REPORT

ON

INFORMATION TECHNOLOGY AUDIT

OF

AUTOMATED SYSTEM FOR CUSTOMS DATA

ASYCUDA
world

Office of the Auditor General
Brades
Montserrat

September 2019

**AUTOMATED SYSTEM FOR
CUSTOMS DATA - ASYCUDA**

This is a Report of an Information Technology Audit conducted by the Office of the Auditor General

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Office of the Auditor General
September 13, 2019

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ABBREVIATIONS

ASYCUDA	Automated System for Customs Data
DITES	Department of Information Technology & e-Services
GoM	Government of Montserrat
ISSAI	International Standard of Supreme Audit Institutions
IT	Information Technology
MCD	Montserrat Customs Division
MCED	Montserrat Customs & Excise Department
MCRS	Montserrat Customs & Revenue Services
OAG	Office of the Auditor General
OECS	Organization of Eastern Caribbean States
OotP	Office of the Premier
SA	System Administrator
SAD	Single Administrative Document(s)
SLA	Service Level Agreement
UNCTAD	United Nations Conference on Trade and Development

PREAMBLE

Vision Statement

"To be a proactive Supreme Audit Institution that helps the nation make good use of its resources."

Mission Statement

"The OAG is the national authority on public sector auditing issues and is focused on assessing performance and promoting accountability, transparency and improved stewardship in managing public resources by conducting independent and objective reviews of the accounts and operations of central government and statutory agencies; providing advice; and submitting timely Reports to Accounting Officers and the Legislative Assembly."

The Goal

Our goal is "to promote staff development, enhance productivity, and maintain a high standard of auditing and accounting in the public sector, thereby contributing to the general efficiency and effectiveness of public finance management."
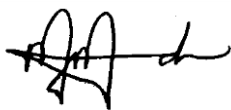
AUDITOR GENERAL'S OVERVIEW

IT enhancement in the Montserrat Public Service has resulted in some improvements; hence, there is less paperwork in some Ministries and Departments. The Government of Montserrat along with external partners has sought ways to improve the efficiency and service delivery with the customs functions over the years with the latest software being ASYCUDAWorld.

Our review revealed that the introduction of this paperless version has brought many benefits to various users. The clients can access and input data from their electronic devices namely computers and or laptops. The system handles manifests and customs declarations, accounting procedures, transit, and suspense procedures. The Customs Division has achieved its objective of having a software system that is secure, user-friendly and efficient. Users are generally appreciative of utilizing this IT system to increase their productivity by reducing the overall processing time and achieve greater value for money.

Despite the implementation of ASYCUDAWorld, we observed that the consignment process is lengthy and requires officers to manually check items; this is very tedious and time-consuming. We recommend that consideration should be given to invest in two touch screen tablets that are outfitted with the related software and be internet-enabled which will speed up the tallying and consignment process. We found good physical access controls, policies and procedures in place to prevent unauthorized access to the location of Customs Offices. However, the health and safety of officers are very important and the lack of proper environmental controls policies and procedures is of some concern. This has led to a number of maintenance and repair issues that requires management immediate intervention to ensure a safe and comfortable working environment.

We have highlighted other findings and provided a number of recommendations that we feel would benefit the Customs Division and by extension the Government of Montserrat and the Public, once they are implemented.

I wish to thank the Montserrat Customs and Revenue Services and their staff and all other persons who provided information, clarifications or extended any courtesy to the auditors during this assignment.

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EXECUTIVE SUMMARY

In the early 1990s, the then Montserrat Customs & Excise Department (MCED) was a participant in a multi-donored ASYCUDA project for the Organisation of Eastern Caribbean States (OECS). From this project, the ASYCUDA software was implemented at the MCED to automate customs functions such as manifests, customs declarations, and accounting procedures. However, the administering of the customs functions was still a combined system of manual and computerised processes.

The Montserrat Customs Division has since migrated to a web-based version called ASYCUDAWorld, which eliminates the dual entry process and enables commercial businesses and private citizens alike, to input data into an online manifest for quicker processing.

Main Findings and Recommendations

Overall Achievement. The Montserrat Customs Division has achieved its objective of having an automated customs management system that is efficient, user-friendly, and secured. To date, there has not been any internal or external security breach or issues, associated with ASYCUDAWorld. There are very stringent physical access controls, policies, and procedures in place to restrict unauthorised access to the Montserrat Customs and Revenue Services building, and other Montserrat Customs Division's office sites.

Business Continuity. Customs Division has a disaster plan, which only covers inclement weather; not fire; and although there are designated Fire Marshalls at the MCRS building, there has never been any fire drills or documented fire emergency procedures. We recommend the inclusion of fire response and suppression measures in the disaster plan or create a separate fire contingency response plan.

Application Controls. Although the Montserrat Customs Division has passwords policies in place, they are weak in certain areas. The division should consider the adoption, promotion, and enforcement of stronger passwords policies and practices, to assure enhanced security within all levels of ASYCUDAWorld user accounts. For example, enforced frequent change of passwords; use of alphanumeric characters; and minimum or maximum character limit.

IT Operations. Issues that arise with ASYCUDAWorld are resolved in a relatively short time frame with minimal downtime. However, we found that the consignment process is lengthy and requires custom officers to manually check items that arrive in containers, either at the Port Authority or Airport warehouses, or at a commercial business' premises. This method of verification of the shipments is very tedious and time-consuming, especially during peak periods.

Finally, we are recommending that consideration be given to invest in two (2) Microsoft touch screen tablets that are outfitted with ASYCUDAWorld software and are internet enabled. These tablets would permit the customs officers to have access to ASYCUDAWorld on-the-go resulting in quick tallying and processing of consignments; especially when working off-site.

Audit Conclusion

The Office of the Auditor General determined that the post-implementation benefits of the ASYCUDA software were achieved. ASYCUDAWorld was found to be very secure and robust software. Most of the Application Controls, IT Operations, IT Security, and Business Continuity policies and procedures in place were satisfactory and effective.

However, we found a few notable environmental control issues, concerning excessive heat, water leakage, and a lack of fire suppression equipment, that already has, and still have the potential to, unfavorably affect the daily and or long-term operations at the various office locations.

There is also room for improving the current MCRS disaster plan to include fire control measures; or the possibility of creating a separate strategy regarding fire suppression, prevention, and testing, of the formulated emergency procedures.

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CHAPTER 1   INTRODUCTION

1.   The GoM started using the ASYCUDA software circa 1990; this version of the computerised customs management system was a combined system of manual and computerised processes. There were various versions and updates since 1990, when ASYCUDA was introduced to Montserrat.   ASYCUDA version 2.7 was the latest version before the implementation of web-based version ASYCUDAWorld, in 2010. This version of the software was developed to facilitate the speedy processing of manifest and entries. This upgrade eliminated the dual entry process and also enables commercial businesses and private citizens alike, to input data into the online manifest (or SAD) for quicker processing.

Audit Objectives

2.   This Information Technology (IT) audit focuses on whether the implementation and maintenance of ASYCUDA meets the Montserrat Customs Division's (MCD) business goals and safeguards the Montserrat Customs Division's information assets and maintains data integrity.

Management Responsibility

3.   Management is responsible for ensuring that appropriate policies and effective controls exist. More specifically, management must ensure that policies and controls exist to facilitate IT Operations, Outsourcing, Information Security, and Development & Acquisition; and to guide the development of Business Continuity planning. Management is also responsible for establishing appropriate Application Controls and for ensuring that they function effectively.

