and efficient markets in the ICT sector.

The Board of Directors takes this opportunity to thank the dedicated management and staff for the strides made during the fiscal year. To our stakeholders, the SMA thank you all for your support and cooperation throughout the year, and looks forward to another productive year of collaboration and improvements. Finally, we thank the team at the MSET for their support, and we look forward to working with the team again in the 2020/21 FY.



Mr. Edward Gabbidon
Board Chairman



Dr. Maria Myers-Hamilton, EdD
Managing Director

DIVISIONAL REPORTS

The SMA's operations are divided along functional lines into five divisions, namely: Spectrum Engineering, Legal Affairs, Policy & Strategic Planning, Finance & Administration and Human Resources. During the FY each division, through their different functional responsibilities, contributed to the SMA's splendid performance for the period. The following represents the highlights of the activities of the Divisions.

SPECTRUM ENGINEERING DIVISION

The Spectrum Engineering Division is focused on the mitigation of interference, frequency and band sharing, and spectrum refarming. The division is staffed by eight (8) persons including seven (7) engineers which are distributed across the following three (3) departments: Band Planning, Inspection & Monitoring, and Operating Systems & Special Projects.

Band Planning Department

The Band Planning Department is responsible for the planning and assignment of frequencies to meet the demands of the existing and emerging technologies and services. The Department assigns frequencies subsequent to detailed technical analyses using state of the art engineering analysis tools and best practices to foster efficient use of the scarce resource of spectrum.

Activities for 2019/20

The Department had a very interesting year, given its integral role in the SMA's preparation for the *World Radio Conference 2019 (WRC-19)* which was held in Sharm el-Sheikh, Egypt, during 28 October to 22 November 2019. Contributions to the recommendations made to the Ministry regarding various Agenda Items were the main input along with offering technical support to the Policy and Strategic Planning Division where necessary. The knowledge gained through the attendance of the WRC-19 was extremely beneficial and offered a new perspective on spectrum management from both technical and regulatory standpoints.

Other initiatives undertaken during the FY include:

- The successful assessment of a major microwave network which has since been deployed without any major frequency conflicts. Through this project, the Department revised its processes and standards which led to improved technical result.
- The completion of the propagation model tuning project that will see the results of technical assessments being improved for the broadcasting service.
- The development of technical operating guidelines for the broadcasting service which will offer added structure to the frequency band.

Forecast for 2020/21

Given the rising popularity of satellite communication technologies around the world, and the advent of 5G technology, the BP department has begun preparing for the proliferation of such services in Jamaica. Among other things, attention will be given to:

- Contributing to the revision process for the Spectrum Pricing Framework, which is intended to foster and encourage competition in the sectors.
- The work of the ITU being undertaken in relation to these services to ensure when such services are introduced in Jamaica. The department will offer technical and regulatory support to ensure all systems adhere to the relevant ITU Regulations.
- The preparation of the relevant frameworks to support the planned Digital Television Switchover.
- Training and development opportunities in the new and emerging technologies such as 5G and Internet of things (IoT).

Monitoring & Inspection Department

The work of Monitoring & Inspection (M&I) Department includes the resolution of interference problems reported by clients, as well as to provide technical support in the identification and investigation of the illegal use of the spectrum. This department also has the core responsibility for the operation and maintenance of the eleven (11) Radio Monitoring and Direction-Finding Systems (RMDFS) which is used, inter alia, for monitoring of the spectrum. Additionally, the M&I department play a vital role regarding the managing and processing of Type Approval applications.

Activities for 2019/20

The RMDFS Sites are critical tools used in spectrum monitoring; therefore having the sites fully operational is the department's chief priority. During the 2019/2020 FY, two (2) of our eleven (11) RMDFS fixed sites were impacted by lightning storm. One site was fully restored, and as at 2020 March 31, the other site is being repaired. In an effect to mitigate against similar strikes, two Early Streamer Lightning Protection Systems were installed at two of the monitoring sites (Albion and Planters Hall) which enhanced the existing lightning protection system already at the sites. The highlights of other functions of the M&I department which were undertaken during the FY include:

- *Frequency Monitoring & Frequency Audits* – The team conducted daily monitoring of the radio frequency spectrum to identify unauthorised use, confirm compliance with licensed conditions and to determine conformity with applicable standards. During the period, eleven (11) spectrum monitoring audits were conducted. These eleven audits spanned a total of nine (9) parishes, namely: Portland, St. Catherine, Kingston and St. Andrew, St. Ann, Clarendon, Westmoreland, Hanover, Manchester and Trelawny and resulted in the detection of eight (8) illegal users during the fiscal year.
- *Interference Investigation* – For the year under review, the M&I department investigated 37

cases of interference reports that were received during the 2019/20 FY. One (1) case was brought forward from the 2018/2019 financial year and three (3) cases were pending as at 2020 March 31. It may be useful to note that these pending cases require collaboration with external entities such as the Ministry of National Security and the Broadcasting Commission. Of the 37 cases reported, 34 were resolved as at 2020 March 31, and were all within their respective resolution times, which represents 100% compliance against the standard **KPI of 90%**.

- *Modulation Meters* – In the third quarter of the FY, the team procured two modulation meters to enhance the SMA's ability to treat with the FM broadcasting stations. These meters are used to test the modulation levels of the FM transmitters to ensure the modulation levels of the transmitters are within the specified limits and will not cause interference in the aeronautical bands.
- *Type Approval* – For the 2019/20 FY, of the 382 type approval applications handled, a total of 356 type approval certifications were granted, and the M&I department contributed by way of conducting the 382 technical assessments required towards the the eventual granting of these certification.

Forecast for 2020/21

The M&I department acknowledges that the radio frequency environment is changing rapidly and becoming more and more complex due to the rapid technology changes and the increasing demand for use of the radio frequency spectrum. Technologies such as 5G will definitely result in the need for additional monitoring tools and adjustment to our monitoring techniques. To this end for the upcoming 2020/21 FY, the department will be focusing on:

- Researching new technologies such as 5G and new monitoring tools available for the technologies.
- Ensuring engineers are properly trained and

equipped with the appropriate tools to be efficient and effective in performing their duties.

- Installing FM modulation meters at selected fixed RMDFS sites to enable remote monitoring of modulation levels of FM broadcasting sites.
- Exploring various options in overcoming the challenges with monitoring of the 5GHz band and frequencies above 6GHz.
- Expansion of SMA's microwave Network.
- Expansion of RMDFS network with the installation and commission of five (5) additional sites.

Operating Systems & Special Projects Department

The main role of the Operating Systems & Special Projects (OSSP) department is to increase the operational efficiencies of the SMA by recommending and implementing appropriate systems and tools to be utilized by the organization. The department also evaluates existing systems to ensure that they are properly utilized and upgraded so as to continue to obtain maximum value in enhancing the functional efficiency and effectiveness of the various departments.

Activities for 2019/20

During the 2019/20 FY, the department was tasked with managing or providing significant input to engineering projects such as:

- The On-Line/Web-Based Licensing System which is expected to revolutionize the way the entity currently interfaces with both its internal and external stakeholders.
- The expansion of the RMDFS Network.
- The ICT Requirements for the Annex Building (located next door at 21-23 Harbour Street).
- RMDFS and ASMS upgrade, working along with the engineers from TCI on resolving system issues as they arise.

- Upgrading the ACCPAC/ASMS interface and working along with the software developers to resolve issues with the system as they arise.

Forecast for 2020/21

In the next FY the OSSP department will continue to work assiduously to advance the works of the SMA's major projects which begun in 2019/20. The On-Line/Web-Based Licensing System is expected to revolutionize the way the entity currently interfaces with both its internal and external stakeholders; the expansion of the RMDFS Network, the implementation of additional monitoring sites and the establishment of a branch office in Montego Bay are the main priorities for 2020/21 FY.



Figure 9 - Mr. Philmore Trowers, Manager Monitoring & Inspection with a Technician, facilitating the installation of new equipment at the new Savannah-La-Mar monitoring site.

Challenges and Mitigation Strategies for the Division

During the 2019/20 FY, the Spectrum Engineering Division was faced with several challenges which adversely affected its output. A few of our projects experienced varying delays due to new procedures introduced into the GOJ procurement system. Consequently these projects were not completed as planned in the FY 19/20 and have been push forward to FY 2020/21. In the months of October 2019 and February 2020 the Division lost two of our seasoned engineers who served in the capacities of Manager and Projects Engineer respectively, both from the Operating Systems and Special Projects Department. Both engineers were integral to - the expansion of our Licensing & Monitoring Systems, the implementation of our Solar System and the implementation of the Licensing/Accounting Middleware solution and many other initiatives.

Nevertheless the Division continues to maintain its focused in an effort to meet its objectives and it is anticipated that attention will be given to the forecasted e-Licensing System, recruitment of additional human resources, as well as the procurement of additional software and equipment to keep the Authority on par with the evolving radio frequency environment.

LEGAL AFFAIRS DIVISION

The Legal Affairs Division (LAD) is responsible for the legal and regulatory portfolio of the SMA. This includes assessing the operations of the SMA and ensuring that all activities are within the framework of the existing legislation. The work of the Legal Division forms a crucial part of the licensing process and interactions with our many clients, existing and proposed, in keeping with the Telecommunications Act and the Access to Information Act. Some of the Division's core functions includes:-

- To provide timely advice on legal implications of all matters,
- Ensure that the SMA meets its compliance obligations,
- Develop recommendations to create the regulatory framework, and

- To ensure that enforcement is carried out in a timely manner.

Activities for 2019/20

During the fiscal year the LAD was involved in, inter alia, Legal, Policy and Regulatory activities. These activities were primarily in support of the Ministry of Science, Energy and Technology (MSET), but forms an important part of the SMA's function as it seeks to fulfil its mandate. The two attorneys comprising the Division have actively and consistently provided the requisite legal support on relevant matters. This ensured that the Authority met its obligations under relevant laws and regulations and also enhanced the SMA's customer service experience. The Division played significant roles in the following activities:

- *Spectrum Management Framework* - Members of the Division participated in the review of the Spectrum Management Framework, which was hosted by the MSET in collaboration with the SMA.
- *Spectrum Pricing Policy* - During the last half of the FY, the Division made marked contributions to the SMA's Pricing Policy, a Consultancy which emanated from the recommendation of the Spectrum Management Framework report. The consultancy is slated for completion within the first quarter of the 2020/21 FY.
- *Amateur Radio Service* - The LAD spearheaded revisions to the Amateur Radio Service operations in Jamaica the drafting of a MOU involving the SMA, Jamaica Amateur Radio Association (JARA) and the Post Master General (PMG), to give effect to the amendments of the Radio and Telegraph Control (Amateur Radio Service) Regulations and the Radio and Telegraph Control (Radio Operators and Technicians) Regulations of 1974. Further to the finalization of the MOU, the LAD also led the development of a licensing framework for amateur radio operations in Jamaica. The Framework document is to regularize the licensing activities for amateur radio operations in Jamaica in-line with international best practice.

Withdrawal of Amateur Radio Licences

Following the creation of the Amateur Radio Service Framework, in 2019 October, the LAD lead a review of Amateur Radio licences previously issued in an effort to confirm whether legislative processes were adhered to. On 2019 October 18, it was noted that there were licences issued which were not in accordance to the law and needed to be withdrawn. On 2019 October 22, a letter was sent to the President of JARA advising of the SMA's decision to vary previously issued licences. The affected licensees were similarly advised on 2019 October 31. Additionally, by letter dated 2019 November 11, the affected individuals were advised of the SMA's decision to vary incorrectly issued licences. Persons who were deemed eligible were issued with the correct licence during the 4th Quarter 2019/2020.

