ANNEX 1:

MEMORANDUM OF AGREEMENT BETWEEN DOTC AND DND FOR THE REPLICATION OF THE PAF FACILITIES

MEMORANDUM OF AGREEMENT

KNOW ALL MEN BY THESE PRESENTS

This **AGREEMENT,** entered into by and between:

DEPARTMENT OF NATIONAL DEFENSE – ARMED FORCES OF THE PHILIPPINES, government agencies organized under the laws of the Philippines with principal offices at Camp General Emilio Aguinaldo, Quezon City, herein represented by the Secretary of National Defense, **Hon. VOLTAIRE T. GAZMIN**, hereinafter referred to as "**DND-PAF**".

– and –

DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS, a government agency organized by and existing under the laws of the Philippines with principal office at Columbia Tower, Ortigas Avenue, Mandaluyong City and **MACTAN-CEBU INTERNATIONAL AIRPORT AUTHORITY,** a government corporation organized and existing under Republic Act No. 6958 with principal office at Mactan International Airport, Lapu-Lapu City, Province of Cebu, both entities being herein represented by the DOTC Secretary and Chairman of the MCIAA Board, **Hon. JOSEPH EMILIO AGUINALDO ABAYA**, hereinafter referred to as **"DOTC-MCIAA"**.

WITNESSETH:

WHEREAS, in the later part of the 1950s the Philippine Government through the Civil Aeronautics Administration acquired numerous parcels of land located in Lapu-lapu City for airport use;

WHEREAS, on July 31, 1990 RA 6958 (MCIAA Charter) was signed into law creating the Mactan-Cebu International Airport Authority (MCIAA) and transferring the airport lands to the administration of MCIAA;

WHEREAS, Presidential Proclamation No. 784 signed on 15 April 1996 reserved for Military Use purposes of the Philippine Air Force, Department of National Defense, a certain parcel of land with an area of about 153.93 hectares from the airport lands;

WHEREAS, MCIAA remains to control and administer the airport lands outside of PP 784 as shown in the herein-attached plan **(ANNEX "A")**;

WHEREAS, part of the airport lands not subject of PP 784 are still occupied by the Mactan Airbase and under its control;

WHEREAS, there are existing structures and facilities used by the DND-PAF in their operations in the airport lands outside of PP 784;

WHEREAS, the said lands outside of PP 784 is necessary to be utilized as MCIAA Expansion project through Public-Private Partnership (PPP);

WHEREAS, in order not to disturb the operations of the DND-PAF there is a need to undertake a Replication Project wherein the DND-PAF structures and facilities located in the airport lands of MCIAA shall be replicated in the area under PP 784 so that DND-PAF may transfer therein to allow MCIAA's use of the existing areas;

NOW, THEREFORE, for and in consideration of the above premises and the terms and conditions hereinafter set forth, the parties hereto hereby agree as follows:

I

DND-PAF STRUCTURES AND FACILITIES

1. The PAF buildings and structures that will be subject of the Replication Project with its corresponding budgetary estimates is as follows:

L/I	NAME OF PROJECT	QTY	UNIT	AMOUNT
1	Construction of Base Operations Building	1,496.00	sqm	56,040,795.00
	Concrete Paved Parking	3,784.00	sqm	8,872,131.31
	Drainage System and Landscaping			3,517,860.73
2	Construction of ACP Hangar	1,859.00	sqm	35,537,661.00
3	Construction of Commel/VSAT Bldg., 5614TH CS	576.00	sqm	17,389,380.00
4	Construction of Communication Tower	1.00	lot	1,343,010.00
5	Construction of Military Parking Ramp	100,374.40	sqm	469,764,436.37
6	Construction of 2-units Non-elevated Guard Post	28.00	sqm	1,000,864.82
7	Construction of 2-units Elevated Guard Post	44.00	sqm	983,508.69
8	Construction of 505th SAR/Fire Crash Station/AGE	500.00	sqm	11,885,586.00
9	Construction of Perimeter Fence (CHB)	763.00	LM	7,711,651.00
10	Construction of Security Fence (Cyclone Wire)	2,384.00	LM	9,361,415.00
11	Construction of 2-Storey Bldg for 221st AS & 222nd AS	775.60	sqm	15,280,643.00
12	Construction of 2-storey 205th THW Barracks	832.50	sqm	13,557,487.93
13	Construction of POL Dump	120.00	sqm	2,467,469.00
14	Construction of Centralized Armory Bldg	360.00	sqm	9,563,988.51
15	Construction of 220th AW Warehouse	300.00	sqm	5,506,477.03
16	Construction of Power House	40.00	sqm	846,363.07
17	Roadnets with pathwalk	15,200.00	sqm	61,803,762.96
18	Drainage System	1,900.00	LM	28,906,304.42
19	Water Distribution System	1,700.00	LM	7,380,579.17
20	Electrical Distribution System	1,800.00	LM	5,743,331.01
21	Communication System	1,800.00	LM	31,478,883.62
22	Centralized Parking Area	5,143.00	sqm	11,584,189.99
23	Drainage System and Landscaping at Centralized Parking Area			3,757,420.05
	TOTAL PROJECT COST			821,285,199.68
	SAY			**821,285,200.00**

II

OBLIGATIONS OF THE PARTIES

A. **The DOTC shall:**

1. Transfer the amount of **EIGHT HUNDRED TWENTY ONE MILLION TWO HUNDRED EIGHTY FIVE THOUSAND AND TWO HUNDRED PESOS (Php821,285,200.000)** in favor of MCIAA to be used exclusively for the implementation of the Replication Project;

2. Transfer additional funds to MCIAA, if necessary, to complete the project and for other costs relating to the project;

3. Provide technical assistance to MCIAA;

4. Provide assistance for the administration requirements of the Technical Working Group (TWG);

5. Provide at least two (2) personnel to compose the Technical Working Group (TWG); and

6. Conduct regular Project inspections to determine full compliance with the terms and conditions of this Agreement.

B. **The MCIAA shall:**

1. Accept the funds transferred by DOTC and use the same exclusively for the Replication Project;

2. Secure the necessary permits and clearances from concerned government regulatory offices prior to the actual implementation of the Project;

3. Implement the Replication Project and create a Special Bids and Awards Committee (SBAC) for the purpose;

4. Submit, at the end of every month, an Accomplishment Report with complete supporting documents to DOTC;

5. Liquidate the transferred funds in accordance with existing government auditing rules and regulations;

6. Coordinate with PAF from the planning stage up to the implementation of the projects;

7. Provide personnel to compose the Technical Working Group (TWG);

8. Provide logistical support to the Technical Working Group; and

9. Upon completion of the Replication Project, and upon prior approval of the DOTC, transfer the completed structures and facilities to DND-PAF;

C. The DND-PAF shall:

1. Assign at least two (2) personnel who shall be MCIAA's resource persons and assist the MCIAA SBAC in the implementation of the Replication Project;

2. Coordinate with the MCIAA SBAC from the planning stage up to the awarding and transfer of the structures and facilities;

3. Conduct inspections and issue certificate of acceptance on the structures and facilities;

4. Provide the necessary assistance and access to the suppliers and/or contractor/s in the implementation of the project;

5. Supervise all the necessary surveys to establish the location of the buildings, facilities or structures to be constructed at the relocation site;

6. Vacate the affected structures and facilities in phases upon completion and acceptance of respective structures and facilities of the Replication Project, based on the design and specifications of the Philippine Air Force; and

7. Assume possession of any ammunition or military facilities to be found underneath the project land.

III

MISCELLANEOUS PROVISIONS

1. Subject to the applicable provisions of this Agreement, a party shall not be liable for a delay in the performance of all or parts of its obligation hereunder, nor be deemed to be in breach of this Agreement, if such failure or delay is due to *force majeure;*

2. Any dispute that may arise regarding the interpretation or performance under this Agreement shall be settled amicably by direct negotiation between the Parties and

3. The Technical Working Group (TWG) will be the one to facilitate the requirements for the whole replication project until completion and acceptance of the projects.

IV

EFFECTIVITY

This Agreement shall come into force and effect on the date of signing by the parties hereof.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed through its duly authorized representatives this 15th day of November 2013 in the City of Mandaue Philippines.

DEPARTMENT OF NATIONAL DEFENSE/PHILIPPINE AIR FORCE

By:

VOLTAIRE T. GAZMIN
Secretary, DND

SECRETARY OF NATIONAL DEFENSE
VTG-135088

DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS/MACTAN-CEBU INTERNATIONAL AIRPORT AUTHORITY

By:

JOSEPH EMILIO AGUINALDO ABAYA
Secretary, DOTC and
Chairman, MCIAA Board

DOTC-OSEC OUTGOING 13-01414

Signed in the presence of:

LTGEN LAURO CATALINO G DELA CRUZ AFP
Commanding General, PAF

NIGEL PAUL C. VILLARETE
MCIAA General Manager/CEO

ACKNOWLEDGMENT

Republic of the Philippines)
City of Mandaue)SS.

BEFORE ME, a Notary Public for and in the City of Mandaue, Philippines, personally appeared **VOLTAIRE T. GAZMIN** and **JOSEPH EMILIO AGUINALDO ABAYA** with Passport Nos. _____ and _____ issued on _____ and _____ at _____ and _____, respectively, all known to me and to me known to be the same persons who executed the foregoing instrument and they acknowledged to me that the same is their free and voluntary act and deed, as well as of the entities they represented.