Auditor's Responsibility

4.   The auditor's responsibility is to independently express a conclusion on IT Operations, Outsourcing, Information Security, Business Continuity, and Application Controls for the Montserrat Customs Division, based on our audit. Our work was conducted in accordance with ISSAI 100, 5300, and ISAE 3000.   These principles require that we comply with ethical requirements and plan and perform the audit in order to obtain reasonable assurance whether tried and true policies, plans, procedures, and internal controls exist and are functioning effectively, proper records have been and are being kept, and all the necessary information and explanations for the purpose of our audit, has been obtained.

Audit Standards & Guidelines

5.   The standards and guidelines used to assess the IT Operations, Outsourcing, Information Security, Business Continuity, and Application Controls assessments included the use of International Standard of Supreme Audit Institution (ISSAI) 1, 100, 3100, 4100, 5310, COBIT 4.1, FISCAM, and NIST, together with the IDI Handbook for IT Audits.

Audit Scope and Methodology

6.   The study covered the period October 2010 to May 2019 and focused on the examination of the policies, procedures, and controls that guide the operations, outsourcing, physical & environmental, logical access, security and business continuance for the ASYCUDAWorld system.

7.   A combination of techniques were utilised to gather information and assess whether relevant controls existed, were implemented, and if they were effective in ensuring that the MCD's data is protected and that there is continuance of service. These included, but were not limited to, interviewing of the key stakeholders from Montserrat Customs Division, DITES server room staff and other relevant personnel. Other measures included inspection of documents and assets, and issuance of questionnaires in order to gather in-depth information about the ASYCUDAWorld system.

8.   The findings of this report were discussed with the Comptroller of Customs Division, Acting Deputy Comptroller of Customs Division, and the Customs Division System Administrator; their views were taken into consideration when finalising the report.

CHAPTER 2   BACKGROUND

ASYCUDA Overview

9.   ASYCUDA is a computerized customs management system which covers most foreign trade procedures. The system handles manifests and customs declarations, accounting procedures, transit, and suspense procedures. The ASYCUDA program is directed at reforming the customs clearance process. It aims at speeding up customs clearance through the introduction of computerisation and simplification of procedures that minimises administrative costs to the business community and the economies of countries. It also aims at increasing customs revenue, which is often the major contributor to national budgets in most countries, by ensuring that all goods are declared, that duty/tax calculations are correct and that duty/exemptions, preference regimes, etc. are correctly applied and managed. The ASYCUDA software is developed in Geneva by UNCTAD.[1]

United Nations Conference on Trade and Development (UNCTAD)

10.   The United Nations Conference on Trade and Development (UNCTAD), support developing countries to access the benefits of a globalized economy more fairly and effectively. They help equip them to deal with the potential drawbacks of greater economic integration. To do this, they provide analysis, facilitate consensus-building, and offer technical assistance. This helps them to use trade, investment, finance, and technology as vehicles for inclusive and sustainable development.

11.   UNCTAD work mainly with governments, to effectively deal with the magnitude and complexity of meeting the Sustainable Development Goals, and also form partnerships to closer cooperate with the private sector and civil society. Currently, 194 countries that make up their organization.[2]

Montserrat Customs & Revenue Services (MCRS) - Customs Division

12.   The Montserrat Customs and Revenue Service (MCRS) came into being by an Executive Council Decision, dated 14th July 2011 and formulized by way of the Montserrat Customs and Revenue Services (Enabling) Act No. 6 of 2017. The MCRS is mandated by law to collect assigned revenues by way of the taxes and fees and to provide such other assigned service for the Government of Montserrat (GoM). The MCRS is responsible for collecting over 80% of locally generated revenue.

13.   The Montserrat Customs & Excise Department merged with its counterpart, the Inland Revenue Department in 2013, to form the Montserrat Customs and Revenue Service (MCRS).

14.   The Customs Division continues to play a critical role in the economic and social well-being and development of Montserrat. It is responsible for the collection of over one-third of internally-generated revenue and is the first line of defense against the threat of drugs and other social ills.

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[1] *https://asycuda.org/about/*
[2] *https://unctad.org/en/Pages/aboutus.aspx*

Processing of Imported and Exported goods

15.   The Customs Division inspects, examines all goods entering and leaving the country, and assesses and collects any duties or taxes that are liable to be paid. This service is provided primarily at the sea port and airport whilst much of the paperwork is handled at Customs Division Headquarters in Brades. The Department also provides this service at the main Post Office. As part of the examination process, the Department also searches for and seizes restricted and prohibited goods (e.g. firearms or drugs).

Processing of Incoming and Outgoing Travelers

16.   Officers of the Customs Division speak to persons arriving on Montserrat by air or sea, and inspect any items they are bringing with them in order to assess and collect any duties that are liable to be paid. As part of the examination process, the Department also searches for and seizes restricted and prohibited goods (e.g. firearms or drugs).

Collation and Dissemination of Statistics

17.   The Customs Division collects information on international trade and travel.*[3]*

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[3] *http://customs.gov.ms/*

CHAPTER 3   OUTSOURCING

Solicitation

18.   UNCTAD was not solicited directly by the GoM in 1989/1990; the then Montserrat Customs & Excise Department (MCED) was one of the OECS countries that participated in a multi-donored ASYCUDA Project.

19.   The same applies in June 2008, when UNCTAD launched a multi-country programme for the implementation of ASYCUDAWorld in the Customs Administrations of Anguilla, Montserrat, and the Turks & Caicos Islands. The project was funded by the European Commission.4

20.   However, when ASYCUDAWorld was finally launched in November 2010, the then MCED did not have the requisite trained staff to ensure the ongoing support and maintenance of the software. Consequently, the GoM approached UNCTAD, *"...to obtain the assistance of, and UNCTAD has agreed to provide technical and functional support and training, which the MCED require…"[5]* from the AYSCUDA Regional Support Centre for the Americas.

Contractor Monitoring

21.   The Customs Division does not monitor UNCTAD, as the Montserrat ASYCUDA project was closed by UNCTAD when the ASYCUDAWorld version of the software was launched in 2010.

Service Level Agreement (SLA)

22.   An initial, Agreement for the duration of the ASYCUDAWorld upgrade project was drafted and submitted by UNCTAD in August 2013, to the MCD. However, only some of the terms and conditions of the original technical support agreement currently still stand, and for which the Customs Division/OotP is invoiced annually by UNCTAD.

Retaining Business Knowledge

23.   The Customs Division has access to the ASYCUDAWorld software, associated documentation, and training materials, which are UNCTAD's intellectual property. This includes all of their copyrighted names, logos, trademarks, and updates of the system. The department has the perpetual right to use them via a licence, which cannot be extended to another entity or person; unless they obtain written consent from UNCTAD. The Customs Division can photocopy all ASYCUDA associated manuals and training materials.

Data Rights

24.   The Customs Division is allowed to make modifications and create derivative works to the software system, which will be the intellectual property of GoM. These can be distributed with other interested ASYCUDA-user countries, for the common benefit of the GoM.

25.   The existing MCED's application software (at the time), that was going to be integrated into ASYCUDAWorld, including the new application modules and documentation developed by

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[4]   *United Nations Conference on Trade And Development, ASYCUDA World REPORT 2011*

[5]   *Government of Montserrat Agreement, Contract Number: CNTR 2013, ASYCUDA Regional Centre for the Americas - Customs and Excise Department of Montserrat - ASYCUDAWorld support (August 2013)*

the MCED, is the intellectual property of the GoM. This includes the copyright and all other intellectual property rights in any material produced, specific to the GoM prepared under the provisions of the Agreement.

26.   UNCTAD cannot communicate or disclose to any person or other entity, any unpublished or confidential information given, collected, and divulged to UNCTAD by the GoM without their explicit written consent.

CHAPTER 4   DEVELOPMENT & ACQUISITION

28.   There is limited information available pertaining to the previous ASYCUDA projects around 1990 and 2008-2010. The majority of the key participants in the initial project are no longer employed within the Customs Division or with the GoM. Secondly, the relevant project documents were not presented upon request.