Meetings & Seminars

The LAD played its part in attending several meetings and seminars hosted by the MSET as well as other entities. As required the Division provided legal support by way of advice in relation to spectrum and general technology matters. Some of these meetings were:

- *Whistle-Blower Breakfast Seminar* – hosted by the Jamaica Chamber of Commerce in association with DunnCox held on 2019 December 10.
- *MSET Open Data Policy* – hosted by MSET on 2019 May 24, the Division provided comments on the Open Data Policy as required. Also the Director of Legal Affairs participated at the meeting for the final review of the policy at STATIN, on 2019 June 20.
- *Review of Momentary Penalties under the MSET Portfolio* – hosted by MSET and held on July 23, 2019. At this meeting the Telecommunications Act and Radio and Telegraph Control Act were reviewed.
- *Federal Communications Commission (FCC)* – Mrs. Kadianne Wood, Director Legal Affairs was part of the SMA's delegation which upon the invitation Federal Communication Com-

mission (FCC) met during G5 Symposium held in 2019 October in Montego Bay. The meeting was aimed discussing pressing and important issues surrounding organizational structure, policy and the strengthening of the existing relationship.

Other Achievements of the Division

The Legal Affairs Division continued to play key roles within the daily operations of the SMA and provided consistent support to other divisions and departments. The following are highlights of some of the Division's main achievements for the year 2019/2020:

- The Division provided timely actions needed to minimize outstanding balances of delinquent accounts to sustain the Authority's revenue source. A total of fifty-two (52) clients were referred to the Division during the year with outstanding balances totaling J\$1,663,105.00. Of that sum, J\$1,398,255.00 was collected for the year while the remaining outstanding balances of J\$264,850.00 was treated in accordance with the Collection Policy.
- Legal support was provided towards the processing of two hundred and ninety-seven (297) licences which were received and approved within the FY by the Division. Additionally, during the year, the usual attention was given to the twelve (12) requests for authorizations received and certification granted as required.
- More than sixty (60) contracts were drafted, negotiated and executed in relation to the activities of the Authority during the FY by the Division.
- Due to the influx of illegal transmissions reported during the year, the Division was integral towards the employment of enforcement measures through inspectors gazetted under the Radio and Telegraph Control Act and the Counter-Terrorism and Organized Crime Investigation Branch (C-TOC) to carry out permissible enforcement actions under the law.

The Division's Outlook for 2020/2021

For the upcoming year, the Division is focused on continuing to fulfill its obligations in directing and coordinating the legal activities of the SMA so it may achieve its vision, mission and goals. More importantly, the Division is hopeful for improvements to the Legal and Regulatory Framework by which the SMA is governed to address modern realities.

Additionally, the Division aims to maintain its KPIs, continue to achieve operational efficiencies in all processes and meet targets 95-100% of the time within specified timelines. The Division's Staff will no doubt continue to provide legal support with respect to collection of revenues to safeguard the sustainable source of revenue and ensuring that the SMA meets all its obligations under relevant laws and requirements of regulatory authorities. Further details of the Legal Affairs Division's objectives and outlook for the year 2020/2021 are set out as follows:

- To contribute to the delivery of modern legislation being promulgated to repeal, replace and update the Telecommunications Act and Radio & Telegraph Control Act.
- To contribute to the delivery of modern spectrum management framework with an appropriate and effective spectrum pricing policy.
- To ensure optimization of operating costs through inter alia prudent procurement practice.
- To consistently achieve operational efficiencies in the Division's input in the organizational compliance processes including contractual and statutory obligations of the SMA.
- To continue to develop, revise and update the terms and conditions of Spectrum Licences, Authorizations and Certifications in order to ensure that they are in keeping with international best practices and the policies of the Government.
- To keep abreast of legal trends and new developments which impact the SMA.

- The Division will continue to work closely with the Ministry of Science, Energy and Technology and the Managing Director to make recommendations regarding amendments to legal policies and frameworks.



POLICY AND STRATEGIC PLANNING DIVISION

The Policy & Strategic Planning Division ('the PSPD or 'the Division') has portfolio responsibility to coordinate policy recommendations to the Parent Ministry (MSET) and develops strategic plans in order to ensure the most efficient management of the spectrum as well as facilitates the GoJ receiving a reasonable income from spectrum assignments. The division also facilitates comments and policy recommendations emerging from the SMA or from stakeholders such as the Office of Utilities Regulation (OUR), the Broadcasting Commission of Jamaica, the Fair Trading Commission (FTC), and other local, regional and international bodies.

The PSPD also coordinates the development and production of the Annual Reports, the Corporate Strategic & Operational Plans for the SMA, as well as monitor and report on the SMA's performance. The latter involves a review of performance of internal divisions and matching performance against key performance indicators and making recommendations in collaboration with the divisions of any changes for improvements to the status quo. Additionally, the division plays the lead role in



From Left to Right: Mr. Chris Dehring, CEO Ready TV, Mr. Lyndel McDonald, Manager Telecommunication Systems and Mr. Patrick Brown, Director Finance & Administration at the SMA's G5 Symposium held in Montego Bay.

researching industry trends in ICT and provides recommendations on policies, plans and strategies in accordance with local and international best practices that informs and guides the effective management of the spectrum.

Activities for 2019/20

During the 2019/20 FY, the Division facilitated the development of the SMA's Corporate Strategic & Operational plan for the period 2020/21-2023/2024.

In addition, the Division was able to, on behalf of the SMA, fulfil the requirements of the Public Body Management and Accountability Act, by developing the 2018/19 Annual Report, before the slated deadline of 2019 July 31. Further, the Division was involved in the following activities:

- *ITSO Advisory Committee (IAC) Meeting* – A member of the Division participated at the 22nd Meeting of the ITSO Advisory Committee held in Washington DC held May 30-31, 2019, as a member of the Jamaican delegation. This was a preparatory meeting for the 39th Ordinary Meeting of the Assembly of Parties that would follow.
- *CITEL PCC II Meeting* – During the year, a representative from the Division was a part of the SMA's team that represented Jamaica at the 34th Meeting of the CITEL PCC II meeting held in Ottawa, Ontario, Canada for the period August 12 – 16, 2019. The meeting was primarily to contribute to the finalization of the Inter-American proposals for submission to the ITU.
- *World Radio Conference 2019 (WRC-19)* – The team from the SMA at the WRC-19 also featured a representative from the Division. The conference was held in Sharm el-Sheikh, Egypt, during 28 October to 22 November 2019.
- *5G Public Forum* – During 2020 February, a member of the Division was instrumental in ensuring that the SMA was effectively represented at a 5G Public Forum entitled: "For Better or Worse? The Pros and Cons of 5G". The Forum was hosted by the Mona School of Business & Management (MSBM).
- *Preparation of Reports* – The Division throughout the FY, continued to facilitate the SMA's compliance in relation to statutory requirements, ensuring the submission of required reports to include, quarterly and half-yearly reports, and Ministry Paper.
- *Open Data Policy* – At the invitation of the MSET, on 2019 May 24, the PSPD provided comments on the Open Data Policy as required. The division was part of the SMA's team which also participated at the meeting for the final review of the policy at STATIN, on June 20, 2019.



Figure 10 - Mr. Lyndel McDonald, Manager, Telecommunications Systems making a presentation at the 5G Public Forum at the MSBM in February 2020. Seated in the front row are Mr. Stephen Price, Country Manager of FLOW (middle) and to his left, Mr. Rohan Pottinger, Chief Technical Officer of Digicel Group

Outlook for the 2020/21 Fiscal Year

The Policy & Strategic Planning Division anticipates a successful 2020/21 fiscal year and pledged to keep itself abreast of any changes in the corporate environment. The Division's focus for the 2020/21 fiscal year will be to:

- Continue to align its efforts in tandem with Jamaica's Vision 2030 Plan and the mission of the SMA.
- Prepare the respective reports for the FY 2019/20 (monthly, quarterly, half yearly, third quarter and Ministry Paper) to comply with the requirements of the Public Bodies Management and Accountability Act and making presentations as required.
- Spearhead the preparation of the Corporate Strategic and Operational Plan covering the period 2021/22 to 2024/25 and submit same to the MSET accordingly.
- Continue in its thrust to research, review and make recommendations on policies and procedures in accordance with the best practices/standards on a needs basis.
- Represent the SMA and Jamaica at regional and international meetings.

- Evaluate and control performance targets through monitoring, review and intervention.
- Report on and make recommendations regarding any changes or deviations from the expected norm or what obtains.

FINANCE AND ADMINISTRATION DIVISION

The Finance & Administration Division is responsible for providing the SMA with all the financial and administrative support required to process new applications and renew licences, bill and collect all fees from licensees, manage all financial transactions, and prepare all financial statements and reports. The Division oversees the preparation of the budget for the SMA and ensures that the SMA adheres to the Government of Jamaica's statutory, financial and fiduciary obligations.

Licensing and Administration Department

The work of the Licensing and Administration Department includes the timely processing of new applications for licences, timely dispatch of renewal notifications to existing licensees, timely processing of renewed licences, processing of Customs Clearance and Customs Detention notices, and provide assistance to the Spectrum Engineering

Division regarding the timely processing of Type Approval Certifications. The department also manages the repair and maintenance of the company's facilities which include the building, equipment, furniture, and fleet of vehicles. The department also manages and administers the maintenance contracts to include services such as security, janitorial, sanitation, pest control, air conditioning, drain cleaning, and solar equipment located on SMA's building rooftop. The department also tracks the usage of utilities to include light and water, ensuring that the monthly billings properly reflect the company's usage. The department has initiated several projects, some of which are still ongoing, to include (i) refurbishing of the Annex (ii) off-site and on-site storage of data, documents, and any unused assets (iii) procurement of a new pickup and a new 14 seater bus (iv) construction of a boundary wall and a new guard house (v) procurement of a generator for the office building, and (vi) extension of the current bathroom facilities.

Activities for 2019/20

During the 2019/20 FY, the Licensing and Administration Department played the leading role in the management and processing of all new licence applications received by the SMA. Its contribution greatly assisted in the 288 new licence applications handled for processing during the year, of which 263 or 91% of applications were approved for the grant of a licence. Of the 263 new applications granted, 259 or 98% were processed within the standard time, which is above the KPI of 80% for this category. With regards to renewal of existing licences, out of a total of 479 that were targeted for renewal during the FY, the department achieved a renewal rate of 439 or 92%, which performance exceeded the KPI of 85%. Additionally, out of the total of 439 licences renewed, 438 were processed within the standard time resulting in a performance rate of 99.8%, which is above the KPI of 90%.

Procurement Department

The Procurement Department commenced operation at the beginning of the FY, as its functions were previously carried out under the Licensing and Administration department. The department administers the procurement functions of the company in compliance

with the law, and is therefore responsible for executing all purchase requirements of goods and services for the company. The company seeks to balance efficiency in the procurement process and adherence with the legal requirements for procurement, ensuring that all allowable variations in the process are properly documented and written justifications are included where necessary. The department seeks to ensure that where necessary, the requisite contracts are in place to reflect the complexity of any specific procurement for which it works closely with the Legal Division.

The Department also ensures that purchase orders are issued for all procurements and/or purchases, whether or not a formal contract is in place, and that purchase orders are approved in keeping with the company's approval policy for expenditure, bearing in mind that all contracts are to be signed by the Managing director on behalf of the company. The department also provides the effective liaison with existing and prospective suppliers and/or contractors for all procurement opportunities, wherein those of material values are listed in GOJ's Electronic Procurement (GoJep) website and made available for participation by the public.

Supporting the Procurement Department's functions are the Tender Opening Committee, the Evaluation Committee and the Procurement Committee, with the stipulated requirement that the company's designated "Procurement Officer" i.e. the head of the Procurement department, attends all such meetings either to make observations of the meetings' proceedings or to provide guidance to the process, and to receive for filing all related documents for each procurement opportunity. During the year, the department issued 699 purchase orders totalling J\$155.46 Million and US\$ 307.88.