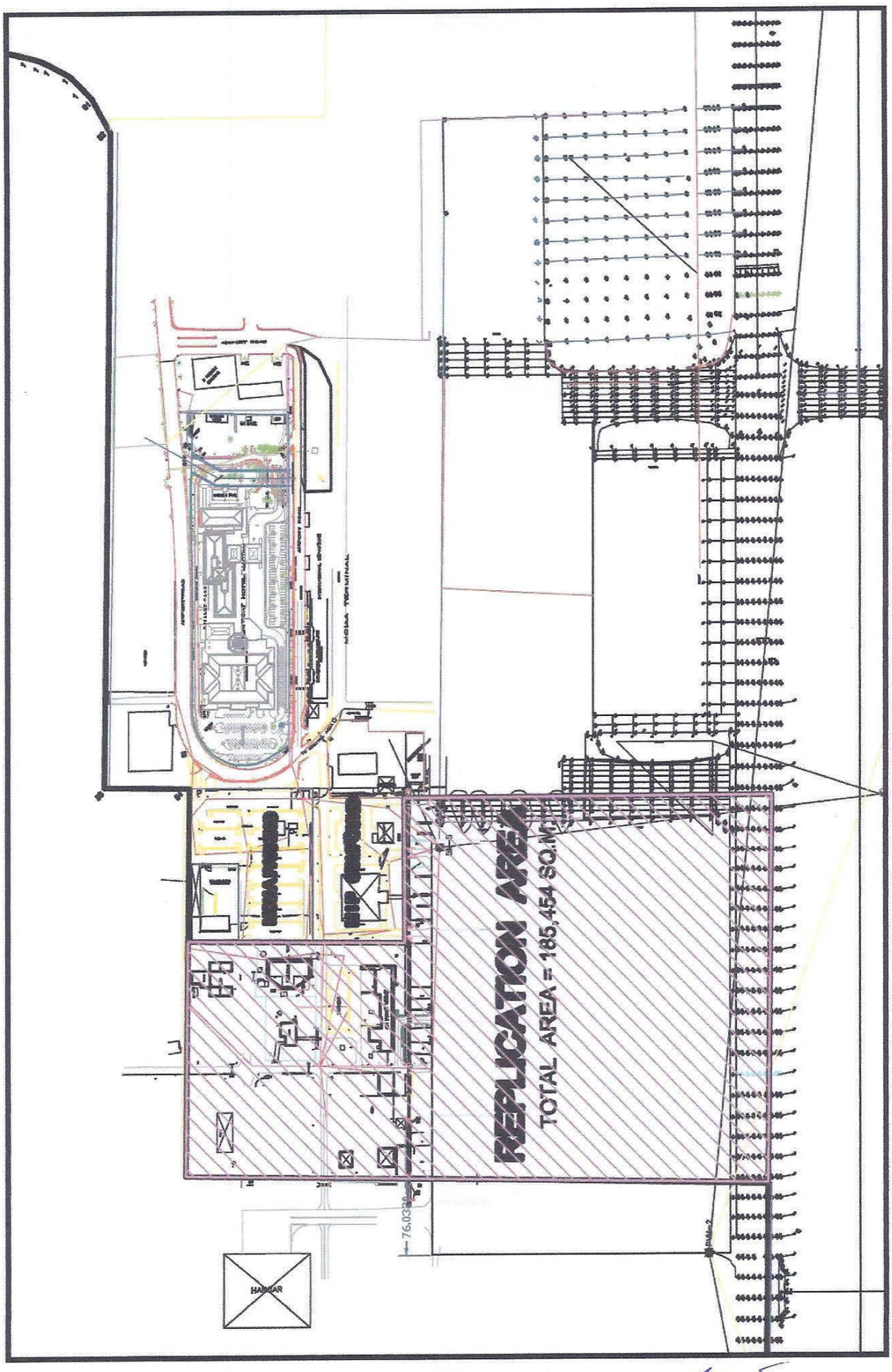
This instrument refers to a Memorandum of Agreement containing five (5) pages including the page on which this acknowledgment is written, signed by the parties and their instrumental witnesses on each and every page thereof and scaled with my notarial seal.

WITNESS MY HAND on this 15th day of November 2013 in the City of Mandaue.

Doc. No. 37;
Page No. 8;
Book No. 2;
Series of 2013

CYRIL B. APAO
NC # 2013-31 for Mandaue City
until December 31, 2014
Roll of Attorney No. 52902
PTR No. 0310040, Mandaue City, 1-09-13
IBP OR No. 900435, Cebu Chapter, 12-11-12
MCLE Compliance No. IV-0011720, 2-15-13
St. Maria Antonia Village, Labogon
6014 Mandaue City, Cebu, Phils.

"ANNEX A"



ANNEX 2:

TREE INVENTORY RESULTS

Mactan-Cebu International Airport Project

TREE INVENTORY SURVEY

Final report

January 2015

TABLE OF CONTENTS

LIST OF TABLES

I. BACKGROUND AND PURPOSE OF THE PROJECT

Background

The expansion plans for the Mactan-Cebu International Airport will require additional space from adjacent lands where proposed structures will be constructed. The expansion will lead to better services for passengers and/ or tourist as well as increase in the Governments' Revenue. As such, the cutting and removal or trees and other crops are necessary and cannot be avoided. However, it is a requirement by the Philippine Government through the Department of Environment and Natural Resources (DENR) to secure needed cutting permit. A Tree inventory survey is necessary to determine accurate information on the kind, number, and volume of timber, non-timber species and other crops that will be affected by the Project.

Under DENR policy specifically DENR Administrative Order No. 2000- 21, dated 28 February 2000, Tree Inventory is required to be conducted for the issuance of necessary Tree Cutting Permits which shall be the basis for the imposition of forest charges on each cubic meter of timber and non-timber to be cut pursuant to Republic Act 7161 and its implementing rules and regulation. It is also a requirement that for every tree cut, there are a corresponding number of seedlings to be given back to the government as replacement. Such tree inventory shall be undertaken by a registered Forester and shall be validated by concerned DENR office for recommendation to issuing authorities.

Purpose

The main objective of tree inventory survey is to gather accurate information on the kind, number, and volume of timber and non-timber species and agricultural crops to be affected by the implementation of the expansion, in order to determine appropriate number of replacement for every tree cut.

Specifically, the objectives of the survey are to:

- Conduct tree inventory survey within the limits of the Project site;
- Determine the number and volume of trees surveyed;
- Determine the number and volume of non-timber species and other crops;
- Prepare a Tree Inventory Report for submission to the Department of Environment and Natural Resources (DENR); and.
- Prepare other necessary requirements needed for the issuance of Tree Cutting Permits.

II. LAWS AND REGULATIONS

1. Background Laws and Regulations (1975 to 2009)

Presidential Decree 705 promulgated on 19 May 1975 provides the basic law governing the conduct of tree inventory and cutting/harvesting of timber and non-timber necessary for the issuance of the permits. Presidential Decree No. 953, dated 06 July 1976, authorizes the Bureau of Forest Development to issue a cutting permit for trees to be removed from public and private areas needed for public works. Pursuant to PD 705, DENR Administrative Order No. 52 series of 2004 specifies the revised guidelines for the issuance of cutting/harvesting permits in privately titled lands.

On 27 November 2009, DENR Secretary Jose L. Atienza, Jr., issued a Memorandum stipulating the "guidelines and procedures on the planting, maintenance and removal of trees and other vegetation in urban areas and in areas affected by government infrastructure projects". The following are the conditions set forth:

a. cutting of trees or other vegetation may be allowed in public and private places that shall be unavoidably affected by infrastructure projects such as construction or widening of roads and bridges, port areas, buildings, etc.

b. when the place or area where trees shall be cut is along the banks or rivers and creeks, the issuing authority for a cutting permit is the concerned DENR Regional Executive Director

c. replacement of every tree cut with seedlings, ranging from 10-50 pieces per tree, will be required, depending upon its diameter

d. all cut trees and/or parts thereof from public places for public works shall be turned over to the nearest DENR Office for disposition. However, trees cut from private lands shall belong to the land owner

2. Executive Order No. 23, Series of 2011

On 01 February 2011, the current President of the Republic of the Philippines, the Hon. Benigno Simeon C. Aquino, III, issued Executive Order No. 23 prohibiting the cutting and harvesting of timber in natural and residual forests and creating an Anti-Illegal Logging Task Force. Section 2, item 2.2 of the Executive Order states that "the DENR is likewise prohibited from issuing/renewing tree cutting permits in all natural and residual forests nationwide, except for clearing of road right of way by the DPWH". It also emphasizes that all logs derived from such cutting permits shall be turned over to the DENR for proper disposal.

3. DENR Memorandum Dated 30 April 2012 and 22 June 2012

On 30 April 2012, the DENR issued Memorandum No. 196 suspending the processing of all requests for cutting permits. On 22 June 2012, the DENR issued another Memorandum describing some exemptions from Memorandum 196 provided the following conditions are satisfied:

a. Naturally growing trees within the privately titled property;

b. Planted trees within public forest/timberland and private lands;

c. Tree cutting activities covered by exemptions provided in the Memorandum from Executive Secretary dated 01 February 2011 regarding "similar activities" of Section No. 2, item 2.2 of EO 23;

d. Submission of appropriate justification that tree cutting can no longer be avoided; and

e. Proposition of possible options to minimize the impact/damage to the environment

The Memorandum also declared that all tree cutting permits shall be processed at the field/regional offices and shall be properly endorsed to the Office of the Secretary through the Forest Management Bureau (FMB).

It is emphasized that trees removed shall be replaced with corresponding number and type of seedlings to be given to the DENR Office based on the ratio shown in **Table ii**.1.

Table ii.1 Ratio of Seedlings for Replacement vs Diameter Class of Trees Subject for Cutting

Diameter Class of Tree/s To Be Removed (cm)	Required Number of Seedlings As Replacement /Tree
less than 3	10
3-9	20
10-19	30
20-29	40
30 and above	50

Source: DENR Memorandum No. 196, series of 2012

4. DENR Memorandum No. 02, Series of 2012

DENR Secretary Ramon J.P. Paje, issued another Memorandum on November 5, 2012 enumerating the guidelines on uniformity of replacement ratios for trees to be cut or relocated. The Memorandum states that:

a. Tree cutting permits covered by exemptions under "similar activities" of Section No. 2, item 2.2 of EO 23 shall be governed by the Memorandum from the Executive Secretary dated 01 February 2011, or a replacement ratio of 1:100;

b. No replacement shall be required to planted trees within private lands and forest lands intended for tree plantations/timber production purposes;

c. For planted trees in private and forest lands not covered under item 2.1, tree replacement shall be in the ratio of 1:50 while naturally grown trees on the same areas, including those affected by development projects, shall have 1:100 ratio in support of the National Greening Program (NGP) and climate change initiatives of the Government; and

d. In order to facilitate the replacement of trees, seedling donation and identification of common planting sites shall be encouraged for more impact, especially in urban areas. Planted trees removed shall be replaced, preferably with indigenous tree species while naturally growing trees shall be strictly replaced with indigenous tree species. All donated seedlings shall be properly recorded and turned-over to the Community Environment and Natural Resources Office (CENRO) concerned who has jurisdiction over the area. Tree planting sites shall be delineated in the ground with the corresponding technical description and GPS map for ease of monitoring and evaluation purposes.