29.   Therefore, the following generic information about UNCTAD's standardised development and implementation strategy outlined below was obtained from the ASYCUDA website *https://asycuda.org/*.

ASYCUDAWorld Program

30.   ASYCUDAWorld is the latest version which was introduced by UNCTAD in March 2002. It is compatible with major database management and operating systems; which permits the exchange of documents between local Customs administration and traders, and between different international Customs administrations via the Internet. This program/software is customizable with additional modules that can cover Customs functions such as risk management, transit operations, or new security standards, depending on national priorities.

General

31.   To ensure that the project reached its objectives in an efficient manner, the overall project management fell under the direct control of the Customs department and overall direction by a Steering Group chaired by MCED. The Steering Group that was formed in Montserrat was composed of the Director of DITES, representative(s) from the MCED, and UNCTAD. A National Project Director from Customs was also appointed to be responsible for the day-to-day running of the project, advised, and assisted by UNCTAD experts.

32.   According to the technical support Agreement, there should have been a representative from the Ministry of Finance in the Steering Group; however it was reported that the department was not represented, aside from providing the funding and resources.

How was ASYCUDAWorld Implemented in Montserrat?

33.   When Montserrat took part in the OECS multi-country ASYCUDA project in the early 1990s and the software was subsequently installed, it was continuously upgraded to version 2.7 by UNCTAD. In 2010, MCED agreed with UNCTAD to migrate from ASYCUDA 2.7 to the web-based version ASYCUDAWorld.[6]

Post-Installation Assistance

34.   UNCTAD continues to assist in maintenance of ASYCUDAWorld and provides system updates.

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[6] *United Nations Conference Trade And Development, ASYCUDA World REPORT 2011*

CHAPTER 5   INFORMATION TECHNOLOGY OPERATIONS

Problem and Incident Management

35.   There are protocols in place should issues arise with ASYCUDAWorld, such as using the system error or audit trail logs for troubleshooting. In addition, a handwritten log book is maintained for the troubleshooting tasks performed for both Custom Officers and external users. Depending on the issue that arises, the System Administrator (SA) will first attempt to address the problem; and depending on the complexity and urgency, assistance is further sought from UNCTAD helpdesk technician via telecommunication after receiving the Comptroller's authorization.

36.   To date, there has not been any major problem subsequent to the upgrade of the current version, ASYCUDAWorld. The SA has only been required to address minor technical issues such as passwords and codes changes, server and website issues, private sector businesses complaints, errors found and adjustments made to entries.

Change Management

37.   UNCTAD performs annual onsite updates to the ASYCUDAWorld software and server, in Montserrat. This maintenance is a patch update for error corrections and minor changes. The organisation will inform the Customs Division, via email, of their intention to visit and perform the upgrades. The software auto-emails all the external users (brokers, commercial businesses, and private citizens) one minute prior to the impending update. The updates are seamless and do not cause any disruption to the service. Downtime for the update can take as long as one minute, and for the server it can take as long as one hour. The user documentation is not updated after any change(s) is made by UNCTAD; the information remains the same.

38.   The Customs Division and external users cannot make changes to the software; they can make suggestions to UNCTAD's helpdesk, which they carbon copy to UNCTAD's Regional Head Office. Depending on the changes being requested or suggested, UNCTAD may take them into consideration when making updates to the software. However, the Customs Division's SA can make amendments to (i) the Tariffs, (ii) the layout of the user accounts, and (iii) the log-in pages.

39.   The following changes were identified by the ASYCUDA users and were resolved by UNCTAD. For example, (a) character limit for data fields were too short and they were lengthened and the number of items placed on entry, and the number of Bill of Laden for a single manifest, were increased.

40.   At the time of the audit, the most recent changes were in May 2014, when ASYCUDAWorld was upgraded from version 4.1 to 4.2. UNCTAD's Regional Technical Advisor worked in conjunction with Customs Division's and DITES's technical personnel for two weeks. The new upgrade added more features and services, Training sessions were also held with a number of ASYCUDA users to expose them to the new online interface.[7]

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[7] *https://www.themontserratreporter.com/customs-complete-assycuda-training/*

Observations, Findings, and Recommendations

41.   Problems that arise with ASYCUDAWorld are usually resolved within 2 - 5 mins to 24 hours, depending on the level of severity. The longest downtime that ASYCUDA was not accessible for was approximately two weeks when the server crashed circa 2012/2013.

42.   There is one Senior Customs Officer who is the dedicated (unofficial) System Administrator for ASYCUDAWorld; this officer is not officially appointed, nor are his SA duties specified in his job description. Additionally, there is another Senior Customs Officer who is a provisional SA and has most of the administrative rights. There is also a Junior Customs Officer who is a second interim IT Officer with limited assigned admin privileges. These backup IT Officers' duties are not defined in their job descriptions or the MCRS Organisational Chart.

43.   Senior Management has indicated that ideally there should be three (3) dedicated IT personnel to perform the existing and future IT activities. Therefore, we are recommending that these three roles and duties be regularised in their job descriptions and included on the Organisational Chart.

44.   Training of new Customs Division officers and clients in the use of ASYCUDAWorld is done in-house by the System Administrator. Each is issued a user manual and other related documentation.

45.   Although ASYCUDAWorld is a paperless version, hard copies of entries are still being kept on file by MCD for the following reasons:

(a)   Brokers, carriers or private shippers can access and input data into ASYCUDAWorld from their internet-enabled desktop computer or laptop. They also have the option of using the desktop computer the MCRS Customs Division/ASYCUDA office, at GoM H.Q. in Brades. The paperless feature in ASYCUDAWorld version 4.2 includes the scanning of invoices into the system by the importers and agents.

(b)   It was noted that some brokers/importers/agents do not have their own scanning equipment and were not scanning and uploading their invoices or purchase orders into the system. They instead take the documents to the MCD ASYCUDA office at the Government Headquarters, to be scanned and uploaded. The MCD does not discourage this practice, as there were issues with persons falsifying documents and the Division prefers to have hard copies of these documents, as evidence.

(c)   ASYCUDAWorld uses *.bmp* format (bitmap) for users to upload the scanned supporting documents as bitmap format saves space on the server. However, complaints were made that this format distorts the information contained in the scanned documents. Larger image files, for example, *.pdf, .jpeg,* which does not distort the information, would take up too much space on the ASYCUDA server.

46.   We are therefore suggesting that MCD consider increasing their ASYCUDA server's storage capacity.

47.   The consignment process can be very time-consuming; especially during peak periods of the year. Customs officers are required to manually check everything that comes inside shipping containers, on the ferry, and at the airport; and in some instances, at business premises.

48.   The MCD should consider, as a future venture, investing in two (2) Microsoft touch screen tablets that are outfitted with ASYCUDAWorld software and are internet-enabled. These tablets would permit the Customs officers to have access to ASYCUDAWorld on-the-go, which has the potential to speed up the tallying and processing of consignments; especially when they have to go off-site to the local businesses. However, this endeavor would be contingent on improved local internet connectivity services.

49.   To date, most of the changes that have occurred are error related, for instance, some of the items on an entry will be processed incorrectly; however, these mistakes do not happen very often.

50.   Around 2016, MCD had to contact the UNCTAD helpdesk, as they were having issues with one of the SQL server platform licenses, for a few days. The license had expired, and the SA was unable to upload the renewed license on the ASYCUDAWorld server platform. However, this incident did not affect the ASYCUDAWorld operations.

CHAPTER 6   INFORMATION SECURITY

Risk Assessment

51.   Although it was a requirement by UNCTAD for risk assessments to be performed by the various agencies before the ASYCUDA software was implemented, there was no knowledge, or record, of a Risk Assessment being conducted by the MCD as required in the technical support agreement provided by UNCTAD.