Accounts and Finance Department

The work of the Accounts and Finance Department includes the proper management of funds within the company to include collection, disbursement and investment of excess fund. The department's work also includes processing and monitoring the expenditure of funds in adherence to the company's budgeted projections for both operational and capital expenditure.

Activities for 2019/20

During the FY, the Department remained vigilant in ensuring that the SMA remained financially viable and compliant with GOJ's laws. During the year, salaries and wages were paid on time each month, suppliers' and contractors' liabilities were generally settled within a 30 day period from receipt of invoices or claims, and all salary related statutory deductions and other government taxes and fees were settled within the stipulated time in compliance with the law.

The Department effectively administered the collection of \$1.637 Billion in Spectrum Licence fees on behalf of the GOJ which represents \$558.43 Million or 52% in excess of the targeted KPI collection of \$1.079 Billion for the year. The Department also administered the remittance of \$1.674 Billion to the Consolidated Fund via Tax Administration of Jamaica, which amount represents \$325.34 Million or 24% above the targeted KPI of \$1.349 Billion. The Department recognises the vital contribution it made towards the achievement of all KPI targets during the year. This contribution culminates in the successful finalisation of the company's annual audits for its financial statements and its Key Performance Indicators (KPI) report.

Forecast for the Division for 2020/21

The F&A Division acknowledges that the radio frequency environment is changing rapidly and is becoming more and more complex due to the rapid changes in technology and the increasing demand for technology related service. The division's response can be accomplished more effectively and efficiently with the acquisition of new and "fit for purpose" technology to realize this objective.

Challenges and Mitigation Strategies for the Division

During the 2019/20 FY, the F&A Division on a whole faced several challenges which could have adversely affected its delivery of final reports. Foremost of these challenges is the reliability of network services for which any interruption tends to have a crippling effect in the processing of transactions. The division looks forward to having a more reliable and robust service during the subsequent year.

HUMAN RESOURCE & OFFICE SERVICES

The Human Resources Department is responsible for the human resources portfolio of the SMA. This involves formulating strategies to ensure that employees' potential at the SMA are maximised. This department is also responsible for performance management, training, employee benefits and all matters related to staff welfare and development. In addition, the department oversees the SMA's public relations and communication; and plays the leading role in the organization of events for the SMA.

Given the nature of the radio frequency environment, for FY 2019/20, the department was mostly focused on ensuring the development and retention of the key skills and competencies which are required to meet the changing needs of the Authority as staff participated in training sessions, conferences and meetings both locally and internationally. It may be useful to note that the Authority was pleased to have represented Jamaica at several international meetings and conferences during the 2019/20 FY, such as those hosted by the International Telecommunications Union (ITU) and the Caribbean Telecommunications Union (CTU).

Careful attention was also given to address job enrichment needs of the employees to create job satisfaction and aid in staff retention as one (1) employee was seconded to another agency and five (5) members of staff were promoted to vacancies in the Authority. The "new" Procurement Unit was established and staffed by 4 persons as approved by the Ministry of Finance. Additionally, 8 positions which became vacant were filled during the year. Further, the staff participated in an Employee Engagement Survey conducted during the year and a consultant was engaged to conduct an Organizational Assessment to include a workforce analysis and job evaluation exercises. The details of these and other activities spearheaded by the Human Resources Department are detailed below.

Separation & Recruitment

Based on the efforts of the HR department the SMA was able to complete the fiscal year with a staff complement of 38 (12 permanent and 26 contract employees) which represents approximately 83% of

the approved establishment of forty-five (45) posts. It may be important to note that Contract Employees occupy posts on the SMA's establishment and employed on 2 year fixed term renewable contracts. For the fiscal year under review, the HR department was able to welcome on board ten (10) persons to the SMA team, who assumed office mainly during the second half of the fiscal year:

- Administrative Assistant, *Legal Affairs* – Keisha Hazel Brown.
- Legal Officer, *Legal Affairs* – Shyvonne Osbourne Perry
- Procurement Administrator, *Finance & Administration* – Shana Kay Brown
- Receptionist, *Human Resources* – Sandra Latouche
- Telecommunications Engineer, *Spectrum Engineering* – Rasean Martin
- Director, Public Procurement, *Finance & Administration* – Claude Stewart
- Senior Public Procurement Officer, *Finance & Administration* – Iesha Pyne
- Procurement Officer, *Finance & Administration* – Kadia Lawes Wright
- Human Resources Officer, *Human Resources* – Jheanelle Hemmings
- Manager, Policy & Strategic Planning, *Policy & Strategic Planning Division* – Jamaro Marville
- Manager, Operating Systems & Special Projects, *Spectrum Engineering Division* – Yishka Trusty

Implementation of New Procurement Unit

Based on a directive from the Ministry of Finance & Public Service, received in March 2019, requiring all Public Bodies to establish a Procurement Unit, the HR

Department embarked on a drive to establish a Procurement Unit. The Ministry of Finance had given approval for the Unit to be staffed by four (4) persons. The positions in the unit are: Director, Public Procurement; Senior Procurement Officer; Procurement Officer and Procurement Administrator. As at the end of 2020 February, all four posts were filled.

Notable separations during the course of the fiscal year, was:

- Internal Auditor, *Office of the Managing Director* – Kamla Farquharson
- Accounts Payables Officer, *Finance & Administration* – Lathoya Wright Brown
- Manager, Information Technology - *Office of the Managing Director* – Joseph Biggs
- Telecommunications Engineer, *Spectrum Engineering* – Carlos Griffith
- Manager, Operating Systems & Special Projects, *Spectrum Engineering* – Clifton Hills
- Office Attendant, *Human Resources* – Ms. Evlet Smith

The Department utilizes this opportunity to thank them all for their contribution during their tenure, over the years, and wishes them the best in their new endeavours. In particular, the Authority acknowledged the eighteen (18) years of exemplary service rendered by Ms. Evelet Smith in her capacity as Office Attendant. She went off on her retirement on 2019 July 28. In 2019, the Manager, Operating Systems and Special Projects Mr. Clifton Hills, passed away in October 2019. The Board of Directors, the SMA's staff as well as several international suppliers who interacted with Mr. Hills, paid tributes at his Thanksgiving Service.

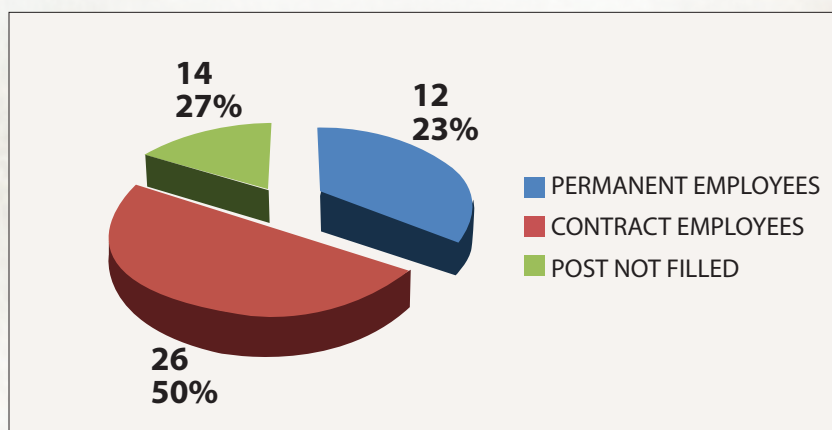


Chart 1 – Staff Complement as at the end of 2019/20 FY

It may be important to note that Contract Employees occupy posts on the SMA's establishment and employed on 2 year fixed term renewable contracts.

Training and Development

In keeping with its portfolio, the HR Department provided all levels of staff with the opportunity to expand their knowledge and stay informed on the latest developments in the communication sector. By and large, the various courses and training sessions pursued represent a good blend of both technical and support disciplines which were delivered by seasoned independent industry experts. The table below highlights some primary opportunities which the department arranged for staff during the fiscal year.

The department acknowledges that if regulated organizations do not ensure the proper training of employees, then managing performance targets may become increasingly problematic. In particular, our engineers through various specialist training courses have received a depth of insight into some of the most critical issues in the field of spectrum management and the knowledge and skills gathered will enable them to make the day-to-day decision required of them in an increasingly complex, yet integrated industry.

PROFESSIONAL DEVELOPMENT AND TRAINING
5G and a Connected World
Amazon Web Services Seminar
CCNA Routing & Switching, Latest & Emerging Technology Trends
CTU Spectrum Management Task Force Meeting
Defibrillator Training Session
Fixed Asset Training
Fortinet NSE Training – FortiGate Security, FortiGate Infrastructure
Government Accounting Level 1 Module 2
HR Analytics for Strategic Decision-Making
INPRI International Procurement Institute Certificate Level 4
Introduction to Radio Spectrum Monitoring & Measuring
Jamaica National Agency for Accreditation (JANAAC) – ISO/IEC 17025:2017
Leadership Workshop
Mastery in Applying Project Management
Mastery In Project Management
Ministry of Finance GoJep
MyHr+ Employee Self Service Training
MyHR+ Phase Two Sensitization Workshop
Post Graduate Certification for Chartered Secretary
Practical Applications of Spectrum Management & Spectrum Monitoring
Principles and Practices of RF Monitoring and Inspection
Risk Analysis & Management Course
Team Building Session
The Security Fabric Experience
Whistleblower Seminar- Hosted by the Jamaica Chamber of Commerce

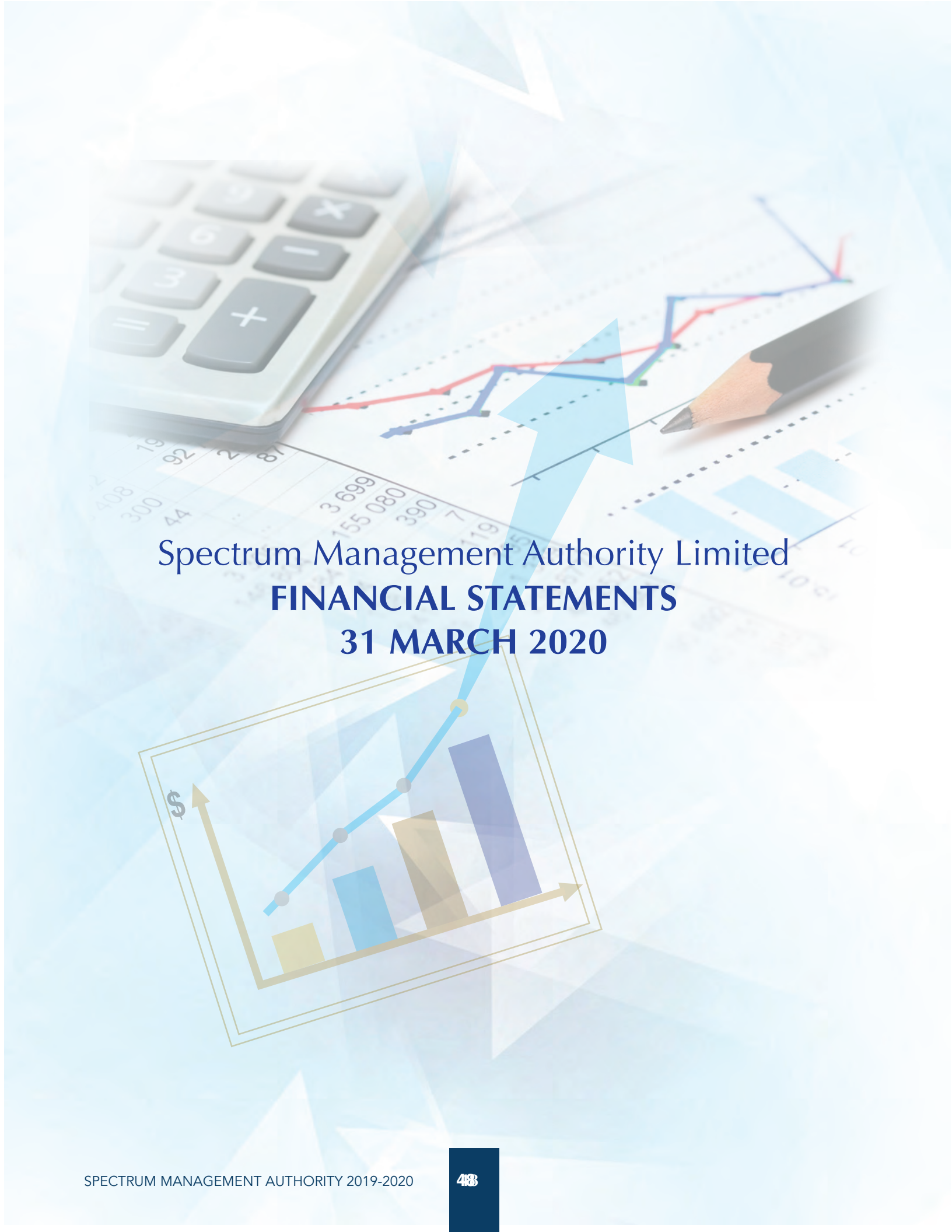
Table 6 – Primary Courses/Training Activities – 2019/20 FY