III. SURVEY METHODOLOGY

Coordination Meeting with Concerned LGUs and Other Agencies

Proper coordination with the concerned DENR offices and Local Government Units were conducted to harmonize existing procedures and guidelines to acquire necessary requirements and endorsements. Data collected during the conduct of the tree inventory survey were also discussed during coordination meetings to determine proper procedures on tree inventory.

Procedure in the Conduct of Tree Inventory Survey

Prior to the actual tree inventory, preparatory activities were conducted to make the survey as smooth as possible. An ocular inspection using maps indicating the alignment was also done to determine the boundary of the project area on the ground. Different inventory materials and equipment were secured and used (e.g. meter tape, GPS, camera, tree markers, inventory tally sheets, etc.). A tree inventory team headed by a private Forester was created to carry out the survey.

The Tree Inventory Survey for the Mactan-Cebu International Airport was conducted on October 1-2, 2014, November 20-22, 2014, and January 6-8, 2014. The following discusses the procedures followed during the tree inventory survey, to wit:

a. Identification and plotting of the boundary of the study area to provide clear reference line on whether trees are counted and included.

b. Only trees found growing within the boundary which may be affected by the project shall be counted/marked.

c. Measurement of the diameter of each tree was done using diameter tape or its equivalent. Diameter tapes are calibrated and can be used to take direct measurements. Tree diameter was measured approximately 1.3 meters from the ground. For trees with buttress, diameter was measured 30cm above the enlargement of main width of buttress.

d. Merchantable heights were obtained using the meter tapes or its equivalent. Coordinates for each tree was determined using Global Positioning Systems (GPS).

e. Local name, diameter in cm, height in meters, species number, and coordinates were recorded in the field tally sheets. Tree marking is done using brush and paint;

f. The volume of each tallied trees was computed from the equation of the standing trees applicable for a locality/region pursuant to DENR-FMB Technical Bulletin No. 3 dated 31 October 2012. For the Central Visayas region (Region 7), the applicable volume equation is $V= 0.00004649 \times D2 \times H$

g. The stand and stock tables are prepared by species with corresponding Diameter at Breast Height (DBH) classes.

Procedures in the Acquisition of Tree Cutting Permit

The application for tree cutting permit is filed with and processed initially at the concerned CENRO office. The CENRO Officer shall refer the application to the Chief of the Forest Management Services (FMS) who will assign FMS staff that will conduct site inspection, validation, and assessment and asks for necessary requirements. Inspection report with recommendation is then prepared by the FMS Staff. If all requirements have been submitted, FMS shall Prepare Tree Cutting Permit to be signed by the issuing authority.

The following requirements shall be submitted by the applicant for the issuance of Tree Cutting Permit:

a. Duly accomplished application form
b. Authenticated copy of the land title/CLOA together with sketch/map
c. LGU endorsement (any of the Barangay Chairman. Municipal Mayor or Provincial Governor)
d. Certification from Local DAR officer for CLOA areas
e. Initial Environmental Examination (IEE)
f. Inventory fee based on existing regulations

Table iii.1 shows the DENR issuing authority responsible for the approval of Tree Cutting Permit.

Table iii.1 Approving Authority for the Issuance of Tree Cutting Permit

Volume (cu. cm)	Approving Authority
1-50	CENRO
51-100	PENRO
101-500	RED
501-1000	USEC for Field Operations
Above 1000	Secretary

Source: DENR Administrative Order No. 52, series of 2004
Notes: CENRO – Community Environment and Natural Resources Office
PENRO – Provincial Environment and Natural Resources Office
RED – Regional Executive Director
USEC – Under Secretary

Tree Inventory Survey

The result of the tree inventory survey is shown in **Attachment 1**. The computed total merchantable volume is about 38.47 cubic meters. Following DENR policy, the issuing authority for such volume of merchantable wood will be CENRO Cebu.

Tree inventory survey was conducted in the MCIA area and Philippine Air Force grounds, respectively. The work schedule was prepared as shown in **Table iii**.2 below:

Table iii.2 Work Plan for Tree Inventory Survey

Section	Date
MCIA	October 1-2, 2014, January 6-8, 2015
PAF	November 20-22, 2014

Before the tree inventory survey was conducted, coordination meetings were held to determine the necessary requirements and guidelines in acquiring tree cutting permits. Data collection was also done to supplement the requirement.

Tree Inventory and Tree Tagging

The tree inventory commenced with the presence of representatives from Philippine Air force and GMR Megawide Staffs. All trees/crops found growing within the area, which may be affected by the proposed project, were identified and marked with paints. The locations of each tree/crops were taken using GPS coordinates and indicated in the maps. The marking and numbering of trees is done following the sample format in **Table 3.3.**

Table iii.3 Tree Tag Indicating Data of Each Tree/Crop for Photo Documentation

SPECIES NAME :	
SCIENTIFIC/FAMILY NAME :	
SPECIES NO :	

DIAMETER (cm) :	
HEIGHT (m) :	
LOCATION :	
COORDINATES :	

Factors Affecting the Conduct of Tree Inventory Survey

The following minor delays were experienced in the conduct of the inventory works:

a. Security permits from MCIAA and PAF, and
b. Bad weather.

SUMMARY OF THE TREE INVENTORY SURVEY

Tabulation of Tree Inventory Results

The total number of trees/other crops identified and marked in the Project added up to 529, as shown in **Table 0.1**.

Table 0.1 Summary Table of Trees/Other Crops

Section	Total No. (Trees/ Crops)	Summary	
		Trees (No.)	Other Crops^
MCIA/PAF	529	380	149

Notes: ^including palms

Field data were tabulated into a worksheet showing the computed merchantable volumes (see **Attachment 1**). The photos taken during the inventory survey are shown in **Attachment 2** while location of each tree/crop were also tabulated and shown in a map (see **Attachment 3**). Each tree in the map is posted according to its location and numbered sequentially.

4.2 Required Number of Seedlings for Replacement

Presented in **Table 0.2** is the summary of estimated quantity of seedlings to be replaced as required by the DENR.

Table 0.2 Trees to be Cut vis-à-vis Seedlings to be Planted as Replacement

Section	No. of Trees	No. of Seedlings-Replacement
MCIA/PAF	380	38,000

Source: DENR Memorandum Order No. 02, series of 2012

3. Dominant Tree Species

Table 0.3 is a summary table showing the kinds and types of trees/crops with significant number of population.

Table 0.3 Dominant Species

Species	Number	Percentage
Acacia Auri	9	2.4
Agoho	36	9.5
Alim	2	0.5
Antipolo	7	1.8
Bagalunga	1	0.3
Bitaog	2	0.5
Bo Tree	15	3.9
Chico	1	0.3
Duhat	2	0.5
Firetree	1	0.3
Gmelina	36	9.5
Hamindang	4	1.1
Himbabao	1	0.3
Ipil-ipil	20	5.3
Kaimito	3	0.8
Katuray	2	0.5
Big-Leaf Mahogany	73	19.2
Mango	16	4.2
Nangka	24	6.3
Narra	7	1.8
Neem Tree	85	22.4
Raintree	3	0.8

Species	Number	Percentage
Salisi	3	0.8
Sampaloc	2	0.5
Siniguelas	2	0.5
Talisay	22	5.8
Unknown	1	0.3
Total	**380**	**100.00**

The three (3) most abundant and dominant species of trees for the whole project area are Neem Tree (Azadirachta indica), Big-Leaf Mahogany (*Swietenia macrophylla*), Agoho (*Casuarina equisetifolia*) and Gmelina (*Gmelina arborea*). It is evident that most of the species found along the alignment of the proposed project area were all planted and used for ornamental purposes.

Important Tree Species

There are 2 species listed under DENR DAO 2007-01 or the "National List of Threatened Philippine Plants, and other Categories" pursuant to Republic Act 9147 or "Wildlife Resources Conservation and Protection Act". It is also noteworthy to mention that these 2 species are included in the IUCN or CITES Appendix II. The two species are Smooth Narra (*Pterocarpus indicus spp. Indicus*) and Manila Palm (*Adonidia merrilii*). The Narra tree is considered as Category A species (Critically endangered) while Manila Palm is listed in Category B (Endangered). For IUCN and CITES classifications, Narra and Manila Palm are considered to be Vulnerable and Near Threatened, respectively.

ANNEX 3:

ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE EXISTING TERMINAL OPERATION OF CEBU INTERNATIONAL AIRPORT

(BY SGS PHILIPPINES)

Attachment 3

MACTAN-CEBU INTERNATIONA AIRPORT EXPANSION PROJECT

Photo Documentation
Tree Inventory Survey

Photo 1a. Tagging of Inventoried/Surveyed Tree

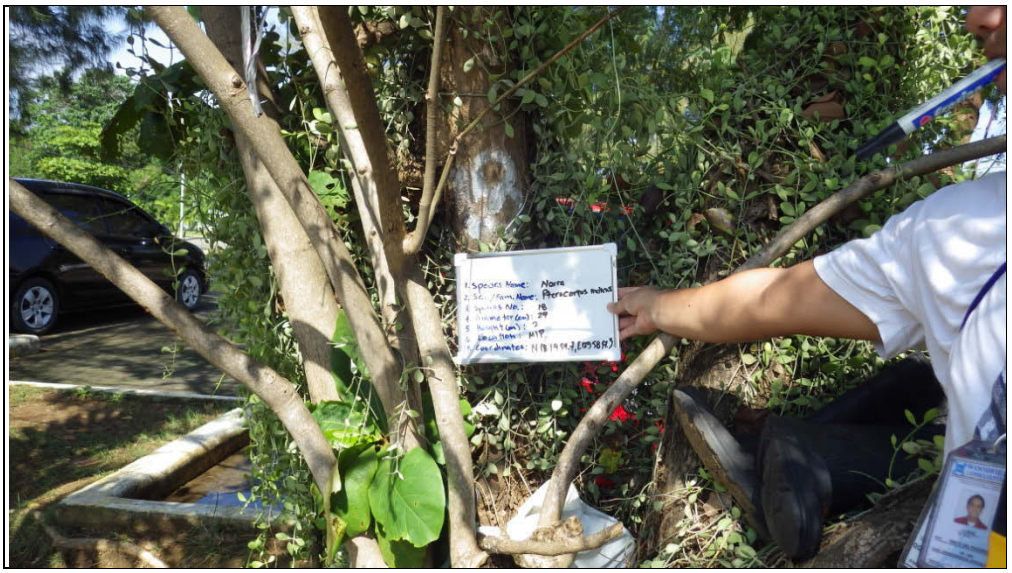


Photo 1b. Tagging of Inventoried/Surveyed Tree

Photo 2. Measuring of diameter breast height

Photo 3. Marking with Paint

Photo 3. Identification of species type

Photo 6a. Panoramic view (section) of Inventoried/ surveyed trees/ crops along the Project site