Physical Access Controls

52.   The MCRS building and other MCD's office sites, have very stringent physical access controls, polices, and procedures in place to restrict unauthorised access to controlled areas or facilities. All MCD staff, visitors, and stakeholders must adhere to these procedures; for example, all Customs Officers are required to have photo ID proximity key cards for access; all non-MCD staff, must sign in or out the visitors log book.

Environmental Controls

53.   Environmental controls are measures that organisations implement to prevent or mitigate potential damage to their facilities and or interruptions in service.[8] From our inspection of the MCRS building and the various other MCD's office sites, it was found that the majority of the workplace environments, were severely lacking in proper Environmental controls policies and procedures, which resulted in a number of issues as follows:

Customs Division, MCRS Building, GoM H.Q., Brades

54.   The MCRS building was completed in 2014; however, it remained unoccupied until 2016 when the Inland Revenue and Customs Division departments, moved in.

55.   From our inspection, we noted visible signs of water seepage at the baseboards of the ground floor office, where the water pools on the floor whenever it rains. There are also noticeable signs of leakage from the main roof, evident by the brown water stains on the white fibre board ceiling tiles. The problem still persisted although the building contractor had sprayed a foam sealer on the suspected areas.

56.   The windows are tinted single hung, impact windows, covered by vertical blinds and privacy boards to keep out direct sunlight. There is evidence that some of the windows are defective.

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[8] *WGITA-IDI IT Audit Handbook 2004*
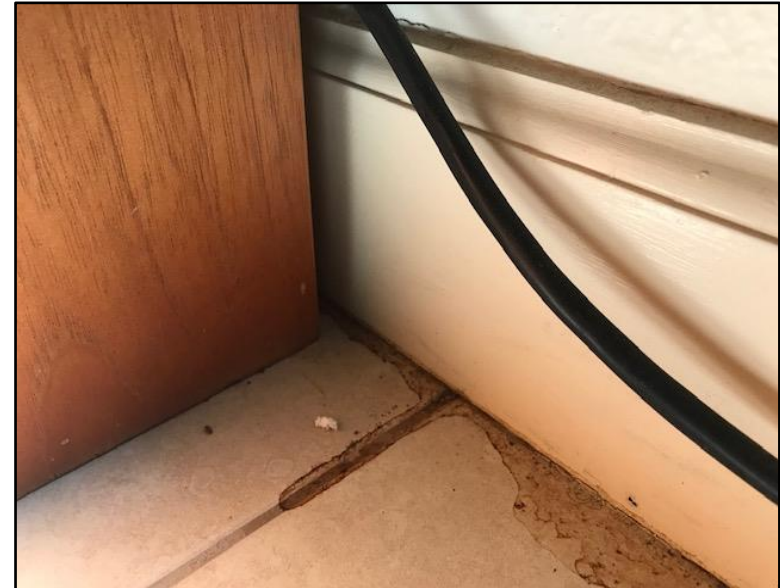
Figures A & B - Evidence of water seepage at the baseboards in MCD workspace

Figures C & D - Defective windows and signs of water damage

Figures E, D, F, & G - Evidence of water seepage and suspected areas of leakage in the main roof

57.   The entire building has central air conditioning; each work area has its own temperature thermostat. It was reported by some of the Customs staff, that the infrequent maintenance of the AC units and vents is causing a considerable amount of dust particles to be distributed inside some of MCD's offices, on a daily basis. A very noticeable, thick, coat of dust was observed on some of the office desks, and computer equipment.
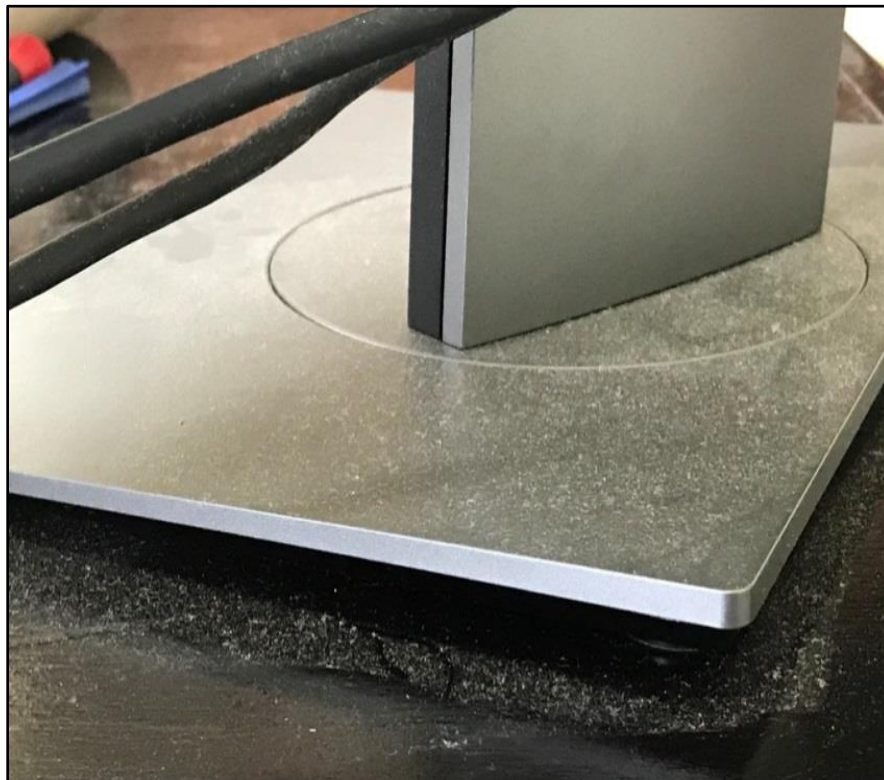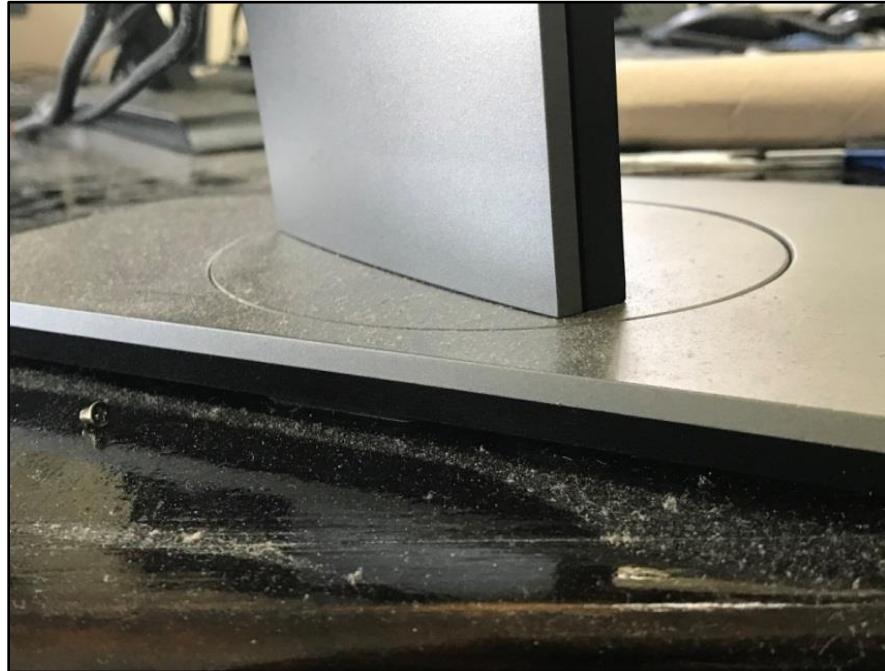
Figures H & I - Evidence of dust particles from A/C vents

58.   All of their computers and office equipment are plugged into operational uninterruptible power supplies (UPSs). There is also a facility for the future installation of a central UPS.