**SPECTRUM MANAGEMENT AUTHORITY
BOARD OF DIRECTORS' COMPENSATION**

Position of Director	Board		Committees		Fees	Travelling Allowance or Value of Assigned Motor Vehicle	Honoraria	Compensation including Non-Cash Benefits as applicable	Total
	Chairman	Member	Chairman	Member					
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Edward Gabbidon - Chairman	166,500		-	27,750	194,250	32,508			226,758
Delroy Thompson		99,000		77,700	176,700	33,516			210,216
Marsha Haughton		66,000	74,500	-	140,000	-			140,000
Marcia Forbes		88,000	-	22,200	110,200	-			110,200
Rochelle Cameron		77,000	-	33,300	110,300	-			110,300
Vaughn McDonald		99,000	55,500	33,300	187,800	31,185			218,985
Marlon Morgan		99,000	-	44,400	143,400	46,935			190,335
Kaydian Smith Newton		88,000	-	55,500	143,500	25,992			169,492
Dalton Yap		77,000	-	61,050	138,050	212,668			350,718
Claude Petgrave		88,000	55,500	-	143,500	52,038			195,538
Robert Richards		55,000	37,000	16,650	108,650	26,838			135,488
Rohan Townsend		-	-	38,850	38,850	-			38,850
Camille facey		88,000	-	33,300	121,300	25,704			147,004
Total	166,500	924,000	222,000	444,000	1,756,500	487,384	-	-	2,243,884

SPECTRUM MANAGEMENT AUTHORITY									
SENIOR EXECUTIVES/KEY MANAGEMENT COMPENSATION									
Position of Senior Executive/ Key Management	Salary	Gratuity or Performance Incentive	Travelling Allowance or Value of Assigned Motor Vehicle	Pension or Other Retirement Benefits	Other Allowances	Total Remuneration	Non-Cash Benefits	Total	
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Maria Myers-Hamilton Managing Director	7,810,803	4,307,541	1,697,148	-	795,813	14,611,305	-	14,611,305	
Henry Batson Director - Spectrum Engineering	6,271,122	-	1,697,148	-	1,123,852	9,092,122	-	9,092,122	
Patrick Brown Director - Finance & Administration	4,982,058	1,588,933	1,697,148	-	1,155,052	9,423,191	-	9,423,191	
Kadianne Wood Director - Legal Affairs	4,780,391	38,483	1,673,889	-	593,437	7,086,210	-	7,086,210	
George Malcolm Director - Policy & Strategic Planning	4,982,058	1,465,076	1,697,148	-	474,889	8,619,171	-	8,619,171	
Dawn Staple Manager - Human Resources	2,743,269	131,520	894,924		396,611	4,166,324	-	4,166,324	
Total	31,569,701	7,531,553	9,357,415	-	4,539,654	52,998,323	-	52,998,323	

NB: The Human Resources Officer was appointed to the post of Manager, Human resources as July 15, 2019.



Spectrum Management Authority Limited
FINANCIAL STATEMENTS
31 MARCH 2020



SPECTRUM MANAGEMENT AUTHORITY LIMITED

FINANCIAL STATEMENTS

31 MARCH 2020

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INDEPENDENT AUDITORS' REPORT

To the Members of
SPECTRUM MANAGEMENT AUTHORITY LIMITED

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Spectrum Management Authority Limited ("the company"), set out on pages 4 to 39, which comprise the statement of financial position as at March 31, 2020, statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the company as at March 31, 2020, and of its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and the Jamaican Companies Act.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the company in accordance with the International Ethics Standards Board for Accountants Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KPMG, a Jamaican partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

R. Tarun Handa	Nigel R. Chambers	Wilbert A. Spence
Cynthia L. Lawrence	Nyssa A. Johnson	Rochelle N. Stephenson
Rajan Trehan	W. Gihan C. de Mel	Sandra A. Edwards
Norman O. Rainford		



INDEPENDENT AUDITORS' REPORT (CONTINUED)

To the Members of
SPECTRUM MANAGEMENT AUTHORITY LIMITED

Report on the Audit of the Financial Statements (Continued)

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with IFRS and the Jamaican Companies Act, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the company's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.



INDEPENDENT AUDITORS' REPORT (CONTINUED)

To the Members of
SPECTRUM MANAGEMENT AUTHORITY LIMITED

Report on the Audit of the Financial Statements (Continued)

Auditors' Responsibilities for the Audit of the Financial Statements (Cont'd)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on additional matters as required by the Jamaican Companies Act

We have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of our audit.

In our opinion, proper accounting records have been maintained, so far as appears from our examination of those records, and the financial statements, which are in agreement therewith, give the information required by the Jamaican Companies Act in the manner required.

KPMG

Chartered Accountants
Kingston, Jamaica

June 30, 2020

SPECTRUM MANAGEMENT AUTHORITY LIMITED
STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
YEAR ENDED 31 MARCH 2020

	<u>Note</u>	<u>2020</u> \$	<u>2019</u> \$
Revenue	6(a)	464,571,940	389,531,250
Operating expenses	7(a)	<u>(420,770,913)</u>	<u>(354,329,627)</u>
Operating profit		43,801,027	35,201,623
Other income, net	6(b)	<u>22,800,803</u>	<u>8,286,039</u>
Profit, being total comprehensive income for the year	8	<u>66,601,830</u>	<u>43,487,662</u>

The notes on pages 8 to 39 are an integral part of these financial statements.

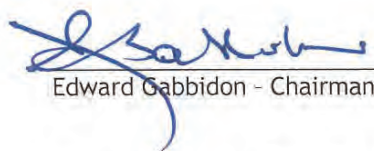
SPECTRUM MANAGEMENT AUTHORITY LIMITED

STATEMENT OF FINANCIAL POSITION

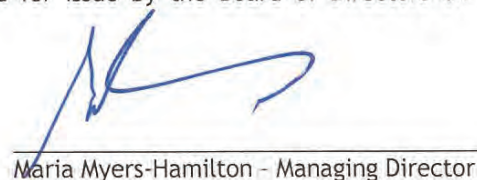
31 MARCH 2020

	<u>Note</u>	<u>2020</u> \$	<u>2019</u> \$
ASSETS			
Non-current assets:			
Property, plant and equipment	9	505,147,967	482,794,646
Intangible assets	10	7,805,042	10,489,096
Right-of-use assets	11	<u>45,940,122</u>	<u>-</u>
Total non-current assets		<u>558,893,131</u>	<u>493,283,742</u>
Current assets:			
Receivables	12	74,938,256	11,968,055
Taxation recoverable	13	17,183,152	13,025,982
Resale agreements	14	749,095,618	711,948,326
Cash and cash equivalents	15	<u>255,836,135</u>	<u>292,605,463</u>
Total current assets		<u>1,097,053,161</u>	<u>1,029,547,826</u>
Total assets		<u>1,655,946,292</u>	<u>1,522,831,568</u>
EQUITY AND LIABILITIES			
Capital and reserves:			
Share capital	16	20	20
Contributed capital	17	144,700,366	144,700,366
Retained earnings		<u>686,038,920</u>	<u>619,437,090</u>
Total capital and reserves		<u>830,739,306</u>	<u>764,137,476</u>
Non-current liabilities:			
Lease liabilities	11	44,758,329	-
Deferred capital grant	18	<u>325,000,000</u>	<u>325,000,000</u>
Total non-current liabilities		<u>369,758,329</u>	<u>325,000,000</u>
Current liabilities:			
Payables	19	278,328,174	306,150,352
Deferred income	20	170,774,163	127,543,740
Lease liabilities	11	<u>6,346,320</u>	<u>-</u>
Total current liabilities		<u>455,448,657</u>	<u>433,694,092</u>
Total equity and liabilities		<u>1,655,946,292</u>	<u>1,522,831,568</u>

The financial statements on pages 4 to 39 were approved for issue by the Board of Directors on June 30, 2020 and signed on its behalf by:



Edward Gabbidon - Chairman



Maria Myers-Hamilton - Managing Director

The notes on pages 8 to 39 are an integral part of these financial statements.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

STATEMENT OF CHANGES IN EQUITY

YEAR ENDED 31 MARCH 2020

	Share Capital \$ (Note 16)	Contributed Capital \$ (Note 17)	Retained Earnings \$	Total \$
Balances at 31 March 2018	20	144,700,366	575,949,428	720,649,814
Total comprehensive income	-	-	<u>43,487,662</u>	<u>43,487,662</u>
Balances at 31 March 2019	20	144,700,366	619,437,090	764,137,476
Total comprehensive income	-	-	<u>66,601,830</u>	<u>66,601,830</u>
Balances at 31 March 2020	<u>20</u>	<u>144,700,366</u>	<u>686,038,920</u>	<u>830,739,306</u>

The notes on pages 8 to 39 are an integral part of these financial statements.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

STATEMENT OF CASH FLOWS

YEAR ENDED 31 MARCH 2020

	<u>Note</u>	<u>2020</u> \$	<u>2019</u> \$
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net profit for the year		66,601,830	43,487,662
Adjustments for:			
Depreciation & amortisation	7(a)	77,663,999	61,287,466
Impairment losses recovered	12	(411,651)	(523,912)
Interest income	6(b)	(16,529,095)	(9,691,436)
Interest implicit in leases	11	4,362,963	-
Translation loss on lease liabilities		<u>1,049,344</u>	<u>-</u>
Operating cash flows before movements in working capital		132,737,390	94,559,780
Change in operating assets and liabilities:			
Receivables		(62,736,286)	27,670,647
Taxation recoverable		(4,157,170)	(2,348,682)
Deferred income		43,230,423	23,082,773
Payables (excluding spectrum licence fees)		<u>8,851,946</u>	<u>821,929</u>
		117,926,303	143,786,447
Interest received		16,678,649	9,394,719
Spectrum licence fees received	19	1,637,448,874	1,134,245,889
Spectrum licence fees paid	19	<u>(1,674,122,998)</u>	<u>(1,146,307,999)</u>
Net cash provided by operating activities		<u>97,930,828</u>	<u>141,119,056</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Net increase in resale agreements		(37,119,110)	(419,960,939)
Acquisition of property, plant and equipment	9	(89,711,978)	(54,048,695)
Acquisition of intangible assets	10	<u>(1,659,722)</u>	<u>(4,692,538)</u>
Net cash used in investing activities		<u>(128,490,810)</u>	<u>(478,702,172)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payment of lease liabilities	11	(6,209,346)	-
Proceeds from capital grant		<u>-</u>	<u>325,000,000</u>
Net cash (used in)/provided by financing activities		<u>(6,209,346)</u>	<u>325,000,000</u>
Net decrease in cash and cash equivalents		(36,769,328)	(12,583,116)
Cash and cash equivalents at beginning of year		<u>292,605,463</u>	<u>305,188,579</u>
Cash and cash equivalents at end of year	15	<u><u>255,836,135</u></u>	<u><u>292,605,463</u></u>

The notes on pages 8 to 39 are an integral part of these financial statements.