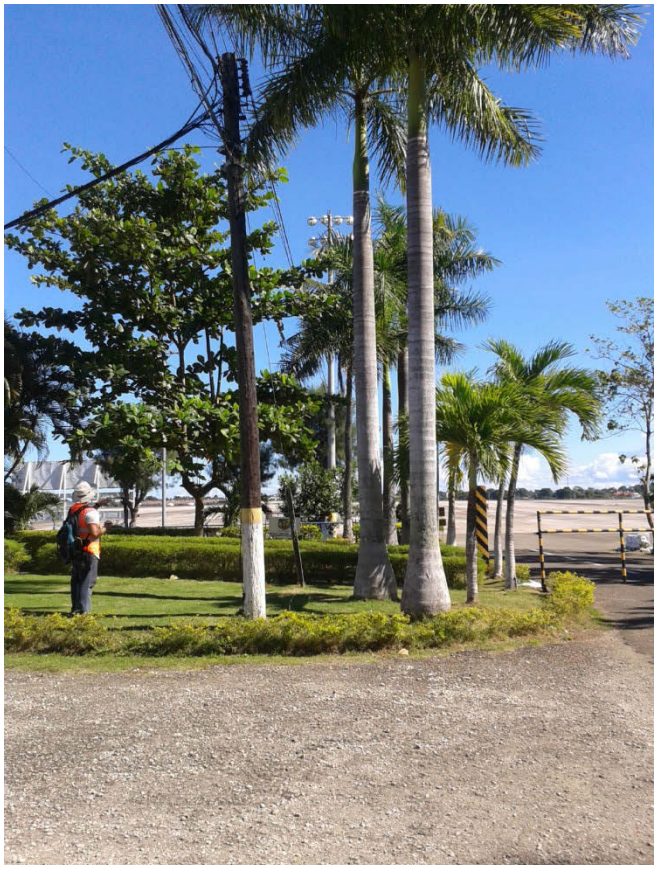


Photo 6b. Panoramic (section)view of Inventoried/ surveyed trees/ crops along the Project site

Photo 6c. Panoramic view of Inventoried/ surveyed trees/ crops along the Project site

ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE EXISTING TERMINAL OPERATION OF CEBU INTERNATIONAL AIRPORT

Prepared for:

GMR MEGAWIDE CEBU AIRPORT CORPORATION (GMCAC)

20N, Domingo Street, Valencia
1112 Quezon City

Prepared by:

SGS Philippines, Inc.
2nd Floor Alegria Building
2229 Chino Roces Avenue, Makati City

WHEN YOU NEED TO BE SURE

CONTENTS

LIST OF TABLES

ENVIRONMENTAL MANAGEMENT PLAN

This Environmental Management Plan (EMP) is being formulated to account for the incremental impacts, cumulative impacts, residual impacts, unavoidable impacts and all other major risk posed by the existing terminal operation of Cebu International Airport located in Lapu-Lapu, Cebu. The EMP contains the various proposed mitigation and enhancement measures, which are converted into programs, identifies responsible entity, and defines the mechanisms for ensuring the implementation of the proposed environmental protection measures.

The Environmental Management Plan (EMP) for the existing terminal operation of Cebu International Airport is comprised of the following:

1) Impacts Management Plan;
2) Environmental Monitoring Plan (EMoP);
3) Information, Education and Communication and Social Development Program;
4) Environmental Risk Management and Emergency Response Program;
5) Abandonment Program; and
6) Institutional Set-up

The preparation of the EMP is based on the guidelines as indicated in Revised Procedural Manual for Department of Environment and Natural Resources Administrative Order No. 30 Series of 2003 (Implementing Rules and Regulations of Presidential Decree No. 1586, Establishing the Philippines Environmental Impact Statement System).

1.0 IMPACT MANAGEMENT PLAN

This section presents the assessment of environmental impacts and its mitigating measures that the management is undertaking to enhance the positive impacts and mitigate the negative impacts. Specifically, the assessment is addressing the most likely changes that may be expected as a result of the operation of terminal operation of Cebu International Airport.

1.1 SOLID WASTE MANAGEMENT (Non-Hazardous Solid Waste)

Airport terminal generates enormous volume of solid wastes from its operation and is evolving a greater challenge from the terminal operator in complying with RA9003 – Ecological Solid Waste Management Act of 2003. The generation of non-hazardous solid wastes is coming from the following: garbage/food wastes from the restaurants and other concessionaires; papers, plastics, cartons from offices and commercial outlets; packaging materials from cargo handlers; yard wastes from the sweeping of roads and parking bays; wastes collected from the comfort rooms; sludge generated from the Sewage Treatment Plant facility; and other solid wastes such as plastic bottles, cans, metal scraps, and old furnitures.

The company will employ the following ecological solid management:

Waste Minimization

As a general policy, waste minimization shall be practiced in all of the terminal operations with much preference to solutions that avoid if not, reduce waste material at source instead of end-of-pipe options, e.g., treatment and disposal. The terminal operation shall strive to employ the most preferable options whenever possible in order to help in the reduction of solid waste generation.

Reusables

Prolonging the life and use of materials shall be promoted to all the employees and concessionaires. The use of reusable containers whenever possible is highly encouraged. Food being taken into the terminal should be placed in reusable containers.

Waste Segregation

In order to properly manage wastes generated by the terminal operation, an ecological waste segregation scheme shall be implemented by the terminal operator. Segregation bins shall be properly labelled in order to help educate and guide the employees, concessionaires, and all the passengers on the system being implemented. Three (3) bins labeled as biodegradable, non-biodegradable and recyclables are placed in different locations of the terminal for the proper segregation of waste.

Waste Storage On-Site and Disposal

All of the solid wastes collected at the waste bins are being collected by the housekeeping personnel and temporarily stored at the Central Storage Station of the terminal. Wastes are stored according to its classification as to biodegradable, non-biodegradable and recyclable waste. Wastes for disposal stored at the Central Storage Station are collected by the hired garbage collector. The segregated recyclable wastes are being separated for re-use. Scrap materials are being turned over to the Property Management for proper documentation and handling. Scrap disposal is being managed by Bid Award Committee for public bidding. Dried sludge generated from the operation of Sewage Treatment Plant is being composted as fertilizer. (Note: Sludge that passes the TCLP standard is being composted as fertilizer otherwise the sludge will be considered as hazardous).

1.2 SOLID WASTE MANAGEMENT

Hazardous waste are classified, handled, stored and disposed off separately from non-hazardous solid waste in accordance with the provision of RA6969 otherwise known as the “Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990. Hazardous wastes generated from the terminal operation are the following: medical waste from clinic; used oil, used filters and contaminated rugs; busted lamps; electronic waste and cartridges of inks and toners; and containers previously containing toxic chemical substances. Sludge generated from the operation of Sewage Treatment Plant facility that exceeded the TCLP limit of DENR shall be treated as hazardous waste. A DENR accredited transporter and treater will be engaged for the proper transport, treatment and disposal of these wastes in compliance with the RA 6969 and DAO 2013-22.

1.3 WATER AND WASTEWATER QUALITY MANAGEMENT

1.3.1 Water Conservation

The water requirement of the existing operation of the terminal is being supplied by Metropolitan Cebu Water District and Mactan Rock Industries. There is no direct extraction from the groundwater to supply the water requirement of the terminal. The company will be implementing the water conservation program to minimize and reduce the water consumption in its operation.

Some of the measures to be undertaken are the following:

- Dry cleaning process such as use of rugs in workshop and maintenance area to clean the oil spillages; and
- Use of low fixtures and appliances to reduce water consumption such as low flush water closets and cisterns;

On the other hand, the following measures shall be considered in the future by the company as it is continuously operating:

- Effluent discharge from the Sewage Treatment Plant will be further treated fit to use for green belt development and floor washing to reduce the fresh water requirement (future plan); and
- Construction of rainwater harvesting pit to collect rain water. The storm water from the pervious area will also be routed to the rainwater harvesting structure. The storm water during the rainy season will be harvested to maximum extent possible

1.3.2 Water Consumption and Wastewater Discharge

Continuous efforts will be made to reduce the water consumption and thereby reducing the volume of wastewater generation. Records will be kept for the delivery of raw water by Metropolitan Cebu Water District and Mactan Rock Industries. Also, automatic flow meter will be installed at the inlet of the Sewage Treatment Plant (STP) as well as the discharge point of the effluent. Flow rates at the treatment facility will be continuously monitored by the STP's operator. Periodic water audits will be conducted to explore the possibilities for minimization of water consumption.

1.3.3 Wastewater Generation and Disposal

The wastewater generation from the terminal operation is coming from the following: domestic activities of all the employees, concessionaires and passengers; discharged from the restaurants; discharged from the cleaning of floors; and make-up water from cooling towers. Wastewaters generated from the domestic activities are being directed to the existing septic tanks of the terminal. Grease traps are installed at the wastewater outlet of the restaurants. Wastewater generated from these sources is being directed to the sump pit of the pumping station located inside the terminal.

Wastewater discharge from the septic tanks, grease traps, floor drains, and cooling tower blow down are being directed to the Sewage Treatment Plant. Then the wastewater is being pumped into the Sewage Treatment Plant, which is approximately 1.5 kilometers away from the terminal. The present capacity of the STP is sufficient enough to treat the volume of the wastewater generated from the existing terminal operation.

Treated wastewater or wastewater effluent is being discharged to an open ditch then flows to Magellan Bay. To support the water conservation program, the treated wastewater will be directed to rainwater harvester pit once this pit has been constructed.