Figure J - Central UPS Facility

59.   The entire MCRS building is outfitted with a fire alarm system; however, it has not been commissioned or tested.

Customs Division Section, Port Authority Building, Little Bay

60.   The Customs Division is not affected by flooding or adverse weather as the Port Authority's compound has an adequate drainage system and there is regular clearing of debris from the storm drains. In addition, all windows are protected with metal hurricane shutters.

61.   The Customs Division office area is fully air conditioned with the exception of one room. A large standing fan was provided but it was not very effective in cooling the room.

62.   Additionally, there are visible signs of prolonged water leakage and damage on the white ceiling tiles in the general office area and in the Senior Customs Division Officer's room. There is also evidence of water damage on a small section of the terrazzo floor tiles in Senior Officer's space. Although the Montserrat Port Authority's roof was recently repaired, the problem still persisted but to a lesser degree in the Senior Customs Division officer's room.

Figures K & L - Evidence of water seepage and damage to office roof

63.   We noted the existence of a dry powder fire extinguisher and a CO_2 fire extinguisher. However, there are no fire alarms or smoke detectors installed in the ceiling in the Customs Division section.

64.   The UPSs at the Customs Division are not fully operational as the batteries no longer work for uninterruptible power supply; they are currently being used as power surge protectors. The Montserrat Port Authority is equipped with a backup electricity generation supply that extends to the Customs Division to ensure Business Continuity.

Customs Division Section, John A Osborne Airport Building, Geralds

65.   Our physical examination of the airport building revealed that it is not adequately air conditioned which result in intense heat for employees and passengers. The intense heat is an issue especially in the offices of the Customs Division. The existing air conditioner located in the Senior Customs Office space is inoperable and the replacement standing fans do not alleviate the heat. There are also several ceiling fans throughout the arrival area, but they are not being utilised due to their instability.

66.   At the time of the audit, there were only four computers within the Customs Division and it was pointed out that there should be six. We were informed that the excessive heat in the arrival area previously destroyed over ten (10) computers and coincidentally one of the four computers in the Immigration Unit had stopped working at the time of our inspection. Furthermore, the sole working computer at the Customs examination benches was reportedly not working properly.

67.   The working computers are connected to UPSs and the airport backup generator provides uninterrupted power in the event of a power failure.

68.   There is one CO_2 fire extinguisher located in arrival lounge; but the entire airport building is outfitted with working smoke detectors and a recently installed operational fire alarm system.

69.   There is the risk that the arrival area is prone to flooding as the drainage system on the exterior is inadequate. There is only one grilled storm drain located at the edge of the tarmac near to the arrival lounge and baggage claim area. Therefore, when there is heavy rainfall,

water settles on the surrounding grounds adjacent to the arrival lounge windows, and overflows into the baggage claim section.

DITES Server Room, GoM H.Q., Brades

70.   The server room is a solid concrete walled, windowless room that is cooled by air conditioning units kept at an optimal temperature for cooling the server equipment. It is relatively dust free and the server equipment is not exposed to any direct sunlight that could cause overheating.

71.   At the time of the audit, there was no fire extinguisher in this room as the Fire and Rescue Unit removed it for testing with the intention of providing a replacement.

Customs Division, General Post Office, GoM H.Q., Brades

72.   The entire Post Office is air conditioned and outfitted with smoke detectors and a CO_2 fire extinguisher. There was no sign of leakage, moisture, or water damage in the Customs Division parcel/package section.

73.   However, it was found that the Customs Division's computer and printer were not connected to a UPS but were only connected to a power surge protector.

Observations, Findings and Recommendations

74.   **Revision of MCRS Hurricane Plan**. The Customs Division has a Hurricane plan, which covers inclement weather but not fire. Although there are designated Fire Marshalls at the MCRS building there have never been any fire drills or documented emergency procedures, in the event of a fire.

75.   Therefore, we recommend that the current hurricane plan should be revised to include fire response and suppression measures. There is also the option of creating a separate strategy regarding fire suppression and prevention, which includes the periodic testing of these formulated emergency procedures.

76.   **Inclusion of Customs Officers in Airport and Port Authority Fire Drills.** The Airport and Port Authority both have made provisions in their disaster preparedness/recovery plans if there is a fire. They conduct periodic fire drills; however, these plans do not include the Customs Division officers that work on the respective premises.

77.   Consequently, we are advising the MCD to request the inclusion of Customs Officers in their disaster preparedness/recovery drills, response time, and efficiency testing activities.

78.   **Uninterrupted Power Supply (UPS).** During the Environmental Controls inspection of the MCD office space at the Montserrat Port Authority, it was noted that all of the UPSs were not fully functional. They were being used as heavy duty power strips.

79.   We therefore recommend that:

- All of these partly functional UPS's, are replaced with fully operational heavy duty UPSs.
- Efforts should be made to complete the installation of the central UPS.

80. **Health and Safety.** The maintenance of all GoM Headquarters building falls under the Office of the Deputy Governor. However, due to financial constraints, the quarterly maintenance schedule of all the air conditioning units has been reduced to only high priority cases or when deemed necessary. The constant circulation of dust particles through the A/C units at the MCRS building, can cause Health and Safety issues that have the potential to cause harm to MCD staff as follows:

- Lung and nasal cancer
- Reduced lung functions
- Irritation and inflammatory injuries of the eyes and skin
- Allergic responses such as asthma[9,10]

81. According to Simply Air Conditioning London, "…The office needs proper ventilation with clean air drawn from the outside fresh air to be circulated throughout the office building. This ventilation is key in any office air conditioning system…"; "…dusty environments may impact on the health of office workers…" [11]

82. Therefore, we strongly recommend that efforts be made to have the AC unit filters and vents cleaned on a regular basis. This dust issue can adversely affect some MCD staff after long term exposure; or members of the general public, who have pre-existing medical conditions that can be worsened by the dust.

83. **Upgrade of DITES Server Room Environmental Controls.** DITES have future plans to upgrade their existing server room environmental controls by procuring the following supplementary equipment:

- central UPS
- air conditioning unit
- an additional backup generator to the two (2) backup generators already in place.

84. At the time of the audit, in the DITES server room, it was discovered that the sole fire extinguisher in the room, was removed by the Fire and Rescue Unit during routine testing of the cylinder; to date, it has not been replaced.

85. We recommend greater efforts be made to ensure that a dry powder or CO_2 fire extinguisher is re-installed to the server room.

86. **Airport Environmental Control Issues.** There is an excessive heat issue in the passenger arrival area at the John A Osborne airport that adversely affects the MCD's computer equipment, employees, and passengers.

87. In addition to the installation of air conditioners, consideration should be given to complete closure of the baggage claim area with an opening in the wall. This modified baggage opening should be outfitted with flaps, to help prevent the cool air from escaping to the outside as indicated below.

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[9] *PREVENTION AND CONTROL EXCHANGE (PACE), HAZARD PREVENTION AND CONTROL IN THE WORK ENVIRONMENT: AIRBORNE DUST, Occupational and Environmental Health Department of Protection of the Human Environment World Health*
[10] *http://www.who.int/occupational_health/publications/airdust/en/*
[11] *https://simplyairconditioninglondon.co.uk/office-air-conditioning-health-safety/*

Figure M - Example of recommended airport standard Baggage Claim partition

88.   At the time of this audit, the Montserrat Port Authority was in the tendering process for the renovation of Montserrat Port Authority offices and warehouse. The Customs Division would be temporarily housed in converted containers when the project commences.