SPECTRUM MANAGEMENT AUTHORITY LIMITED**NOTES TO THE FINANCIAL STATEMENTS****31 MARCH 2020****1. IDENTIFICATION AND PRINCIPAL ACTIVITIES**

Spectrum Management Authority Limited (the company) is a limited liability company incorporated and domiciled in Jamaica. It is wholly owned by the Government of Jamaica and is an agency within the Information and Communication Technology (ICT) Portfolio of the Ministry of Science, Energy and Technology. The registered office of the company is located at 13-19 Harbour Street, Kingston.

The principal activity of the company is the efficient management of Jamaica's electromagnetic spectrum in the interest of national, technological, economic and social development.

Tax Administration Jamaica by letter dated February 15, 2018, confirmed that the company is exempt from paying income tax under section 12(b) of the Income Tax Act.

2. STATEMENT OF COMPLIANCE AND BASIS OF PREPARATION**(a) Statement of compliance**

The financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) and their interpretations issued by the International Accounting Standards Board and comply with the Jamaican Companies Act.

The Company applied IFRS 16 *Leases* with the date of initial application of April 1, 2019. A number of other standards and interpretations are effective from April 1, 2019 but they do not have a material effect on the Company's financial statements. Changes to significant accounting policies are described in note 3.

New and amended standards and interpretations issued but not yet effective:

Certain new and amended standards and interpretation have been issued, which are not yet effective for the current year and which the company has not early adopted. The company has assessed them and determined the following are relevant:

- Amendment to IAS 1, *Presentation of Financial Statements* and IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors* is effective for annual periods beginning on or after January 1, 2020, and provides a definition of 'material' to guide preparers of financial statements in making judgements about information to be included in financial statements.

"Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity."

The company does not expect the amendment to have a significant impact on its 2021 financial statements.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

2. STATEMENT OF COMPLIANCE AND BASIS OF PREPARATION (CONT'D)

(a) Statement of compliance (cont'd)

New and amended standards that are not yet effective (cont'd):

- Amendments to *References to Conceptual Framework in IFRS Standards* is effective retrospectively for annual reporting periods beginning on or after January 1, 2020. The revised framework covers all aspects of standard setting including the objective of financial reporting.

The main change relates to how and when assets and liabilities are recognised and de-recognised in the financial statements.

- New 'bundle of rights' approach to assets will mean that an entity may recognise a right to use an asset rather than the asset itself;
- A liability will be recognised if a company has no practical ability to avoid it. This may bring liabilities on balance sheet earlier than at present.
- A new control-based approach to de-recognition will allow an entity to derecognize an asset when it loses control over all or part of it; the focus will no longer be on the transfer of risks and rewards.

The company is assessing the impact that the amendments will have on its 2021 financial statements.

(b) Basis of preparation

The financial statements are prepared under the historical cost basis.

(c) Reporting currency

The financial statements as of and for the year ended 31 March 2020 (reporting date), are presented in Jamaica dollars which is the company's functional currency.

(d) Use of estimates and judgements

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the company's accounting policies.

The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are discussed below:

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

2. STATEMENT OF COMPLIANCE AND BASIS OF PREPARATION (CONT'D)

(d) Use of estimates and judgements (cont'd)

(i) Allowance for impairment losses on receivables

Allowances for doubtful accounts are determined upon origination of the trade accounts receivable based on a model that calculates the expected credit loss ("ECL") on trade accounts receivable.

Under the ECL model, the company analyses its accounts receivable in a matrix by days past due and determined for each age bracket an average rate of ECL, considering actual credit loss experience and analysis of future delinquency, that is applied to the balance of the accounts receivable.

(ii) Expected useful life and residual value of property, plant and equipment

The expected useful life and residual value of an asset are reviewed, at least, at each reporting date. Useful life of an asset is defined in terms of the asset's expected utility to the company.

(e) Comparative information

When necessary, prior year comparatives have been reclassified to conform to current year's presentation.

3. CHANGES IN ACCOUNTING POLICIES

The company has initially adopted IFRS 16 Leases from April 1, 2019. Other new standards were also effective from April 1, 2019 but they do not have a material effect on the company's financial statements.

New and amended standard issued that became effective during the year.

(a) IFRS 16 Implementation

The company applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognised at April 1, 2019.

SPECTRUM MANAGEMENT AUTHORITY LIMITED**NOTES TO THE FINANCIAL STATEMENTS****31 MARCH 2020****3. CHANGES IN ACCOUNTING POLICIES (CONT'D)****(a) IFRS 16 Implementation (cont'd)**

Accordingly, the comparative information presented for 2019 is not restated - i.e. it is presented, as previously reported, under IAS 17 and related interpretations. The details of the changes in accounting policies are disclosed below.

(i) Definition of a lease

Previously, the company determined at contract inception whether an arrangement was or contained a lease under IFRIC 4. The company now assesses whether a contract is or contains a lease based on the definition of a lease under IFRS 16, as explained in note 4 (m) Leases.

On transition to IFRS 16, the company elected to apply the practical expedient to grandfather the assessment of which transactions are leases. The company applied IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed for whether there is a lease under IFRS 16.

(ii) As a lessee

The company previously classified leases as operating or finance leases based on its assessment of whether the lease transferred significantly all of the risks and rewards of ownership of the underlying asset to the company. Under IFRS 16, the company recognises right-of-use assets and lease liabilities as discussed further below.

At commencement or on modification of a contract that contains multiple lease components, the company allocates the consideration in the contract to each lease component on the basis of its relative stand-alone price.

However, for leases of property the company has elected not to separate non-lease components and account for the lease and associated non-lease components as a single lease component.

Lease classification

Previously, the company classified property leases as operating leases under IAS 17. On transition, for these leases, lease liabilities were measured at the present value of the remaining lease payments, discounted at the company's incremental borrowing rate as at 1 April 2019.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

3. CHANGES IN ACCOUNTING POLICIES (CONT'D)

(a) IFRS 16 Implementation (cont'd)

(ii) As a lessee (cont'd)

Lease classification (cont'd)

The company used a number of practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17. In particular, the company:

- did not recognise right-of-use assets and liabilities for leases for which the lease term ends within 12 months of the date of initial application;
- did not recognise right-of-use assets and liabilities for leases of low value assets;
- excluded initial direct costs from the measurement of the right-of-use asset at the date of initial application; and
- used hindsight when determining the lease term.

Accounting policy is detailed in note 4 (m).

(iii) Impact on financial statements

Impact on transition

On transition to IFRS 16, the company recognised right-of-use assets and lease liabilities. The impact on transition is summarised below.

	1 April 2019 \$
Right-of-use assets - properties	48,297,762
Lease liabilities	<u>(48,297,762)</u>
	<u>-</u>

For the impact of IFRS 16 on profit or loss for the period, see note 11. For the details of accounting policies under IFRS 16 and IAS 17, see note 4 (m).

When measuring lease liabilities for leases that were classified as operating leases, the company discounted lease payments using its incremental borrowing rate at 1 April 2019. The weighted average rate applied is 10%.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

3. CHANGES IN ACCOUNTING POLICIES (CONT'D)

(a) IFRS 16 Implementation (cont'd)

(iii) Impact on financial statements (cont'd)

Impact on transition (cont'd)

1 April

2019

\$

Operating lease commitments at 31 March 2019 as disclosed under IAS 17 in the company's financial statements	<u>36,992,226</u>
Discounted using the incremental borrowing rate at 1 April, 2019	20,655,006
IFRS16 Lease liabilities recognised as at 1 April 2019, extension options reasonably certain to be exercised	<u>27,642,756</u>
Total lease liabilities recognised at 1 April 2019	<u>48,297,762</u>

4. SIGNIFICANT ACCOUNTING POLICIES

(a) Foreign currency translation

Transactions in foreign currencies are converted at the exchange rates prevailing at the dates of the transactions. At the reporting date, monetary assets and liabilities denominated in foreign currency are translated using the exchange rates ruling at that date. Exchange differences arising from the settlement of transactions at rates different from those at the dates of the transactions and unrealised exchange differences on unsettled foreign currency monetary assets and liabilities are recognised in profit or loss.

(b) Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets

Initial recognition and measurement

The financial assets that meet both of the following conditions and are not designated as at fair value through profit or loss: a) are held within a business model whose objective is to hold assets to collect contractual cash flows, and b) whose contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are classified as "Held to collect" and measured at amortised cost.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(b) Financial instruments (cont'd)

Financial assets (cont'd)

Initial recognition and measurement (cont'd)

Amortised cost represents the net present value ("NPV") of the consideration receivable or payable as of the transaction date. This classification of financial assets comprises the following captions:

- Cash and cash equivalents
- Accounts receivable
- Resale agreements

Due to their short-term nature, the company initially recognises these assets at the original invoiced or transaction amount less expected credit losses.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as described in the particular recognition methods disclosed in their individual policy statements associated with each item.

Derecognition

A financial asset is primarily derecognised when the rights to receive cash flows from the asset have expired, or the company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the company has transferred substantially all the risks and rewards of the asset, or (b) the company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Financial liabilities

Initial recognition and measurement

All financial liabilities are recognised initially at fair value and in the case of loans and borrowings, plus directly attributable transaction costs. The company's financial liabilities, which include accounts payable and amounts due to related entities, are recognised initially at fair value.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(b) Financial instruments (cont'd)

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, with the difference in the respective carrying amounts recognised in the income statement.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

(c) Property, plant and equipment

All property, plant and equipment are stated at historical cost, less accumulated depreciation and impairment losses, if any.

Depreciation is recognised in profit or loss on the straight-line basis at annual rates to write down the assets to their estimated residual values at the end of their expected useful lives, as follows:

Building	2.5%
Leasehold improvements	10%
Monitoring and office equipment	5% - 20%
Furniture and fixtures	10%
Computers	33 $\frac{1}{3}$ %
Motor vehicles	20%

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(d) Intangible assets

Costs that are directly associated with acquiring identifiable and unique software products that are expected to generate economic benefits exceeding cost, beyond one year, are recognised as intangible assets. These assets are measured at cost, less accumulated amortisation and impairment losses, if any.

Amortisation is recognised in profit or loss on the straight-line basis over the estimated useful lives of the intangible assets, from the date that they are made available for use. The estimated useful life ranges from a minimum of 3 years to a maximum of 10 years.

(e) Impairment

The company recognises a loss allowance for expected credit losses on financial assets that are measured at amortised cost. At each reporting date, the loss allowance for the financial asset is measured at an amount equal to the lifetime expected credit losses if the credit risk on the financial asset has increased significantly since initial recognition. If at the reporting date, the financial asset has not increased significantly since initial recognition, the loss allowance is measured for the financial asset at an amount equal to twelve month expected credit losses.

Forward looking information

The company applies an unbiased and probability weighted estimate of credit losses by evaluating a range of possible outcomes that incorporates forecasts of future economic conditions. Macroeconomic factors and forward looking information are incorporated into the measurement of ECL. Measurement of ECLs at each reporting period reflect reasonable and supportable information at the reporting date about past events, current conditions and forecasts of future economic conditions.