1.4 AIR QUALITY MANAGEMENT

1.4.1 Source Emission

The operation of the electricity generators at the substations, generators inside the terminal and the water/fire pump diesel engines at the pumping station are the sources of air pollutant emissions. Mitigation implemented to reduce the emission of air pollutants are the use of low sulfur fuel and conduct of regular maintenance of the generators and diesel engines. Emission of air pollutant from source can also be reduced by shutting down the combustion engines when not in use.

1.4.2 Vehicular Emission

The movement of vehicles inside the terminal and vehicles going to and from the airport increases the emission of air pollutant such as the particulate matter, oxides of nitrogen and carbon monoxide in the vicinity. The following methods of abatement are being employed to reduce the emission of pollutant to the ambient air:

- Shutting down the combustion engine when not in use;
- Minimizing the vehicular traffic,. Appropriate design of access roads is provided to avoid traffic jams to reduce air pollution;
- Provision of adequate buffer zones where pollution concentrations is highest to reduce the impact of emissions;
- Providing suitable green belt to reduce the impact of air pollution; and
- The vehicles moving within the airport are being maintained and emission checks are carried out on regular interval.

1.5 NOISE LEVEL MANAGEMENT

The operation of compressor, electricity generators, water/fire pump engine, and the take-off and landing of aircrafts are the possible sources that increase the noise level at the terminal area in excess of those typically found in the project environs. Controlling the noise at source is an important option in noise control strategies. Appropriate noise barrier/shields, silencers, etc. are provided wherever possible.

The following measures are being implemented to mitigate the sonic impacts (noise attenuation):

- Switching off the combustion engine when not in use;
- Adequate muffler system was installed to control much of the engine noise;
- Proper maintenance of equipment was implemented to reduce the high noise levels;
- Use of noise absorbing material at the terminal building;
- Electricity generators and water/fire pumps are provided with acoustic enclosure for effective noise reduction. Also, electricity generators are provided with exhaust muffler capable of effective noise reduction; and
- The sources of intermittent noise generating equipment such as compressors are also provided with appropriate acoustic barriers to reduce the noise level generated from the operation of these units.

1.6 PEOPLE COMPONENT

1.6.1 Occupational Safety of the Employees

Personnel exposed to occupational risk are being provided with appropriate Personal Protective Equipment (PPE) and occupational safety is being implemented on site.

1.6.2 Population

There will be no significant impact on the social demography of the area if the employees to be hired would come from the local communities.

1.6.3 *Employment*

The primary positive effect of the terminal operation is the generation of employment. Priority shall be given to the qualified residents of Lapu-Lapu for employment.

There are skills required by the operation, which may not be available locally. Hence, migrants would be needed by the project. However, this should be a last resort, after the company has extensively exhausted all means to locate qualified residents.

1.6.4 Additional Revenues to the Local Government Units

The barangays, municipality, province and region will directly benefit from the terminal operation because percentage of gross income of the company shall be remitted to the government as tax. As an enhancement measure, the company shall pay their percentage of gross income in time.

Presented in ***Table 1*** is the assessment of environmental impacts and its mitigating measures that the management has undertaken to enhance the positive impact and mitigate the negative impact. The recommended format in Annex 2-17 of RPM DAO 2003-30 was used in the preparation of Impact Management Plan.

Table 1. Impact Management Plan

Project Phase/Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Mitigating/Enhancement Measures	Responsible Entity	Cost	Guarantee/Financial Arrangements
I. *OPERATION PHASE*						
The Land						
Solid Waste Generation from the terminal operation.	• Land (Soil) Quality	• Land contamination of non-hazardous solid waste generated identified in Section 1.1 of this EMP.	• Provision of trash bins and implementation of waste segregation, waste minimization, recycling, re-use in accordance to RA 9003. • Regular disposal of solid waste to government approved MRF or landfill facility thru garbage collector	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.

Project Phase/Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Mitigating/Enhancement Measures	Responsible Entity	Cost	Guarantee/Financial Arrangements
		• Land contamination of hazardous waste generated identified in Section 1.2 of this EMP.	• Storage and disposal in accordance with RA6969 and its applicable IRR such as DAO 2013-22, CCO for ODS (if this is used in the terminal operations. Hauling and treatment by DENR accredited transporter and treater.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
Sludge generated from Sewage Treatment Plant.	• Soil Quality	• ENHANCEMENT	• Dried sludge is being composted for use as soil enhancer/fertilizer.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
The Water						
Domestic wastewater generation	• Water Quality	• Pollution of Magellan Bay due to discharge of domestic wastewater.	• Treated at the existing Sewage Treatment Plant (STP).	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
Discharge of make-up water from cooling towers.	• Water Quality	• Pollution of Magellan Bay due to discharge of process wastewater.	• Treated at the existing Sewage Treatment Plant (STP).	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.

Project Phase/Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Mitigating/Enhancement Measures	Responsible Entity	Cost	Guarantee/Financial Arrangements
Wastewater generated from the cleaning of floors.	• Water Quality	• Pollution of Magellan Bay due to discharge of domestic wastewater.	• Treated at the existing Sewage Treatment Plant (STP).	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
Use of water	• Water Resources	• Water Depletion	• Implementation of water conservation program.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
The Air						
Operation of Electricity Generators and water/fire pump diesel engines	• Air Quality	• Ambient air contamination • Increase of noise level in the vicinity	• Regular maintenance • Use of low sulfur fuel, i.e., diesel • Provided with muffler and being operated in an enclosed area • Switching off combustion engine when not in use.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
Operation of Compressor	• Air Quality	• Increase of noise level in the vicinity	• Being operated in an enclosed room with acoustic barrier.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.

Project Phase/Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Mitigating/Enhancement Measures	Responsible Entity	Cost	Guarantee/Financial Arrangements
Vehicular Emission	• Air Quality	• Ambient air contamination	• Shutting down the combustion engine when not in use; • Minimizing the vehicular traffic; • Provision of adequate buffer zones • Appropriate design of access roads • Provision of suitable green belt to reduce the impact of air pollution; and • The vehicles moving within the airport are being maintained and emission checks are carried out on regular interval.	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.

Project Phase/Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Mitigating/Enhancement Measures	Responsible Entity	Cost	Guarantee/Financial Arrangements
The People						
• Employment	• People	ENHANCEMENT: potential employment	• Prioritize hiring the qualified local residents	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
• Land Use	• Local Government Unit	ENHANCEMENT: Increase in local revenues of the LGU	• Prompt payment of taxes and other permits and licenses to the municipality	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
• Occupational safety	• People	• Exposure to Health and safety hazards due to operation of different production machines.	• Provisions of PPEs to workers • Health and safety training for the employees. • Health and Safety operational controls for specific hazards	GMCAC Management	Part of project cost	Included in the operations plan and part of the project cost.
II. *ABANDONMENT PHASE*						
Solid waste generation due to site clearing	• Land contamination	• Solid waste generation that may reduce the aesthetics of the site	• GMCAC to implement the same ecological solid waste management during its operation.	GMCAC Management	Part of project cost	Included in the abandonment plan and part of the project cost.

2.0 ENVIRONMENTAL MONITORING PLAN

The Environmental Monitoring Plan (EMoP) covers the compliance with the prescribed mitigation and enhancement measures provided for the EMP; the regular monitoring of environmental parameters; and the checking of the effectiveness of the EMP and the overall performance of the project from the environmental point of view and the corrective measures.

The EMoP shall have the following objectives:

- Ensure that all emissions and effluents as a result of the terminal operation are all in accordance with DENR Rules and Regulations, which include but not limited to RA8749 (Clean Air Act), RA9275 (Clean Water Act of 2004), etc.;
- Validate the changes in the various environmental media (impact monitoring) as identified in the impact assessment; and
- Provide early warning information of unacceptable environmental conditions;

The Environmental Monitoring Program is presented in Table 2. The environmental attributes will be monitored as given below:

2.1 Non-Hazardous Solid Waste Monitoring

The Pollution Control Officer (PCO) in close coordination with the Housekeeping Department and Property Management shall monitor the operation of the terminal's ecological solid waste management system by conducting regular monitoring. The company to ensure compliance to local and national laws, regulations and ordinances related to the handling, storage, collection, transport and disposal of solid waste generated. Volume of solid wastes generated on site and volume collected for disposal shall be monitored.

2.2 Hazardous Waste Monitoring

The Pollution Control Officer in coordination with Property Management shall monitor the generation, storage and disposal of hazardous wastes to ensure that these are properly managed and do not pose any hazards or risk to the neighboring community. The PCO shall oversee that the necessary documentation as part of the requirements for the monitoring reports of RA6969 is being implemented.

2.3 Water Consumption Monitoring

To support the water conservation program of the company, the volume of raw water consumption on a monthly basis shall be monitored by monitoring the volume delivered by the suppliers.

2.4 Wastewater Monitoring

Flow rates at the entry and discharge point of the STP shall be monitored on a daily basis and shall be recorded on the monitoring log sheet.

Quality of the effluent shall be monitored on a quarterly basis and results shall be compared with the standard set in DENR Administrative Order 35 for Class SC. Parameters to be considered are the following: Color, Temperature, pH, BOD, COD, TSS, Total Coliform, Surfactants, Oil & Grease and Phenolic Substances.

There will be no discharged of the untreated wastewater from the terminal operation as well as treated wastewater that will not comply with the effluent regulation.

2.5 Air Quality Monitoring

Source emission and ambient air quality monitoring shall be conducted within the terminal area and at the substations. Air quality monitoring shall be based on the provision of Implementing Rules and Regulations for RA 8749, otherwise known as the Philippine Clear Air Act of 1999.

The emission from the exhaust stacks attached to the electricity generators and water/fire pump engines shall be monitored for the concentrations of Particulate Matter and gaseous pollutants. Frequency of source emission monitoring shall be based on the conditions stated in DENR Memorandum Circular No. 2007-003.

For the ambient air quality monitoring, the concentration of Total Suspended Particulates and Gaseous Pollutants shall be monitored inside and outside the project boundaries as per direction of the DENR EMB Region 7. About four (4) stations will be selected for monitoring in consultation with regulatory body (DENR EMB Region7) at regular intervals.

2.6 Noise Level Monitoring

The level of noise at the terminal area and at the substations shall be monitored to assess compliance with the following:

- For ambient noise level – DENR standard with reference to 1978 Rules and Regulations of the National Pollution Control Commission on maximum noise levels emanating from the installation, operation, or use of equipment, appliances, and any sound sources at certain hours within residential or industrial area; and
- For workplace noise level- Occupational Safety and Health Standard of Department of Labor and Employment.