CHAPTER 7   APPLICATION CONTROLS

Registration

89.   For persons or local businesses that wish to use ASYCUDAWorld, they are required to make a formal request to the Comptroller of Customs Division stating the reason for wanting to access the software. The Comptroller invites the applicants for a screening interview; once successful they are required to complete an authorisation form; the authorisation forms are used by the SA, to create the applicants' user accounts. They are contacted at a later date to attend a training session conducted by the SA, on the use of ASYCUDAWorld.

Types of User Accounts

90.   The software classifies the user accounts to ensure that information inputted into ASYCUDAWorld is entered by authorised personnel. The user accounts, falls under the following categories, which have specific roles and privileges. However, some of them are not necessary for Montserrat's Customs manifest and declaration purposes:

A.   Private Sector Users

- **Brokers** - perform data entries for goods and clearance
- **Carriers** (shipping agent) - perform data entries for manifest
- **Carrier/Broker** - user accounts privileges for this type of account are merged as some businesses offer dual services (i.e. Import/Export processing)

B.   GoM Internal Users

- **Auditors** - generate reports for review such as cashier report, entries and manifest SAD forms and also review goods and clearance data entries
- **Statistics** - generate Statistical Data reports
- **Chief Examiner** - used for assigning MCD officers duties regarding clearing/releasing of entries; function is currently being carried out by a 3 - 4 striped Junior Customs Officers
- **Port** - creation of Exit Note, which logs item removal from the warehouse. This option is not utilised as the Port Authority has a system for **Exit of Goods** in place.

C.   Cashier

The Cashier pays all entries through ASYCUDAWorld.

D.   Customs

Customs Officers can perform the following duties as per their rank:

- **Junior stripe (1 - 2)** - examining and verifying forms
- **Junior stripe (3 - 4)** - same functions as above; but have the cashing module and can also review/make inquiry reports on entries

E. **Admin**

Under the Admin account, user can generate reports; authorise refunds, concession, and exemptions; adjust the currency rates in ASYCUDA and verify CARICOM Certified Documents.

F. **System Admin**

The System Admin account gives the SA full control of all functions and processes within ASYCUDAWorld; for example, the creation of user accounts; setting of roles and permission for user accounts; resetting of user ID passwords; entering of tariff data into ASYCUDA and modification of entries; and system maintenance.

Input Controls

Single Administrative Document (SAD) Forms

91.	The private sector users (brokers, carriers, private importer) must first input the manifest data (number of items, freight, shipping, etc.) into the online Single Administrative Document (SAD) forms. To make certain that the correct information is being entered into ASYCUDAWorld, the software has data entry, and field checks; if the information is typed in or entered incorrectly into the fields, they will turn red and the software will not validate the information typed in. An error message dialogue box will pop up, indicating the field where there is an error, for example, incorrect weight. The user cannot proceed until the correction is made.

Statutory Rules & Orders (SRO) Notes & Exemptions

92.	Statutory Rules & Orders (SRO) notes and exemptions that are passed in Cabinet are then verified and approved by Customs Division; the items are input in ASYCUDAWorld by the broker or importer via Customs Procedure Code (CPC). The person completing the SAD form selects a specific code, from a drop down menu.

Processing Controls

Manifested Cargo

93.	Subsequent to the arrival of a carrier or vessel, a manifest and freight documents are delivered to the shipping agent. The shipping agent or a broker enters the manifest information into ASYCUDAWorld; this manifest can be pre-entered before the carrier or vessel arrives as Customs Division requires 24 - 48 hours notification, before arrival and an indication of the consignment on board. Once the manifest information is entered in the manifest module, the Customs Division officers access the information for review and to physically tally the manifested items at the relevant ports of entry.

94.	The customer has to provide their proof of purchase or invoice from the merchant, to the broker, who will prepare customs entries; the customer or the broker will then take the completed documentation to the port of entry where they would pay for the goods.

95.	Customs Officers will run a selectivity module in ASYCUDAWorld in order to ascertain which item/goods are to be examined for verification purposes. In some cases, the broker or customer is sent to the chief examiner for a valuation review as the items may not be properly

classified or valued, etc.   Once the Customs officer is satisfied, they will provide the broker/customer, with a cargo release form.

Exemption and/or Reduction of Duty

(a)   GoM Ministries/Departments

96.   GoM Ministries or Departments are automatically exempted from paying duty and/or tax on all items and goods imported. They are, however, required to submit exemption forms that are authorised by the relevant Permanent Secretaries (PS) or Heads of Department (HoDs). They are required to indicate on the forms the purpose for the imported items.

(b)   Private Sector Businesses & Importers

97.   Applicants are entitled to request exemption from paying duty or tax. However, customers must obtain authorisation for concession from the various government departments and bodies after seeking approval from Cabinet via an SR&O. The Customs Division will verify the SROs, against the documents submitted by the customers. Items can also be exempt under the Second Schedule for small local businesses, farmers, fishermen, and so forth.

98.   Returning Montserratians importing items are required to obtain authorisation from the relevant Ministry/body and must formally apply to the Comptroller, for exemption of certain items. The Comptroller conducts an interview to ascertain whether or not the applicant qualifies for exemption or reduction of duty before granting an approval. This letter, copy of invoices, and/or Bill of Sight (for used items) is attached to their SAD entry, and submitted to the Customs Division at the relevant port of entry for processing and payment.

Output Controls

Re-Classification of Items/Goods

99.   When the Bill of Laden information is entered into ASYCUDAWorld, the data is stored in SAD forms. The system uses a criterion that automatically performs a random selection of the data, and places them into different categories that require specific action by the Customs officers as follows:

- **RED** - full examination or item/goods required
- **YELLOW** - no examination of item/goods; documentation check only
- **GREEN** - entries are cleared or completed
- **BLUE** - post audit to review random selected Bills of Laden data entered into ASYCUDAWorld by external users as there may be:
  - (i) error(s), or
  - (ii) the importer may be a person of interest.

100.   This may result in the re-classification of items/goods, issue of refunds to customers, or collection of additional fees, by Customs Division.

Logical Access Controls

Remote Access to Servers

101.   ASYCUDAWorld is housed on two servers, which runs on an Oracle platform; there is also a virtual environment (cluster continuous) that runs the ASYCUDAWorld software. Access to these servers is only possible via a Virtual Private Network (VPN) user account, which was specifically created whether they are onsite, or log on remotely**.**

102.   Remote access to these servers by UNCTAD's regional helpdesk support personnel is only possible when permission is granted by DITES and the use of unique user IDs and passwords that are generated and issued by DITES.

Passwords

103.   Access into ASYCUDAWorld, requires unique user IDs and passwords. When user's first login to their user accounts with their unique user ID and generic default password that is issued by the Customs Division System Administrator, the system forces the new user to change this generic password.

104.   The MCD has the following user account password policies and practices in place:

- There is no set minimum or maximum character limit for passwords; however users are encouraged to use at least 6 characters
- Passwords do not have to be alphanumeric but they are case-sensitive
- Passwords do not expire and there is no password history; therefore they can be used repeatedly
- If a password is entered incorrectly three times, the user will be locked out of their account and an error message will pop up. The user will not be able to re-enter their password until after two minutes. An automatic system generated email is also sent to the user account as a security measure
- Only the System Administrator can reset user account passwords
- Users are encouraged not to write down or to give out their passwords.

Audit Logs/Trials

105.   Once a user logs into their accounts, ASYCUDAWorld generates logs of their user details and of their activities; for example, user name, time, date, transactions, changes made, errors that occurred, etc.

106.   In addition, DITES have set up firewalls that create audit trail logs each time UNCTAD personnel remotely accesses the servers.

Observations, Findings and Recommendations

107.   **Poor Password Policies and Procedures.** The majority of the Application Controls policies and procedures that the Montserrat Customs Division has in place are adequate, with the exception of a few passwords security practices, which are quite weak.