Reversal of impairment:

An impairment in respect of a receivable is reversed, if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised.

In respect of other assets, an impairment loss is reversed, if there has been a change in the estimates used to determine the recoverable amount.

An impairment loss is reversed only to the extent that the assets carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had been recognised.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(e) Impairment (cont'd)

Reversal of impairment (cont'd):

Calculation of recoverable amount:

The recoverable amount of the company's investment securities and receivables is calculated as the value of the expected future cash flows, discounted at the original effective interest rate inherent in the asset. Receivables with a short duration are not discounted.

The recoverable amount of other assets is the greater of their net selling price and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflow, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

(f) Impairment of non-financial assets

The carrying amounts of the company's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. A cash-generating unit is the smallest identifiable asset group that generates cash inflows that are largely independent from other assets and groups. Impairment losses are recognised in profit or loss.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

(g) Pension obligations

Defined contribution plan

The company participates in a defined-contribution plan, the assets of which are held separately from those of the company. Contributions to the plan, made on the basis provided for in the rules, are charged to profit or loss when due.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(h) Cash and cash equivalents

Cash and cash equivalents are carried at cost. For the purpose of the statement of cash flow, cash and cash equivalents comprise cash at bank and in hand, deposits and short-term highly liquid investments where original maturities do not exceed three months, are readily convertible to known amounts of cash, are subject to an insignificant risk of changes in value and are held for the purpose of meeting short-term commitments rather than for investments purposes.

(i) Resale agreements

Securities purchased under agreements to resell are recorded as collateralized financing transactions and are classified as loans and receivables. Resale agreements are accounted for as short-term collateralised lending and are measured at amortised cost, less impairment.

(j) Trade and other receivables

Trade receivables are carried at original invoice amounts less provision for impairment losses.

(k) Trade and other payables

Trade and other payables are measured at amortised cost.

(l) Borrowings

Borrowings, if any, are recognised initially when loan proceeds are received, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost and any difference between proceeds and the redemption value is recognised in profit or loss over the period of the borrowings. Borrowing costs are recognised as expenses in the period in which they are incurred.

(m) Leases

The Company has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. The details of accounting policies under IAS 17 and IFRIC 4 are disclosed separately.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(m) Leases (cont'd)

Policy applicable from 1 April 2019

At inception of a contract, the company assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the company uses the definition of a lease in IFRS 16.

(i) As a lessee

At commencement or on modification of a contract that contains a lease component, the company allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices. However, for the leases of property the company has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The company classifies arrangements with a term of greater than 12 months where substantially all risks and rewards incidental to ownership are retained by the third-party lessors as leases.

The company recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the present value of future lease payments, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the company by the end of the lease term or the cost of the right-of-use asset reflects that the company will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain re-measurements of the lease liability.

The lease liability is initially measured at the present value of the remaining lease payments at the commencement date, generally discounted using the company's incremental borrowing rate.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(m) Leases (cont'd)

The company determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under any residual value guarantee; and
- the exercise price under a purchase option that the company is reasonably certain to exercise, lease payments in an optional renewal period if the company is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the company is reasonably certain not to terminate early.

The lease liability is measured at amortised cost using the effective interest rate method. It is re-measured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the company's estimate of the amount expected to be payable under a residual value guarantee, if the company changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

Short-term leases and leases of low-value assets

The company has elected not to recognise right-of-use assets and lease liabilities for leases of low-value assets and short-term leases of 12 months or less. The company recognises the lease payments associated with these leases as an expense on the straight-line basis over the term.

Policy applicable prior to 1 April 2019

For contracts entered into before 1 April 2019, the company determined whether the arrangement was or contained a lease based on the assessment of whether:

- fulfilment of the arrangement was dependent on the use of a specific asset or assets; and
- the arrangement had conveyed a right to use the asset. An arrangement conveyed the right to use the asset if one of the following was met:

SPECTRUM MANAGEMENT AUTHORITY LIMITED**NOTES TO THE FINANCIAL STATEMENTS****31 MARCH 2020****4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****(m) Leases (cont'd)**

Policy applicable prior to 1 April 2019 (cont'd)

- the purchaser had the ability or right to operate the asset while obtaining or controlling more than an insignificant amount of the output;
- the purchaser had the ability or right to control physical access to the asset while obtaining or controlling more than an insignificant amount of the output; or
- facts and circumstances indicated that it was remote that other parties would take more than an insignificant amount of the output, and the price per unit was neither fixed per unit of output nor equal to the current market price per unit of output.

In the comparative period, as a lessee, the company classified leases that transferred substantially all of the risks and rewards of ownership as finance leases. When this was the case, the leased assets were measured initially at an amount equal to the lower of their fair value and the present value of the minimum lease payments. Minimum lease payments were the payments over the lease term that the lessee was required to make, excluding any contingent rent. Subsequent to initial recognition, the assets were accounted for in accordance with the accounting policy applicable to that asset.

Assets held under other leases were classified as operating leases and were not recognised in the statement of financial position. Payments made under operating leases were recognised in profit or loss on the straight-line basis over the term of the lease. Lease incentives received were recognised as an integral part of the total lease expense, over the term of the lease.

(n) Revenue recognition

Performance obligations and revenue recognition policies:

Revenue is measured based on the consideration specified in a contract with a customer. The company recognises revenue when it transfers control of the goods to a customer.

A contract with a customer that results in a recognised financial instrument in the company's financial statements may be partially in the scope of IFRS 9 and be partially in the scope of IFRS 15. If this is the case, then the company first applies IFRS 9 to separate and measure the part of the contract that is in the scope of IFRS 9 and then applies IFRS 15 to the residual.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(n) Revenue recognition (cont'd):

Performance obligations and revenue recognition policies (cont'd):

The nature and timing of the satisfaction of performance obligations in contracts with customers, including significant payment terms, and the related revenue recognition policies are as follows:

Type of revenue	Nature and timing of satisfaction of performance obligations, including significant payment terms.	Revenue recognition under IFRS 15
Regulatory Fee	<p>The company charges regulatory fees in order to cover its reasonable operating costs in relation to spectrum licences pursuant to the Telecommunications Act, 2000 and the Telecommunications (Spectrum Regulatory Fees) Amendment) Regulations, 2017. Payment is required in full on or before the date a new licence is issued or before the next validity period for existing licences that are being renewed.</p> <p>The validity period represents the period over which the economic benefits of each licence will flow to the company so that the revenue can be reliably measured.</p> <p>The validity period is the time that each licensee is authorised to use the spectrum which is usually twelve months duration starting from a date in the current year to the day before the corresponding date in the subsequent year, save and except for temporary licences which are valid for a minimum of 3 months duration.</p>	<p>Revenue is recognised when it is probable that economic benefits will flow to the company and the revenue can be reliably measured. Income is recognised in conformity with the validity period of licences.</p>
Processing Fee	<p>The company charges a fee to other entities to process each application submitted for spectrum licences, certificates or related services.</p>	<p>Processing fee is recognised at a point in time based on an agreed fee.</p>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(o) Related parties

A related party is a person or entity that is related to the entity that is preparing its financial statements (referred to in IAS 24, Related Party Disclosures as the "reporting entity", in this case, the company).

- (a) A person or a close member of that person's family is related to a reporting entity, if that person:
 - i) has control or joint control over the reporting entity;
 - ii) has significant influence over the reporting entity; or
 - iii) is a member of the key management personnel of the reporting entity or of a parent of the reporting entity.
- (b) An entity is related to a reporting entity if any of the following conditions applies:
 - i) The entity and the reporting entity are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
 - ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
 - iii) Both entities are joint ventures of the same third party.
 - iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
 - v) The entity is a post-employment benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity.
 - vi) The entity is controlled, or jointly controlled by a person identified in (a).
 - vii) A person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
 - viii) The entity or any member of a group of which it is a part provides key management personnel services to the company or to the parent of the company.

A related party transaction is a transfer of resources, services or obligations between a reporting entity and a related party, regardless of whether a price is charged.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

5. FINANCIAL AND CAPITAL RISK MANAGEMENT

(a) Overview

The company has exposure to the following risks from its use of financial instruments and its operations:

- Credit risk
- Market risk
- Liquidity risk
- Operational risk

Information about the company's exposure to each of these risks, the company's objectives, policies and processes for measuring and managing risk is detailed below.

Risk Management Framework

The Board has overall responsibility for the determination of the company's risk management objectives and policies. Whilst retaining ultimate responsibility, it has delegated the authority for designing the operating processes to, and ensuring that the Board receives reports from, the Managing Director, through whom it reviews the effectiveness of the processes implemented and the appropriateness of the objectives and policies it establishes.

The overall objective of the Board is to set policies that seek to reduce risk, as far as possible, without unduly affecting the company's regulatory activities.

(b) Credit risk

Credit risk is the risk that one party to a financial instrument will fail to discharge its obligation and cause the other party to incur a financial loss. The risk arises mainly from its receivables, resale agreements and cash and cash equivalents.

The maximum exposure to credit risk at the reporting date was:

	<u>2020</u>	<u>2019</u>
	\$	\$
Cash and cash equivalents	255,836,135	292,605,463
Resale agreements	749,095,618	711,948,326
Receivables (see note 12)	<u>61,039,237</u>	<u>4,178,626</u>
	<u>1,065,970,990</u>	<u>1,008,732,415</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

5. FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (cont'd)

Cash and cash equivalents

The company maintains cash resources with reputable financial institutions that are appropriately licensed and regulated, therefore credit risk is considered to be low. No allowance for impairment is deemed necessary.

Trade receivables

The company has policies in place to ensure that it provides its services to customers with an acceptable credit history, who will pay the applicable licence fees and regulatory fees for the use of the spectrum. The company has no significant concentration of credit risk attached to receivables as the company has a diverse customer base, with no significant balances arising from any single economic or business sector, or single entity or customer. The company, therefore, manages credit risk by continually screening its customers, pursuing its receivables rigorously.

Allowances are determined upon origination of the trade accounts receivable based on a model that calculates the expected credit loss ("ECL") of the trade accounts receivable and are reviewed over the lifetime of the trade receivables.

The company estimates expected credit loss ("ECL") on trade receivables using a provision matrix based on historical credit loss experience as well as the credit risk and expected developments for each group of customers.

There has been no change to the company's exposure to credit risk or the manner in which it measures and manages this risk during the year.

Allowance for impairment losses under IFRS 9 for trade receivables was immaterial for recognition in the financial statements.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

5. FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (cont'd)

Resale agreements

Investments are low-risk and are held with Government of Jamaica (GOJ) approved financial institutions with the holding not exceeding 33⅓% of its portfolio in any one institution. Additionally, during the tenure of the investments, financial institutions are required to transfer the minimum of the nominal value of securities representing the net maturity value of investments to the company's designated account with the Bank of Jamaica (BOJ) operated JamClear-CSD.

Allowance for impairment losses under IFRS 9 for resale agreements was immaterial for recognition in the financial statements.

Concentration by geography

The issuers of the majority of the company's assets are located in Jamaica.

(c) Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of changes in market prices. Market risk arises mainly from changes in interest rate and foreign exchange rate and may affect the company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising return. Market risk exposures are measured using sensitivity analysis.

(i) Interest rate risk

Interest rate risk is the risk that the value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Floating rate instruments expose the company to cash flow interest risk, whereas fixed interest rate instruments expose the company to fair value interest risk.

The company's interest rate risk policy requires it to manage interest rate risk by maintaining an appropriate mix of investments. The policy also requires it to manage the maturities of interest-bearing financial assets and interest-bearing financial liabilities.

The company's interest rate risk arises from short-term resale agreements that are backed by GOJ/BOJ securities (see note 14).