2.7 Reporting Requirement

After the issuance of the ECC, the proponent will ensure that all the ECC conditions and commitment in the EMP and EMoP for the operation stage are being implemented and complied. Self-Monitoring Reports (SMR) and Compliance Monitoring Report (CMR) detailing status of compliance with ECC and other environmental rules and regulations will be submitted regularly as required by the regulatory body.

Table 2. Environmental Monitoring Plan Matrix

Key Environmental Aspects per Project Phase	Potential Impacts Per Envt'l Sector	Parameters to be Monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost
			Method	Frequency	Location		
OPERATION PHASE							
Non-hazardous solid waste generation	Land Contamination	Volume of solid waste	In-house monitoring	Daily	Central Storage area	PCO	Part of the project cost
Hazardous waste generation	Land contamination	Volume of waste generated, transported and treated.	In-house monitoring	As generated and transferred to the storage area.	Property Management Area	PCO	Part of the project cost
Operation of Standby Electricity Generator and fire/water engine pumps	Air Quality	PM, Nox and CO or as recomended by the regulatory body.	As described in Clear Air Act	As described in DENR MC 2007-003	Substation and genset storage area at the terminal.	PCO	Part of the project cost
	Ambient Air	TSP, SO_2, NO_2 and CO	As described in Clear Air Act	Semi-annual or as recommended by regulatory body.	Within the terminal premises and substation	PCO	Part of the project cost

7.0 INSTITUTIONAL PLAN

The main thrust of the Institutional Plan is to establish essential organizational components that will implement the proposed EMP as well as provide the necessary mechanism that will strengthen organizational relationship of the proponent with stakeholders and government agencies. The table below presents the institutional plan for the current EMPs that are in place for the existing terminal operation.

TABLE 3. INSTITUTIONAL PLAN FOR EMP IMPLEMENTATION

Item	Reporting Scheme		
	Reporter	Recipient	Frequency
Operational Phase			
Incident Report	Safety Officer	DOLE	Monthly
Self Monitoring Report	PCO	DENR	Quarterly
Compliance Monitoring Report	PCO	DENR	Semi-annual
Abandonment Phase			
Progress Report	Contractor	GMCAC	Daily
Incident Report	Contractor	GMCAC/DOLE	Once an incident occurs
Abandonment Report	PCO	DENR	Upon completion of project abandonment

Key Environmental Aspects per Project Phase	Potential Impacts Per Envt'l Sector	Parameters to be Monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost
			Method	Frequency	Location		
	Ambient Noise	Noise Level	Direct measurement	Semi-annual or as recommended by regulatory body.	Within the terminal premises and substation	PCO	Part of the project cost
Operation of compressor	Ambient Noise	Noise Level	Direct measurement	Semi-annual or as recommended by regulatory body.	Compressor area	PCO	Part of the project cost
Generation of wastewater	Water Quality	Color, Temperature, pH, BOD, COD, TSS, Surfactants, Oil & Grease and Phenolic Substances	As described in DAO 35	Quarterly	At the discharge point going to the public sewer.	PCO	Part of the project cost
ABANDONMENT PHASE							
Solid waste generation	Land Contamination	Volume of solid waste	In-house monitoring	Weekly	At the site	PCO	Part of the abandonment cost

3.0 INFORMATION, EDUCATION AND COMMUNICATION (IEC)

IEC is the component to establish support, linkages and participation of a broader sector of stakeholders. It provides for the continuing information drive, community relations and community mobilization during the project implementation. It is also critical for bringing the transparency in implementation of Environmental Programs at the field level and for promoting the concept of accountability and social audit. And since the project is already at its operational phase, IEC should be undertaken to generate participation and support from communities in the following areas:

- participation in the project monitoring; and
- participation in the employment opportunities

IEC at this stage will be closely linked to the Social Development Program of this EMP. Other critical information that should be disseminated includes the following:

- list of potential employment opportunities for the local populace;
- the components of the EMP, particularly the Social Development Program; and
- other projects to be undertaken by the proponent, e.g. expansion or improvement of existing public utilities.

GMCAC to continue the IEC activities to keep in constant contact with the community in the project's environment.

4.0 SOCIAL DEVELOPMENT PROGRAM

The Social Development Program expresses the social responsibility of the proponent to address valid issues/concerns, which have bearing on social acceptability as well as commitment to achieving sustainable development. Mitigating and enhancement measures are included to address social issues and concerns of the community particularly on the employment program.

5.0 ENVIRONMENTAL RISK MANAGEMENT AND EMERGENCY RESPONSE PROGRAM

This section describes performance against any risk-related event or accident and how such will be managed to minimize environmental impacts/damages.

5.1 Environmental Risk Management

Environmental assessment and management will be implemented to help minimize the environmental impacts of its operations and enhance its business reputation and operational efficiency.

An environmental assessment identifies potential future hazards and challenges to decrease adverse impacts on the environment. By examining scenarios and anticipating future challenges, an environmental risk assessment will ensure that the project has been integrated and budgeted for all possibilities for the future of its site. It will also help operations to deal immediately with existing problems such as sources of pollution, thereby avoiding expensive remediation at a later stage.

5.2 Emergency Response Programs

An **Emergency Action Plan** will be formulated to provide for the necessary information and training which in turn will reduce reaction time in the event of an accident, thereby increasing the effectiveness of the preventative actions.

The **Emergency Action Plan** must address the necessary responses to the following:

- Accidents and injuries
- Building evacuation; including evacuation plans and personnel accounting
- Emergency communications
- Emergency response teams
- Emergency shutdown procedures
- Fire
- Natural Disasters
- Spills and other Releases

5.3 Company Safety and Health Policy

To address the safety, and health concerns of the project, GMCAC to formulate a Company Safety Policy to serve as a guiding principle in the implementation of safety and health programs on site. The safety policy shall include the reporting requirements of the Occupational Health and Safety Standards (OSHS), and other relevant DOLE issuances. This policy should conform to the rules of the OSHS, and example of which are listed below:

- RULE 1030 – Training of Personnel in Occupational Safety and Health.
- RULE 1040 – Health and Safety Committee
- RULE 1050 – Notification and Keeping of Records of Accidents and/or Occupational Illnesses
- RULE 1060 – Premises of Establishments. Provides rules on safety requirements for:
    - 1062 – Space Requirement
    - 1063 - Walkway Surface
    - 1064 - Floor and Wall Opening
    - 1065 - Stairs

  - 1066 - Windows Openings
  - 1067 - Fixed Ladders
  - 1068 – Overhead walks, Runways and Platforms
  - 1069 - Yards
- RULE 1070 – Occupational Health and Environmental Control
  - 1974.01 - Threshold Limit Values for Noise
  - 1074.02 - Permissible Noise Exposure
  - 1075 - Illumination
  - 1975.02 - Natural Lighting
  - 1075.03 - Artificial Lighting
  - 1075.04 - Intensity
  - 1075.06 – Emergency Lighting
  - 1076 – General Ventilation
  - 1076.01 – Atmospheric Conditions
  - 1976.02 – Air Supply
  - 1076.03 – Cleanliness
  - 1076.04 – Air Movement
  - 1076- 05 – Temperature and Humidity
  - 1077 – Working Environment Measurement
- RULE 1080 – Personal Protective Equipment and Devices
- RULE 1210 – Electrical Safety
- RULE 1960 – Occupational Health Services

5.4 Health and Safety

The designated Pollution Control Officer (PCO) may concurrently act as the Health and Safety Officer and will undergo necessary training on health and safety. Regulations. Health r and safety audits shall be conducted in parallel with the environmental audits with the aim of continuously improving health and safety practices at the airport terminal. Likewise, an annual health examination for employees shall also be conducted.

6.0 ABANDONMENT PROGRAMS

In the event that the concession agreement between Department of Transportation and Communication (DOTC) and GMR Megawide Consortium has ended, all of the assets will be turned over to DOTC. Materials or waste with potential hazards to the vicinity shall be removed by GMCAC prior to the end of its concession period. The same waste management measures as in the operational phase will be observed. Also, the site will be rehabilitated should it be contaminated by its operation. The rehabilitation efforts will be commensurate to the degree of the site contamination or damage. On the other hand, workers will be notified or informed of the of concession end period ahead of time.

ANNEX 4:

SAFETY MANAGEMENT SYSMTEM MANUAL OF MACTAN CEBU INTERNATIONAL AIRPORT AUTHORITY

Mactan-Cebu International Airport

SAFETY MANAGEMENT SYSTEM MANUAL

Issue 1
January 2011

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Amendments

The amendments listed below have been incorporated in this copy of the Safety Management System Manual.

Amendment Number	Affected Parts	Affected Pages	Signature	Date

Revision History

The Safety Management System Manual has been revised as indicated by the changes listed in the following table.

Version	Date	Part / Section	Details

Introduction

This is the Safety Management System (SMS) Manual required by Civil Aviation Act of 2007 (RA 9497) for Mactan-Cebu International Airport operated by Mactan-Cebu International Airport Authority (MCIAA). This manual applies to all personnel employed by, or contracted to by MCIAA in any capacity (full time, part time or casual). All personnel shall abide by the procedures contained in this manual.

A functioning Safety Management System became a mandatory requirement for certified Aerodromes on 24 November 2005.

The heart of the SMS in this document is a hazard reporting process and a process for the risk assessment and treatment of the hazards identified by staff, or through investigation and analysis of incidents or accidents. The process is shown diagrammatically in a flowchart and table attached to this section. Other sections of the manual provide the context within which the SMS can function. This context is composed of elements like management commitment, definition of roles and responsibilities, safety training for staff and the regular evaluation of the effectiveness of the SMS.

Management commitment, effective two-way communication and a positive safety culture are the foundations for success.

The Mactan –Cebu International Airport safety management system is an integrated set of work practices, beliefs and procedures for monitoring and improving the safety and well being of all aspects of the organization. It recognizes the potential for errors and establishes robust defenses to ensure that errors do not result in incidents or accidents. It will incorporate the underlying principles of Quality Management and Risk Management with Safety Management principles and practices. These concepts build on and reinforce each other.