108.   Therefore, we recommend that the department considers the adoption, promotion, and enforcement of additional passwords policies to make certain there is enhanced security within all levels of ASYCUDAWorld user accounts. For example, enforced frequent change of passwords; use of alphanumeric characters; and minimum/maximum character limits.

CHAPTER 8   BUSINESS CONTINUITY & DISASTER RECOVERY

Business Continuity or Disaster Recovery Plan

109.   The MCRS has a Disaster Plan that is used to plan and prepare for inclement weather. It details the management structure and chain of delegation of the senior supervisors, who will assist management with the supervision of staff; lead on specific tasks; and ensure that arrangements are in place for whatever assignment(s) they are responsible for executing before, during, and after a hurricane. This Disaster/Hurricane Plan is updated annually.

110.   The plan covers the reinforcing and safeguarding of all of the Custom Division's and Inland Revenue's operational locations and related resources to include, office equipment, files, MCRS building and other MCD office sites, goods & chattels and detention facilities. It also provides for the securing of external equipment such as enclosure paneling, mounted cameras, and vehicles.

111.   DITES is responsible for performing regular backups for the ASYCUDAWorld data for recovery purposes. There are two types of backups executed by DITES:

- Short-term or daily incremental backups of any changes or new information that was inserted throughout the working day.
- Full monthly system backups on mass storage drivers and tape drives.

112.   Backups of ASYCUDAWorld data, is carried out on the servers at DITES, and also executed on servers at an alternate site in the event of a natural disaster or state of emergency. This alternate or hot site is the Montserrat Volcano Observatory (MVO) where there are duplicate servers. Backup tapes are also stored offsite at the MVO.

113.   However, in the event of a hurricane, MCRS is also *"…responsible for backing up their own files, especially of information that is kept on specific computers…"[12]*

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[12] *MCRS DISASTER/HURRICANE PLAN, Updated Annually*

CHAPTER 10   CONCLUSION

114.   From this Information Technology (IT) audit, we the Office of the Auditor General (OAG) concluded that the majority of the objectives were achieved. ASYCUDAWorld was found to be secured and robust software and the majority of the Application Controls, IT Operations, IT Security, and Business Continuity/Disaster Recovery policies and procedures in place are satisfactory and effective.

115.   The Environmental control issues concerning excessive heat, water leakage, and a lack of fire suppression equipment, still have the potential to unfavorably affect the daily and or long-term operations at the various Montserrat Customs Division locations and should be addressed. Attention should also be paid to the development and implementation of fire suppression, control, and contingency strategies; including the regular testing of these formulated emergency procedures, training of Custom Officers, and so on.

CHAPTER 11   MANAGEMENT RESPONSE

The Director General of MCRS and the Comptroller of Customs Division did not have any remarks in response to our observations, findings, and recommendations.

APPENDICES

APPENDIX I - Montserrat Customs and Revenue Service (MCRS) Organizational Chart

MONTSERRAT CUSTOMS AND REVENUE SERVICE (MCRS) 50 STAFF

Director General

Comptroller of the Inland Revenue Division
[+ 17 Staff]

- **Deputy Comptroller** - *IRD Operations, Assessments and Compliance- Income Tax, Company Tax, Withholding Tax, Property Tax, Insurance Levy and Hotel Occupancy Tax.*

- One Inspector of Tax II
- One Inspector of Tax I
- Two Revenue Officers
- Three Revenue Assistants
- One Bailiff
- One File Clerk

- **Audit Manager** - *Audit services for all assessments and submissions relating to Returns for Income Tax, Company Tax, Withholding Tax, Property Tax, Property Tax, Insurance Levy and Hotel Occupancy Tax.*

- One Inspector of Tax II
- One Inspector of Tax I
- One Revenue Officer

- **Valuation Officer** - *To carry out Valuation Duties in accordance with the Property tax Act, by Order of the Court, For Gom purchase or acquisition, and for the purposed of the Stamp Duty Act*

- One Valuation Assistant

- **Tax Information Exchange Officer-** *Support the Competent Officer (Comptroller IRD) in carrying out the duties as outlined in the Tax Information Exchange Act., Research and respond to all requests for Tax Information Exchange.*

Comptroller of the Customs Division
[+24 Staff]

- **Deputy Comptroller-** *Responsible for General operations- Processing all Approved Undertakings, ASYCUDA, Documentation, Parcel Post & Customs Data.*

- One Customs Officer II
- One Data Entry Clerk

Senior Customs Officer- *Responsible for Port Cargo Operations, Processing all arriving and departing Cargo at the Little Bay Port.*

- One Customs Officer III
- Two Customs Officer II
- One Customs Officer I
- One Customs Clerk
- One Cashier

- **Senior Customs Officer-** *Responsible for Border matters, Airport passenger processing, Air cargo operations, Ferry passenger operations, IBSU Pilot Project*

- Two Customs Officer III
- Three Customs Officer II
- Two Customs Officer I

- **Senior Customs Officer-** *Responsible for Customs Enforcement, Investigations, Local and regional Intelligence coordination, Seizures & MCRS Detain Pounds.*

- One Customs Officer I

- **Senior Customs Officer -** *Responsible for Vetting all Customs Entries, Conducting Customs Post Audit, Customs records, Bonded Warehouses, Plymouth Port Operations, Mining Exports and Royalties collections.*

- One Customs Officer III
- Two Customs Officer I

MCRS Business Manager
[+ 2 Staff]

- **Senior Clerical Officer** *Support the Business Manager in dealing with department's administrative, staffing, financial matters, asset and stores procurement and management*

- **Office Attendant -** *Responsible for filing completed Customs Entries, department's collection and delivery of mails to other departments, the banks, the port and airport stations*

MCRS Senior Systems Administrator
[+ 2 Staff]

- **One** *System Administrator - Responsible for- ASYCUDA- Maintenance and upkeep, SailClear- Vessel Tracking System, Advance Cargo System (ACS), Advance Passenger System (APIS),*

- **One** *System Administrator - Responsible for- Property Tax Data base, IT System used to for Tax information Exchange, New Tax Administration Computer System for the administration of Income Tax and Company and MCRS Website*

APPENDIX II - Montserrat Customs and Revenue Service (MCRS) Staffing Resources

MCRS STAFFING RESOURCES

As Updated by Cabinet Decision # 262/2018

APPROVED STAFFING RESOURCES for MCRS							
STAFF POSTS	Scale	Count	Trav.	Tel	Prof	Ent	Cash
Director General	R5	1	√	√	√	√	
Comptrollers	R6	2	√	√	√	√	
Deputy Comptrollers	R17-13	2	√				
Snr. Systems Administrator	R17 -13	1	√	√	1,200		
Valuation Officer	R22-16	1	√		1,200		
Audit Manager	R22-16	1	√				
Tax Information Exchange Officer	R22-16	1					
Business Manager	R22-16	1					
Customs Officer Snr	R22-18	4					
Systems Administrator	R28- 22	2		√			
Valuation Assistant	R28-22	1	√				
Inspector of Taxes II	R28-22	2	√				
Customs Officer III	R28-22	4					
Bailiff	R28-22	1	√				
Inspector of Taxes I	R33-29	2	√				
Customs Officer II	R33-29	6					
Clerical Officer (Snr)	R33-29	1					
Cashier	R33-29	1					√
Revenue Officers	R46-34	3					
Data Entry Clerk	R46-34	1					
Revenue Assistants	R46-38	3					
Customs Officer I	R48-34	6					
Customs Clerk	R48-34	1					
Filing Clerk	R51-45	1					
Office Attendant	R51-45	1	Mileage				
TOTAL		50					

Other approved allowances for officers deployed to work in Zone "V" (Exclusion Zone) relating to landing or loading of goods from the Plymouth Jetty.