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

5. FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)

(c) Market risk (cont'd)

Interest rate sensitivity analysis:

The following tables indicate the sensitivity to a reasonable possible change in interest rates, with all other variables held constant, on profit or loss and equity.

	Effect on profit or loss <u>2020</u> \$	Effect on equity <u>2020</u> \$	Effect on profit or loss <u>2019</u> \$	Effect on equity <u>2019</u> \$
Change in basis points:				
-100 (2019: -100)	(7,490,956)	(7,490,956)	(7,119,483)	(7,119,483)
100 (2019: 100)	<u>7,490,956</u>	<u>7,490,956</u>	<u>7,119,483</u>	<u>7,119,483</u>

(ii) Currency risk

Currency risk is the risk that the value of a financial instrument will fluctuate because of changes in foreign exchange rates.

The company is exposed to foreign currency risk on transactions that it undertakes in foreign currencies that give rise to the net currency gains and losses recognised during the year. Such exposures comprise the assets and liabilities of the company that are not denominated in its functional currency.

The company ensures that the risk is kept to an acceptable level by monitoring its value at risk.

The table below summarises the total exposure to foreign currency risk:

	<u>2020</u>		<u>2019</u>	
	<u>J\$</u>	<u>US\$</u>	<u>J\$</u>	<u>US\$</u>
Financial Assets				
Cash and cash equivalents	248,428,496	1,874,543	232,567,492	1,882,018
Resale agreements	<u>92,752,802</u>	<u>699,876</u>	<u>94,597,141</u>	<u>765,513</u>
	<u>341,181,298</u>	<u>2,574,419</u>	<u>327,164,633</u>	<u>2,647,531</u>

The exchange rate used to translate assets denominated in United States Dollars at the reporting date was 132.53 (2019: 123.57) Jamaica dollars to 1 United States dollar.

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

5. FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)

(c) Market risk (cont'd)

(ii) Currency risk (cont'd)

Currency sensitivity analysis

The following table indicates the effect on profit or loss arising from changes in the United States dollar exchange rate. The sensitivity analysis represents outstanding foreign currency denominated monetary items and adjusting for their translations at the reporting date for a change in foreign currency rates.

	<u>2020</u>	<u>2019</u>
	\$	\$
Effect on profit:		
Devaluation - 6% (2019: 6%)	<u>5,836,926</u>	<u>6,139,375</u>
Revaluation - 2% (2019: 4%)	<u>(1,945,642)</u>	<u>(4,092,917)</u>

There was no change in the nature of exposure to market risk to which the company is subjected to or its approach to measuring and managing the risk during the year.

(d) Liquidity risk

Liquidity risk is the risk that an enterprise will encounter difficulty in raising funds to meet commitments associated with financial liabilities. The company manages the risk by monitoring future cash flows and liquidity on a daily basis and maintaining a portfolio of short-term investments that are collateralized by Government of Jamaica securities.

The contractual outflows for accounts payable are represented by the carrying amount and may require settlement within 12 months of the reporting date.

There was no change in the nature of exposure to liquidity risk to which the company is subjected or its approach to measuring and managing the risk during the year.

(e) Capital risk

The company is not subject to any externally imposed capital requirements.

The company's objectives, when managing capital, are to safeguard the company's ability to continue as a going concern and to maintain a strong capital base to support the development of its business. The company's capital is defined as share capital, contributed capital and retained earnings. Capital is managed through a formal budgetary process which is closely monitored by management to maintain profitability and control expenditure.

SPECTRUM MANAGEMENT AUTHORITY LIMITED**NOTES TO THE FINANCIAL STATEMENTS****31 MARCH 2020****5. FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)****(f) Operational risk**

Operational risk is the risk of direct or indirect loss arising from a variety of causes associated with the company's processes, personnel, technology and external factors, other than financial risks, such as generally accepted standards of corporate behaviour. As a public body, the company manages operational risk with specific reference to guidelines provided in relevant Acts and Government circulars, so as to avoid financial loss and damage to its reputation.

The primary responsibility for the development and implementation of controls to address operational risk is assigned to senior management. This responsibility is supported by the development of overall standards for the management of operational risk in the following areas:

- Requirements for appropriate segregation of duties, including the authorisation of transactions:
- Requirements for the reconciliation and monitoring of transactions.
- Compliance with government regulatory and other legal requirements.
- Risk mitigation including insurance.

(g) Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Market price is used to determine fair value where an active market exists as it is the best evidence of the fair value of a financial instrument. The fair value of a liability reflects its non-performance risk.

Determination of fair value and fair value hierarchy

IFRS specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. The different levels have been defined as follows:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Discounted cash flow technique using a discount rate from observable market data, i.e. average of several brokers/dealers market indicative yields in active markets for identical assets or liabilities.

SPECTRUM MANAGEMENT AUTHORITY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
31 MARCH 2020

5. **FINANCIAL AND CAPITAL RISK MANAGEMENT (CONT'D)**

(g) Fair value (cont'd)

Level 3 - Valuation techniques using significant unobservable inputs.

The fair values of the financial instruments of the company that include cash and cash equivalents, receivables, resale agreements, and payables, approximate to their carrying values due to their relatively short tenure. As a result, these financial instruments are not grouped under the hierarchy of valuation.

6. **REVENUE AND OTHER INCOME**

	<u>2020</u>	<u>2019</u>
	\$	\$
(a) Revenue:		
Regulatory fees (Note 20)	447,988,318	375,826,173
Processing fees	<u>16,583,622</u>	<u>13,705,077</u>
	<u>464,571,940</u>	<u>389,531,250</u>
(b) Other Income, net:		
Interest income calculated using effective interest rate method	16,529,095	9,691,436
Exchange gain/(loss)	6,147,812	(1,520,793)
Other	<u>123,896</u>	<u>115,396</u>
	<u>22,800,803</u>	<u>8,286,039</u>

7. **EXPENSES BY NATURE**

(a) Operating expenses

	<u>2020</u>	<u>2019</u>
	\$	\$
Salaries and other related costs [Note 7(b)]	199,649,760	185,240,288
Chairman and Director's fees [Note 21(a)]	1,756,500	1,102,500
Board/ Committee meeting	2,022,649	3,010,440
Travel and subsistence	17,068,825	8,058,237
Subscription and Donation	5,012,060	3,378,031
Audit fees - current year	1,895,000	1,895,000
Legal and Professional fees	26,020,917	3,792,703
Office expenses	22,465,666	15,903,475
Security	4,627,061	4,323,775
Public relations and education	1,388,234	2,842,182
Lease and rental	2,734,448	7,148,913
Repairs and maintenance	<u>14,580,617</u>	<u>25,258,175</u>
Sub-total c/fwd:	<u>299,221,737</u>	<u>261,953,719</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

7. EXPENSES BY NATURE (CONT'D)

(a) Operating expenses (cont'd)

	<u>2020</u>	<u>2019</u>
	\$	\$
Sub-total b/fwd:	299,221,737	261,953,719
Advertisement	1,961,198	885,749
Utilities	14,512,520	11,250,429
Insurance	7,058,422	5,557,849
Motor vehicle	2,616,885	2,223,385
Bank Charges	412,493	327,023
Interest expense implicit in leases	4,362,963	-
Property Tax	153,100	153,100
Irrecoverable GCT	13,219,247	11,214,819
Impairment losses recovered [Note 12]	(411,651)	(523,912)
Depreciation & amortization	<u>77,663,999</u>	<u>61,287,466</u>
	<u>420,770,913</u>	<u>354,329,627</u>

(b) Salaries and other related costs

	<u>2020</u>	<u>2019</u>
	\$	\$
Salaries and wages	157,440,694	141,451,992
Statutory contributions	9,679,294	8,576,684
Group life and health insurance	9,228,146	7,700,946
Uniform	859,089	1,111,466
Contract/temporary workers	<u>13,147,619</u>	<u>10,363,075</u>
	190,354,812	169,204,163
Pension contributions	1,359,997	1,424,114
Staff training and welfare	6,638,862	13,783,813
Subsistence and accommodation	<u>1,296,059</u>	<u>828,198</u>
	<u>199,649,760</u>	<u>185,240,288</u>

The number of persons employed by the company as at the reporting date was 36 (2019: 34).

8. PROFIT

Profit is stated after charging:

	<u>2020</u>	<u>2019</u>
	\$	\$
Auditors' remuneration	1,895,000	1,895,000
Staff costs [Note 7(b)]	199,649,760	185,240,288
Depreciation & amortisation [Note 7(a)]	<u>77,663,999</u>	<u>61,287,466</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
31 MARCH 2020

9. PROPERTY, PLANT AND EQUIPMENT

	Land and building \$	Leasehold improvement \$	Monitoring & office equipment \$	Furniture, and fixtures \$	Motor vehicles \$	Other assets \$	Work-in- progress \$	Total \$
At cost:								
31 March 2018	73,799,368	23,361,469	482,644,314	14,959,391	39,467,779	86,791	139,495,166	773,814,278
Additions	-	-	984,987	1,943,835	-	-	51,119,873	54,048,695
CWIP Transfers	<u>7,097,755</u>	<u>-</u>	<u>11,039,694</u>	<u>25,455</u>	<u>-</u>	<u>-</u>	<u>(18,162,904)</u>	<u>-</u>
31 March 2019	80,897,123	23,361,469	494,668,995	16,928,681	39,467,779	86,791	172,452,135	827,862,973
Additions	-	-	9,504,903	715,925	-	-	79,491,150	89,711,978
CWIP Transfers	<u>-</u>	<u>14,181,456</u>	<u>148,305,541</u>	<u>-</u>	<u>-</u>	<u>733,556</u>	<u>(163,220,553)</u>	<u>-</u>
31 March 2020	80,897,123	37,542,925	652,479,439	17,644,606	39,467,779	820,347	88,722,732	917,574,951
Depreciation:								
31 March 2018	15,561,303	6,697,879	235,510,903	11,388,388	21,138,730	56,815	-	290,354,018
Charge for the year	<u>1,885,465</u>	<u>2,280,889</u>	<u>43,643,190</u>	<u>733,498</u>	<u>6,162,588</u>	<u>8,679</u>	<u>-</u>	<u>54,714,309</u>
31 March 2019	17,446,768	8,978,768	279,154,093	12,121,886	27,301,318	65,494	-	345,068,327
Charge for the year	<u>1,913,094</u>	<u>3,401,844</u>	<u>56,230,716</u>	<u>840,098</u>	<u>4,909,209</u>	<u>63,696</u>	<u>-</u>	<u>67,358,657</u>
31 March 2020	19,359,862	12,380,612	335,384,809	12,961,984	32,210,527	129,190	-	412,426,984
Net book values:								
31 March 2020	61,537,261	25,162,313	317,094,630	4,682,622	7,257,252	691,157	88,722,732	505,147,967
31 March 2019	63,450,355	14,382,701	215,514,902	4,806,795	12,166,461	21,297	172,452,135	482,794,646
31 March 2018	58,238,065	16,663,590	247,133,411	3,571,003	18,329,049	29,976	139,495,166	483,460,260

10. INTANGIBLE ASSETS

	Software and licences \$	Capital work-in- progress \$	Total \$
At cost:			
31 March 2018	37,000,981	1,749,545	38,750,526
Additions:	-	4,692,538	4,692,538
CWIP Transfers	<u>1,749,546</u>	<u>(1,749,546)</u>	<u>-</u>
31 March 2019	38,750,527	4,692,537	43,443,064
Additions	-	1,659,722	1,659,722
CWIP Transfers	<u>4,138,803</u>	<u>(4,138,803)</u>	<u>-</u>
31 March 2020	42,889,330	2,213,456	45,102,786
Depreciation:			
31 March 2018	26,380,811	-	26,380,811
Charge for the year	<u>6,573,157</u>	<u>-</u>	<u>6,573,157</u>
31 March 2019	32,953,968	-	32,953,968
Charge for the year	<u>4,343,776</u>	<u>-</u>	<u>4,343,776</u>
31 March 2020	37,297,744	-	37,297,744
Net book values			
31 March 2020	5,591,586	2,213,456	7,805,042
31 March 2019	5,796,559	4,692,537	10,489,096
31 March 2018	10,620,170	1,749,545	12,369,715

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

11. LEASES

The company's leases primarily consist of agreements to secure right-of-use to spaces upon which the company erects telecommunication facilities including but not limited to monitoring stations. It is expected that in the normal course of business, leases that expire generally will be renewed or replaced by similar leases.