As with all management systems, Mactan-Cebu International Airport SMS involves goal setting, planning, documentation, and the measuring of performance against goals. This safety management system is a comprehensive integrated tool for managing safety in airside/landside operations. It sets out:

- The safety objectives;
- The systems and procedures by which these are to be achieved;
- The performance standards which are to be met; and
- The means by which adherence to these standards is to be maintained.

Written directions and instructions must be clear and concise, and readily available to everyone who may need them.

Document Amendment Procedures

CAAP regulation applies to procedures for amending an SMS Manual. The philosophy and process applicable to SMS Manuals, including amendment requirements, are applied equally to this manual unless or until specific instructions are provided for SMS Manuals.

Amendment Awareness Records

All personnel associated with any aspect of the aerodrome safety management system must sign the Amendment Awareness Record as evidence of having read, understood and agreed to apply the procedures and data contained in the SMS Manual.

All personnel who are required to sign must do so on initial issue of the manual, and additionally whenever an amendment has been made. It is the Aerodrome Manual Controller's responsibility to ensure that each amendment is brought to the attention of all relevant persons.

References

a) ICAO Document 9859 Safety Management Manual

b) ICAO Document 9774 Manual on Certification of Aerodromes

c) Annex 14 Aerodromes Volume 1 Fourth Edition, amendment 7

d) AO 139

e) Manual of Standards for Aerodromes

Definitions and Abbreviations

Definitions

All definitions contained *in the Civil Aviation Act, Regulations, Orders*, and the Aeronautical Information Publications are applicable whenever appearing in this Manual. The following definitions are provided for user's convenience or because they are additional:

Agent - means the name, address and contact details of the person who is authorized to act on behalf of the applicant and where all correspondence should be sent if this person and address is different from the entity. CAA will need written evidence that an agent is authorized to act on your behalf.

Aerodrome - means a defined area of land or water including any buildings installations and equipment intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Authority - *The Civil Aviation Authority*.

Chief Executive Officer (CEO) - means a person with overall operational responsibility for a particular aerodrome. Other titles such as Airport Director, General Manager and Managing Director may be used in place of CEO where the role is essentially the same.

Company - The term "company" is used generically, and may include a council, an individual or a corporate body.

Change Management - The capabilities and support required by an organization constantly evolving in response to the changing requirements of interested parties, a dynamic business environment and the process of continual improvement. Change may also require that there be associated cultural and behavioral adjustments within an organization. Where these are necessary they will take time and resources and must be led by management.

Consigned freight - means cargo that is unaccompanied, therefore requiring it to be associated with appropriate documentation. Consigned freight is required to be formally accepted by an operator.

Critical safety information - Is the type of information that staff and management need to be aware of, in order to do their job. Typically, this would include information like a change to a company procedure required as part of a safety risk treatment option

Defences - Are actions or elements of a design put in place to reduce the likelihood or consequence of an event. Risk treatment will normally involve the introduction or enhancement of defenses against a specific negative outcome.

Deficiency -The result of lacking something essential; imperfect; defective. Such as hazards allowed to exist within a system result in a System Deficiency.

Employers/Employees - shall mean any person, corporation, partnership, joint venture, sole proprietorship, association or other entities conducting commercial activity at the airport and their subcontractors, ground transportation providers, construction contractors, Civil Aviation Authority of the Philippines (CAAP), or any local or national government agency operating in the airport. This includes all personnel involved in performing services which may directly impact safety, security and customer service.

Event - An incident or situation which occurs in a particular place during a particular interval of time. For the purpose of this manual, an incident or accident occurring at an aerodrome is regarded as an event.

Facility - means premises being used, or to be used, for the operation of an aircraft on the aerodrome. These premises may be fixed or portable, and may include communication facilities.

Hazard - A source of potential harm or a situation with a potential to cause loss.

Hazard Assessment - An activity to determine whether or not a reported hazard is in fact a risk to aerodrome safety in any way. The outcome of an assessment is to classify all reported hazards, incidents and accidents as a risk of a certain magnitude. Assessment involves transitioning reported hazards and events into risks so that they can be dealt with in a meaningful way.

Human Factors - Human Factors involves the study of the human's capabilities, limitations, and behaviors and the integration of that knowledge into the design of systems to enhance the safety, performance and the general well being of the operators of the systems.

Investigation - An activity to determine and assess any risks associated with an event using the hazard assessment process.

Legal Entity - means a person having legal personality (capable of enjoying and being subject to legal rights and duties). A legal entity may be a natural person or a group of natural persons, an incorporated company or association, a group of such companies or associations or a body corporate or politic created by statute.

Likelihood - Used as a qualitative description of probability or frequency.

Mitigation - The actions taken to control, reduce or remove a hazard or to reduce the probability or the severity of a risk. The result of an action to make milder or less severe.

Monitor - To check, supervise, observe critically, or record the progress of an activity or system on a regular basis in order to identify change.

Non-critical safety information - Is the sort of safety information that staff and management only need a general awareness of as part of their job

Owner - means the legal entity holding the Aerodrome Certificate.

Operator - has the same meaning as "company"

Probability - The likelihood of a specific outcome.

Risk - The chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood.

Risk analysis: - A systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.

Risk assessment - The overall process of risk analysis and risk evaluation.

Risk evaluation - The process used to determine risk management priorities by comparing the level of risk against predetermined standards, target risk levels or other criteria.

Risk identification - The process of determining what can happen, why and how.

Risk level - The level of risk calculated as a function of likelihood and consequence.

Risk management - The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.

Safety - A state in which the risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management.

Safety culture - points out that all employees are responsible for safety

Safety Management System - A Safety Management System is an integrated set of management practices, beliefs and procedures for monitoring and improving the safety and health aspects of your organization.

Safety Officer - means a person with specific responsibilities under this manual.

Short Term Corrective Actions - Short term Corrective Actions are those which the Safety Officer considers can be completed within 2 months of the receipt of report.

Works Safety Officer - means a person responsible for the safety of works undertaken on an aerodrome

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Section 1

SAFETY POLICY AND OBJECTIVES

1.1 SAFETY POLICY STATEMENT

Safety is one of our core business functions. We are committed to developing, implementing, maintaining and constantly improving strategies and processes to ensure that all our aviation activities take place under a balanced allocation of organizational resources, aimed at achieving the highest level of safety performance and meeting national and international standards, while delivering our services.

All levels of management and all employees are accountable for the delivery of this highest level of safety performance, starting with the [chief executive officer (CEO)/managing director/or as appropriate to the organization].

Our commitment is to:

- **Support** the management of safety through the provision of all appropriate resources, that will result in and organizational culture that fosters safe practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as the attention to the results of the other management systems of the organization;

- **Enforce** the management of safety as a primary responsibility of all managers and employees;

- **Clearly** define for all staff, managers and employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance and the performance of our safety management system;

- **Establish and operate** hazard identification and risk management processes, including a hazard reporting system, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is as low as reasonably practicable (ALARP);

- **Ensure** that no action will be taken against any employee who discloses a safety concern through the hazard reporting system, unless such disclosure indicates, beyond any reasonable doubt, an illegal act,gross negligence, or a deliberate or wilful disregard of regulations or procedures;

- **Comply** with and, wherever possible, exceed, legislative and regulatory requirements and standards;

- **Ensure** that sufficient skilled and trained human resources are available to implement safety strategies and processes;

- **Ensure** that all staff are provided with adequate and appropriate aviation safety information and training, are competent in safety matters, and are allocated only tasks commensurate with their skills;

- **Establish and measure** our safety performance against realistic safety performance indicators and safety performance targets;

- **Continually improve** our safety performance through management processes that ensure that relevant safety action is taken and is effective; and

- **Ensure** externally supplied systems and services to support our operations are delivered meeting our safety performance standards.

(Signed) **ENGR. NIGEL PAUL C. VILLARETE**
Airport General Manager/CEO

1.1.1 Safety Objectives

The objective of Safety Management System is:

a. To provide a structured management system to eliminate or control risk in operations into an acceptable level.
b. To set up Safety Management System Unit to oversee the development and implementation of the Aerodrome Safety Management Unit and to ensure that the application of effective Safety Management System is integral to all our activities.
c. Develop and embed a safety culture in all our activities that recognize the importance and value of effective Safety Management and acknowledge at all times that safety is paramount.
d. Clearly define for all staff their accountabilities and responsibilities for the development and delivery of safety strategy and performance. Ensure that all staff is provided with adequate and appropriate safety information and training, are competent in safety matters and are only allocated tasks commensurate with their skills;
e. To ensure that all staff is provided with adequate and appropriate safety information
f. To provide the necessary training to build and maintain a meaningful aerodrome operational safety leadership skills.
g. To ensure that the measurement of the organizational safety performance and safety targets are in place.

1.2 MANAGEMENT SAFETY ACCOUNTABILITY

1.2.1 Accountability General

Responsibility and accountability are interlinked. While individual staff member is responsible for their actions, they are also accountable to their supervisor or manager for the safe performance of their functions and may be called on to justify their actions. Although individuals must be accountable for their own actions, managers and supervisors are accountable for the overall performance of the group that reports to them.. Accountability is a two-way street. Managers are also accountable for ensuring that their subordinates have the resources, training, experience, etc. needed for the safe completion of their assigned duties.

1.2.2 The senior management team members are committed to the following:

a. Demonstrating commitment to safety and the Safety Management System;
b. Setting the safety standards and policies for the operation;
c. Encouraging participation in safety management by as many staff as possible;
d. Allocating sufficient resources to the Safety Management System; and
e. Facilitating the flow of safety information.

1.2.2.1 **Within MCIAA, a visible commitment by senior management is demonstrated by the following:**

a. The appointment of a safety officer/manager;
b. Open communication about safety issues; and
c. Provision of adequate resources to address safety concerns.

1.2.3 **The company provides the following:**

a. Managers getting personally involved in safety activities;
b. Safety induction for all employees; and,
c. A commitment to safety that is evident in terms of finance, time, formal documentation and adequate qualified and experienced personnel.