    i.   Hazard Allowance - $100.00 per assignment as Per Cabinet Decision 221/ 2018
    ii.   Dirty Clothes Allowance - $25.00 per assignment
    iii.   Meal Allowance - $25.00 per assignment

APPENDIX III - Flowcharts of ASYCUDAWORLD Modules

ASYCUDA CARRIER MANIFEST

```
      ┌─────────┐
      │  START  │
      └────┬────┘
           ▼
  ┌──────────────────┐
  │     MANIFEST     │
  │  CREATE & STORE  │
  │ MANIFEST GENERAL │
  │     SEGMENT      │
  └────────┬─────────┘
           ▼
  ┌──────────────────┐
  │   VERIFICATION   │
  └────────┬─────────┘
           ▼
  ┌──────────────────┐
  │     REGISTER     │
  └────────┬─────────┘
           ▼
  ┌──────────────────┐
  │ VALIDATE MANIFEST│
  └────────┬─────────┘
           ▼
      ┌─────────┐
      │   END   │
      └─────────┘
```

General Overview of ASYCUDA User Process

```
    ┌─────────┐                              ┌──────────────────┐
    │  USERS  │◄─────────────────────────────│ CLEARANCE OF GOODS│
    └────┬────┘                              └─────────▲────────┘
         │                                             │
         ▼                                             │
  ┌─────────────┐        ◇ EXAMINATION                 │
  │   ASYCUDA   │        ◇ OF GOODS ┄┄┄┄┄┄┄┄┄┄►        │
  └──────▲──────┘        ◇         ┊                    │
         │                         ┊                    │
         ▼                         ▼                    │
  ┌─────────────┐              ┌──────────┐             │
  │    MCRS     │─────────────►│  PAYMENT │─────────────┘
  │CUSTOMS DIVISION│           └──────────┘
  └─────────────┘
```
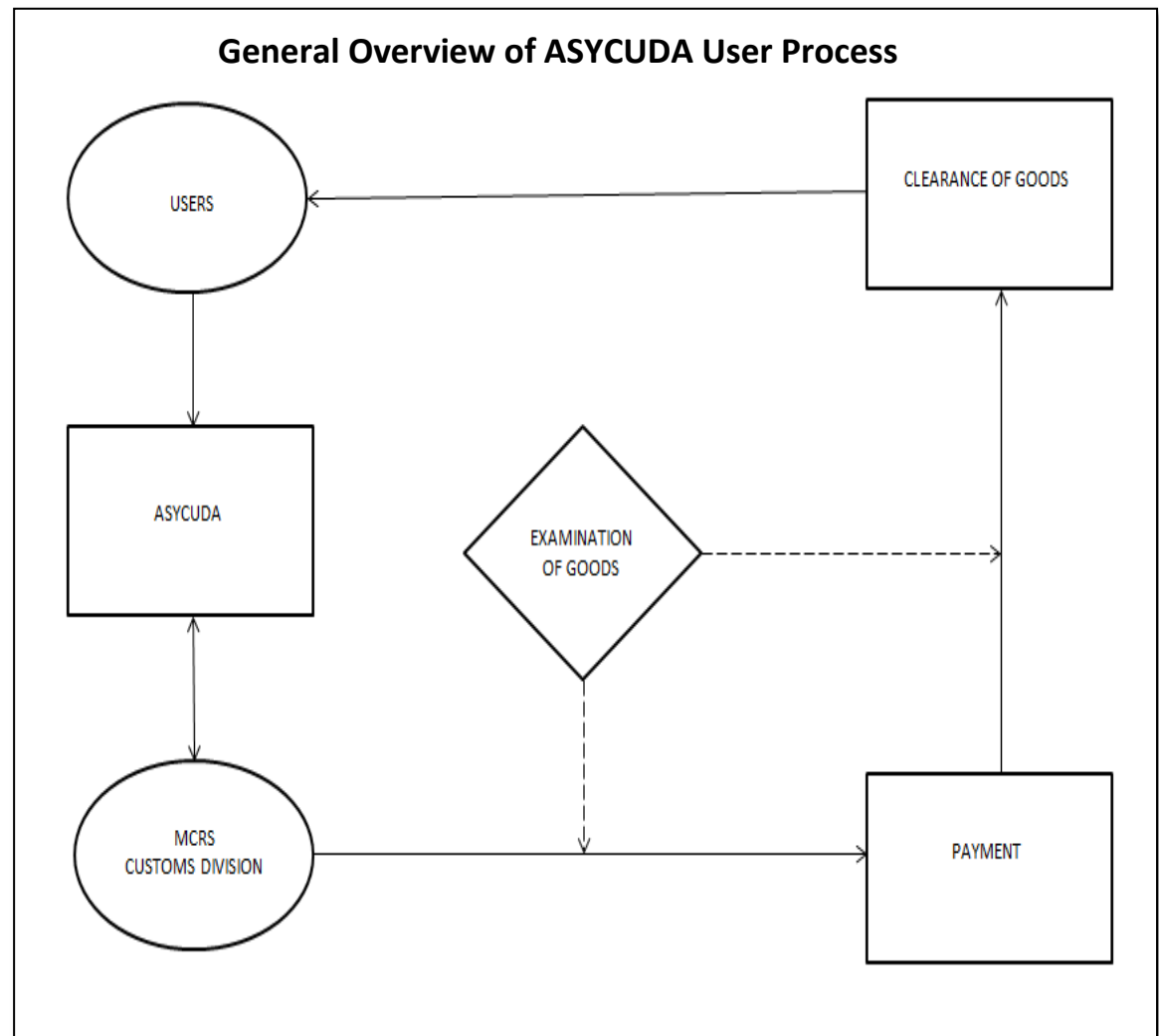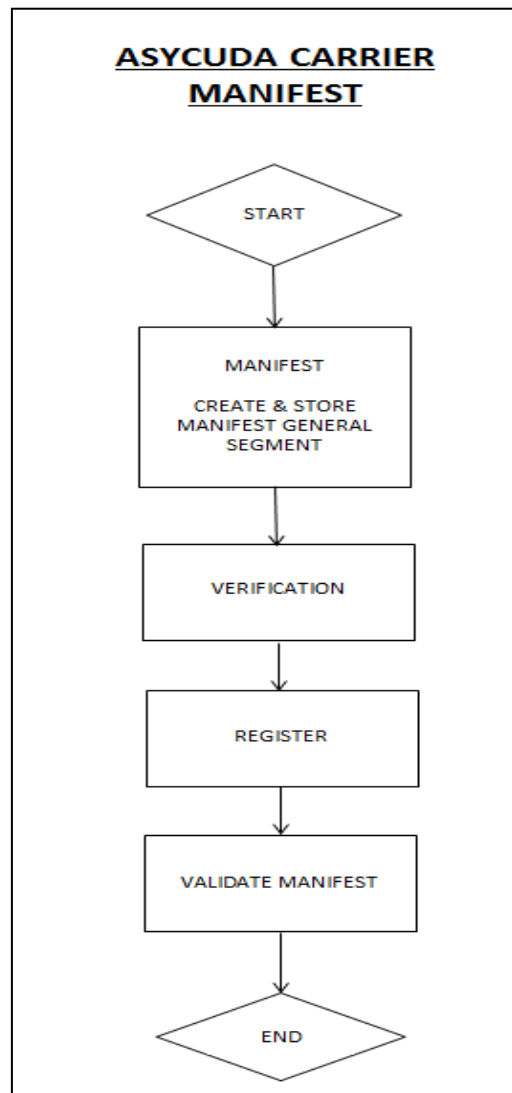
APPENDIX IV - Adhoc Pictures of MCD Offices at the Port Authority & MCRS Buildings