(i) Right-of-use assets

	<u>2020</u> \$
Balance at 1 April 2019	48,297,762
Additions to right-of-use assets	3,603,926
Amortisation charge for the year	<u>(5,961,566)</u>
Balance at 31 March 2020	<u>45,940,122</u>
Weighted-average remaining lease term (in years)	10
Discount rate	10%

(ii) Lease liabilities

Maturities of lease liabilities on an undiscounted basis as of 31 March 2020 are presented below along with the current and non-current lease liabilities on a discounted basis.

	<u>2020</u> \$
Year ending 31 March	
2021	8,465,142
2022	8,661,503
2023	8,424,049
2024	6,445,114
2025	6,386,625
Thereafter	<u>36,689,259</u>
Total payments on an undiscounted basis	75,071,692
Less: Present value discount	<u>(23,967,043)</u>
Present value of lease liabilities	51,104,649
Current portion	<u>(6,346,320)</u>
Non-current portion	<u>44,758,329</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

11. LEASES (CONT'D)

(iii) Amount recognised in profit or loss

	<u>2020</u>
	\$
Included in operating expenses:	
Amortisation of right-of-use assets	5,961,566
Interest expense implicit in leases	4,362,963
Included in other income, net:	
Translation loss on lease liabilities	<u>1,049,344</u>
Total lease expenses	<u>11,373,873</u>

(iv) Amounts recognised in statement of cash flows

	<u>2020</u>
	\$
Total cash outflows from leases	<u>6,209,346</u>

12. RECEIVABLES

	<u>2020</u>	<u>2019</u>
	\$	\$
Trade receivables - Regulatory fees	48,473,251	1,438,172
Other receivables	<u>12,565,986</u>	<u>3,152,105</u>
	61,039,237	4,590,277
Less: Impairment allowance	<u>-</u>	(411,651)
	61,039,237	4,178,626
Prepayments	<u>13,899,019</u>	<u>7,789,429</u>
	<u>74,938,256</u>	<u>11,968,055</u>
Movement in impairment allowance:		
	<u>2020</u>	<u>2019</u>
	\$	\$
Balance at the beginning of year	411,651	935,563
Impairment losses recovered on receivables	<u>(411,651)</u>	<u>(523,912)</u>
Balance at the end of year	<u>-</u>	<u>411,651</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
31 MARCH 2020

12. RECEIVABLES (CONT'D)

Movement in impairment allowance (cont'd)

- (i) In determining the recoverability of a receivable, the company considers any change in the credit quality of the receivable from the date credit was initially granted up to the reporting date. Allowance for impairment losses under IFRS 9 for receivables was immaterial for recognition in the financial statements at March 31, 2020.

13. TAXATION RECOVERABLE

Taxation recoverable represents taxes withheld at source on interest received on resale agreements and cash and cash equivalents, and amount paid as quarterly taxation installments prior to the company receiving confirmation of its Tax Exempt status.

Movement in taxation recoverable:

	<u>2020</u>	<u>2019</u>
	\$	\$
Balance at the beginning of year	13,025,982	10,677,300
Taxes withheld at source during year	<u>4,157,170</u>	<u>2,348,682</u>
Balance at the end of year	<u>17,183,152</u>	<u>13,025,982</u>

14. RESALE AGREEMENTS

The company enters into reverse repurchase agreements collateralised by Government of Jamaica and/or Bank of Jamaica Securities.

These resale agreements include interest accrued of \$678,265 (2019: \$650,083) and have an average maturity period of 34 days (2019: 31 days).

	<u>2020</u>	<u>2019</u>
	\$	\$
Resale agreements - J\$ equivalent of US\$	92,752,802	94,597,141
- J\$ currency	<u>656,342,816</u>	<u>617,351,185</u>
	<u>749,095,618</u>	<u>711,948,326</u>

The fair values of underlying assets for resale agreements amounted to \$765,833,145 (2019: \$728,785,156).

The weighted average effective interest rates at the reporting date were, as follows:

	<u>2020</u>	<u>2019</u>
	%	%
US\$	2.18	2.10
J\$	<u>2.31</u>	<u>2.37</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

15. CASH AND CASH EQUIVALENTS

	<u>2020</u>	<u>2019</u>
	\$	\$
Cash in hand - J\$ Currency	75,000	75,000
Bank balances - J\$ Currency	<u>7,332,639</u>	<u>59,962,971</u>
	7,407,639	60,037,971
Bank balances - J\$ equivalent of US\$	<u>248,428,496</u>	<u>232,567,492</u>
	<u>255,836,135</u>	<u>292,605,463</u>

The weighted average effective interest rates at the year-end were as follows:

	<u>2020</u>	<u>2019</u>
	%	%
Cash at bank - US\$	1.57	1.45
- J\$	<u>0.42</u>	<u>1.86</u>

16. SHARE CAPITAL

	<u>2020</u>	<u>2019</u>
	\$	\$
Authorized - 100 ordinary shares of no par value		
Issued and fully paid - 2 ordinary shares of no par value	<u>20</u>	<u>20</u>

17. CONTRIBUTED CAPITAL

	<u>2020</u>	<u>2019</u>
	\$	\$
(i) Government of Jamaica	79,999,980	79,999,980
(ii) Government of Jamaica	<u>64,700,386</u>	<u>64,700,386</u>
	<u>144,700,366</u>	<u>144,700,366</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

17. CONTRIBUTED CAPITAL (CONT'D)

- (i) This represents funds advanced to Spectrum Management Authority Limited through Cable & Wireless Jamaica Limited in lieu of licence and spectrum fees as per heads of agreement between the Government of Jamaica and Cable & Wireless Jamaica Limited in 1999, Clause 7.4.4 and 7.5. These funds were used to finance the start-up operations of the company.
- (ii) This represents funds received from the Government of Jamaica to finance the company's capital programme which formed a part of the first phase of the company's two year business plan which commenced in the financial year 2004/2005.

18. DEFERRED CAPITAL GRANT

This represents the proceeds of funds paid to Spectrum Management Authority Limited by the Government of Jamaica, arising from a retention from the gross spectrum licence fees for a domestic mobile spectrum licence issued in March 2014. These funds are to be used to carry out capital expenditure geared towards improving the technical capacity of the company to monitor the use of the spectrum and to ensure that licensees have unencumbered access to the spectrum. Amounts are transferred from deferred capital grant and recognized in profit and loss in each and succeeding years based on the incremental increase in depreciation resulting from new capital expenditure on spectrum monitoring equipment from these funds. As of reporting date, these funds have not yet been utilized to carry out capital expenditure.

19. PAYABLES

	<u>2020</u>	<u>2019</u>
	\$	\$
Tax Administration Jamaica:		
Spectrum licence fees	247,802,959	284,477,083
Accruals	<u>29,281,410</u>	<u>20,874,891</u>
	277,084,369	305,351,974
Customers' deposits	<u>1,243,805</u>	<u>798,378</u>
	<u>278,328,174</u>	<u>306,150,352</u>

Customers' deposits represent regulatory fees received in the month(s) prior to when the validity periods of the respective renewal licence(s) will begin.

Movement in spectrum licence fees:

	<u>2020</u>	<u>2019</u>
	\$	\$
Balance payable at beginning of year	284,477,083	296,539,193
Spectrum licence fees received	1,637,448,874	1,134,245,889
Spectrum licence fees paid	(1,674,122,998)	(1,146,307,999)
Balance payable at end of year	<u>247,802,959</u>	<u>284,477,083</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

19. PAYABLES (CONT'D)

Spectrum licence fees payable represents amounts due to the Government of Jamaica (GOJ) recognised at the time they are received from customers, and are reflected as a "pass through" in the company's accounts. Normally, fees collected in any month are remitted to the Consolidated Fund in the subsequent month except for domestic mobile licences. All funds collected for the domestic mobile licences are remitted immediately in the month of collection to the GOJ Consolidated Fund, however for an amount of US\$1,800,000 that was collected from Symbiote Investments Limited remains in payable, pending a directive from the Minister responsible for telecommunications.

20. DEFERRED INCOME

This is the unearned portion of regulatory fees that are billed during the financial year and represents the entire, or the proportionate number of months, of the validity period of applicable licences which fall outside the financial year.

Movement in deferred income:

	<u>2020</u>	<u>2019</u>
	\$	\$
Balance at the beginning of year	127,543,740	104,460,967
Add: Amounts invoiced during year	491,218,741	398,908,946
Less: Transfers to revenue (Note 6)	<u>(447,988,318)</u>	<u>(375,826,173)</u>
Balance at the end of year	<u>170,774,163</u>	<u>127,543,740</u>

21. RELATED PARTY TRANSACTIONS AND BALANCES

The following transactions were carried out with related parties:

(a) Compensation of key management personnel

	<u>2020</u>	<u>2019</u>
	\$	\$
Salaries and other related costs:		
Key management personnel	<u>52,998,323</u>	<u>46,527,332</u>
Directors' fees:		
Board Chairman	166,500	165,000
Committee Chairman	222,000	150,000
Board members	924,000	630,000
Committee members	<u>444,000</u>	<u>157,500</u>
	<u>1,756,500</u>	<u>1,102,500</u>

SPECTRUM MANAGEMENT AUTHORITY LIMITED

NOTES TO THE FINANCIAL STATEMENTS

31 MARCH 2020

21. RELATED PARTY TRANSACTIONS AND BALANCES (CONT'D)

The following transactions were carried out with related parties (cont'd)

(b) Related party balances:

(i) Included in other receivables are:

	<u>2020</u>	<u>2019</u>
	\$	\$
Due from related companies or agencies:		
Universal Service Fund	<u>344,160</u>	<u>-</u>

(ii) Included in payables is an amount of \$247,802,959 (2019: \$284,477,083) payable to Tax Administration Jamaica.

22. CAPITAL COMMITMENTS

As at the reporting date, the company had capital commitments totaling \$19,347,724 made up as follows:

(i) \$19,867,624 has been committed towards the "Annex Refurbishing" project of the offices at 23 Harbour Street, of which \$519,900 was spent, leaving an outstanding balance of \$19,347,724.

23. SUBSEQUENT EVENTS

On June 10, 2020, the company paid US\$1,846,613 to Tax Administration Jamaica representing outstanding sums owed, for ultimate payment into the Consolidated Fund. This amount represents the US\$1,800,000 that was collected from Symbiote Investments Limited in a prior year for spectrum licence fees but not paid over to Tax Administration Jamaica, plus interest earned on deposit from the date the funds were collected and held separately from the other funds of the company [see Note 19 and Note 21 (b)(ii)].

24. IMPACT OF THE COVID-19 PANDEMIC

The World Health Organization in March 2020 declared the novel coronavirus, COVID-19, as a global pandemic. As a first step the company instituted measures at its property to safeguard and protect its stakeholders by not only providing information to employees, business partners and clients, but equipping all personnel with supplies to prevent contagion and establishing protocols to access its premises. In addition, the company has been working with its staff to ensure common areas are thoroughly cleaned and sanitized and it engaged a flexi-work plan to minimize the number of employees in its premises whilst enabling a work from home strategy to continue operating the business. It is management's assessment that there has been minimal impact on the company's operations.