1.2.4 The CEO/GM is accountable for performance relating to:

a. Development of the strategic business planning process, i.e. mission, strategies, goals, and initiatives;
b. Planning of the annual business and operating process;
c. Safety Policy is defined and/or clarified;
d. Establishment/approval of specific safety performance measurements by each operating division (part of the Risk Assessment);
e. Inclusion of safety responsibilities in each managers job description and performance review;
f. Appointment of specific individuals responsible to achieve divisional/departmental safety initiatives (the Safety Officer/ Safety Manager);
g. Providing an environment in which the Safety Manager is able to report safety concerns without fear or favor;
h. Sufficient resource reallocation or requirements for safety management;
i. Ensuring that each location within an operational division develops, maintains and implements a written Safety Plan including the emergency procedures;
j. Ensuring procedures that address the contractor risk exposures as part of the risk assessment are established;
k. Signing the safety policy for the organization;
l. Settlement of disagreements which create an impasse among the department heads; and
m. Reviewing and Evaluating the Safety Management System at regular intervals

1.2.5 Safety Manager Accountability

1.2.5.1 The CEO/GM may appoint a permanent safety manager or designate for a maximum period of one(1) year until a permanent safety officer is hired.

1.2.5.2 The Safety Manager has the authority to make decisions and recommends budget cost to the CEO/GM for approval of resources on safety matters as:

a. budget cost for each safety investigation/treatment
b. budget per annum
c. appointment of members or staff involved in investigation/treatment of hazards at any one time
d. other limits as stated by CEO

1.2.5.3 The Safety Manager reports directly to directly to the GM/CEO.

1.2.5.4 The Safety Manager is responsible for:

a. The review and revision of the safety management program
b. Providing timely advice and assistance on safety matters to managers and staff at all levels
c. Maintaining an appropriate reporting system to identify hazards
d. Monitoring the progress of safety reports and ensuring that hazards are addressed in a timely manner
e. Maintaining a list of personnel who are qualified to participate in a safety investigation
f. Providing feedback about ongoing safety issues
g. Reporting incidents and accidents as required by legislation
h. Distributing relevant and up-to-date safety information to staff and management and
i. Identifying safety training requirements

1.2.5.5 The Safety Manager is also required to:

a. Comply with all procedures and practices relating to the prevention and control of hazards;
b. Comply with all emergency procedures as defined in the Aerodrome Manual
c. Report any matters of which he is aware to the GM/CEO that may affect the company's compliance with the provisions of current legislation
d. Take corrective action and, if necessary, interrupt operations if they believe that there is an imminent danger of a major accident
e. Notify the GM/CEO or raise the alarm, as appropriate, before or as soon as possible after, taking such action
f. Discuss with senior management any potential hazards that they consider are capable of generating a major accident

1.2.6 Manager, Airport Operations Department

The Manager, Airport Operations Department is accountable for the safe implementation of the reporting procedures of the aerodrome operations and for advising AIS of permanent changes to airport information. He is also accountable for advising CAAP of any significant changes to aerodrome information that may occur and endangers aircraft operations.

1.2.7 Manager, International Terminal Operations Division

The Manager, International Terminal Operations Division is accountable for the safe coordination of all activities and safe use of equipments, facilities necessary to ensure the smooth flow of arriving, departing passengers and cargoes in the International Passenger Terminal building.

1.2.8 Manager, Domestic Terminal Operations Division

The Manager, Domestic Terminal Operations Division is accountable for the safe coordination of all activities and the safe use of equipments, facilities necessary to ensure the smooth flow of arriving, departing passengers and cargoes in the Domestic Passenger Terminal building.

1.2.9 Manager, General Aviation and Industrial Division

The Manager, GAID is accountable for the safe administration to the needs of the private and corporation aviation sector and the aviation industrial sector.

1.2.10 Manager, Engineering Department

The Manager, Engineering Department is accountable for the safe operations, management ,maintenance and repair of all MCIAA facilities and equipments , installations and buildings.

1.2.11 Manager, Electrical Division

The Manager, Electrical Division is accountable for the safe implementation, plans, policies and procedures for the installation, operation, repair and maintenance of all electrical equipments and installations of MCIAA. Accountable also for the safe conduct and inspection of all electrical installation, facilities to ensure their continuous service and or uninterrupted use and undertake all other activities relevant to the operation, maintenance and upgrading of said installation facilities.

1.2.12 Manager, Mechanical Division

The Manager, Mechanical Division is accountable for the safe development and implementation of plans, policies and procedures for the installation, operation, repair and maintenance, upgrading of all MCIAA's mechanical equipment and installation facilities. Accountable also for the safe conduct of periodic preventive maintenance and inspection of said equipment, facilities installation.

1.2.13 Manager, Civil Works Division

The Manager, Civil Works Division is accountable for the safe provision of all the services necessary for the proper management, improvement, maintenance and repair of the airports vertical and horizontal facilities.

1.2.14 Manager, Electronics and Communications Division

The Manager, Electronics and Communications Division is accountable for the safe, efficient and effective provision of all communications services as well as undertake the development and implementation of plans, policies and procedures for the installation, operation, repair, maintenance and upgrading of all the complex communication and electronic equipment installation facilities.

1.2.15 Manager, Emergency and Security Services Department

The Manager, Emergency and Security Services Department is accountable for the safety and security to passengers, cargoes, aircrafts, airport equipment, structures, facilities, personnel funds and documents and other emergencies within the airport in accordance with existing international requirements, standards and convention.

1.2.16 Manager, ID and Pass Control Division

The Manager, ID and Pass Control Division is accountable for the safety requirements before the issuance of the access pass to all airport personnel in accordance to the MCIAA rules, regulations and standards.

1.2.17 Manager, Police Force Division

The Manager, Police Force Division is accountable for the safe implementation and management of security and the maintenance of peace and order within the premises of the MCIAA in coordination with local police authorities and other authorized peace keeping entities within the airport.

1.2.18 Manager, Finance Department

The Manager, Finance Department is accountable for the release of all necessary resources for the implementation of all safety related activities and programs.

1.2.19 Manager, Administrative Department

The Manager, Administrative Department is accountable for the management and administration of personnel policies and procedures responsive to the Authority's operational needs, requirements. Formulate and implements comprehensive human resource staff development programs and schemes.

1.2.20 Manager, Human Resource and Management Division

The Manager, Human Resource Management Division is accountable for the approval of all the necessary human resource requirements for the Creation of the Safety Management System Unit.

SMS FUNCTIONAL CHART

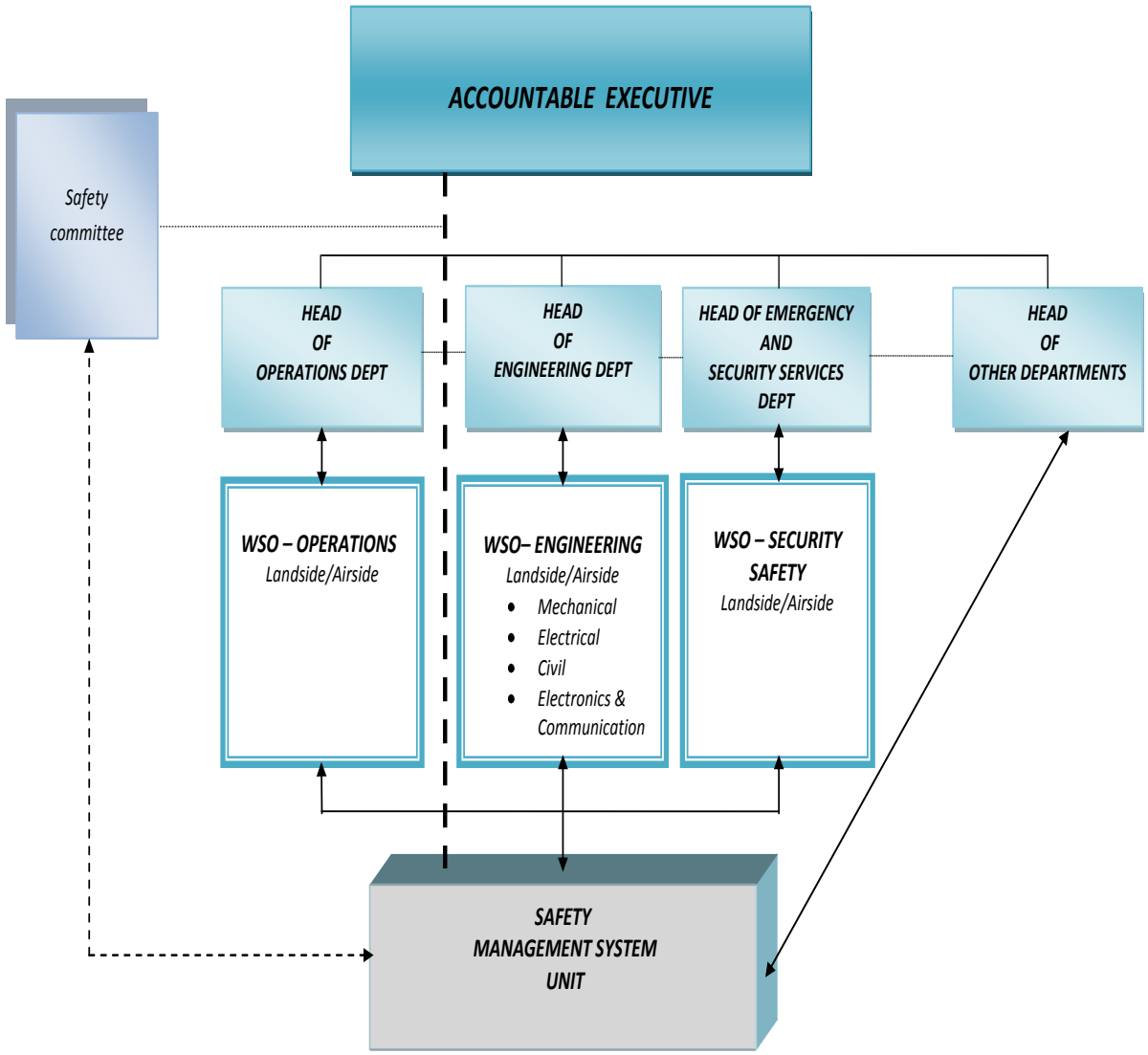


Fig. 1 SMS Functional Chart

1.3 APPOINMENT OF KEY PERSONNEL

Key to the effective implementation and functioning of a Safety Management Office/Unit is the appointment of the person in charge of its daily operations. The person will be identified by the different names in different organizations. In Mactan - Cebu International Airport Authority, an Aerodrome Safety Manager was appointed.

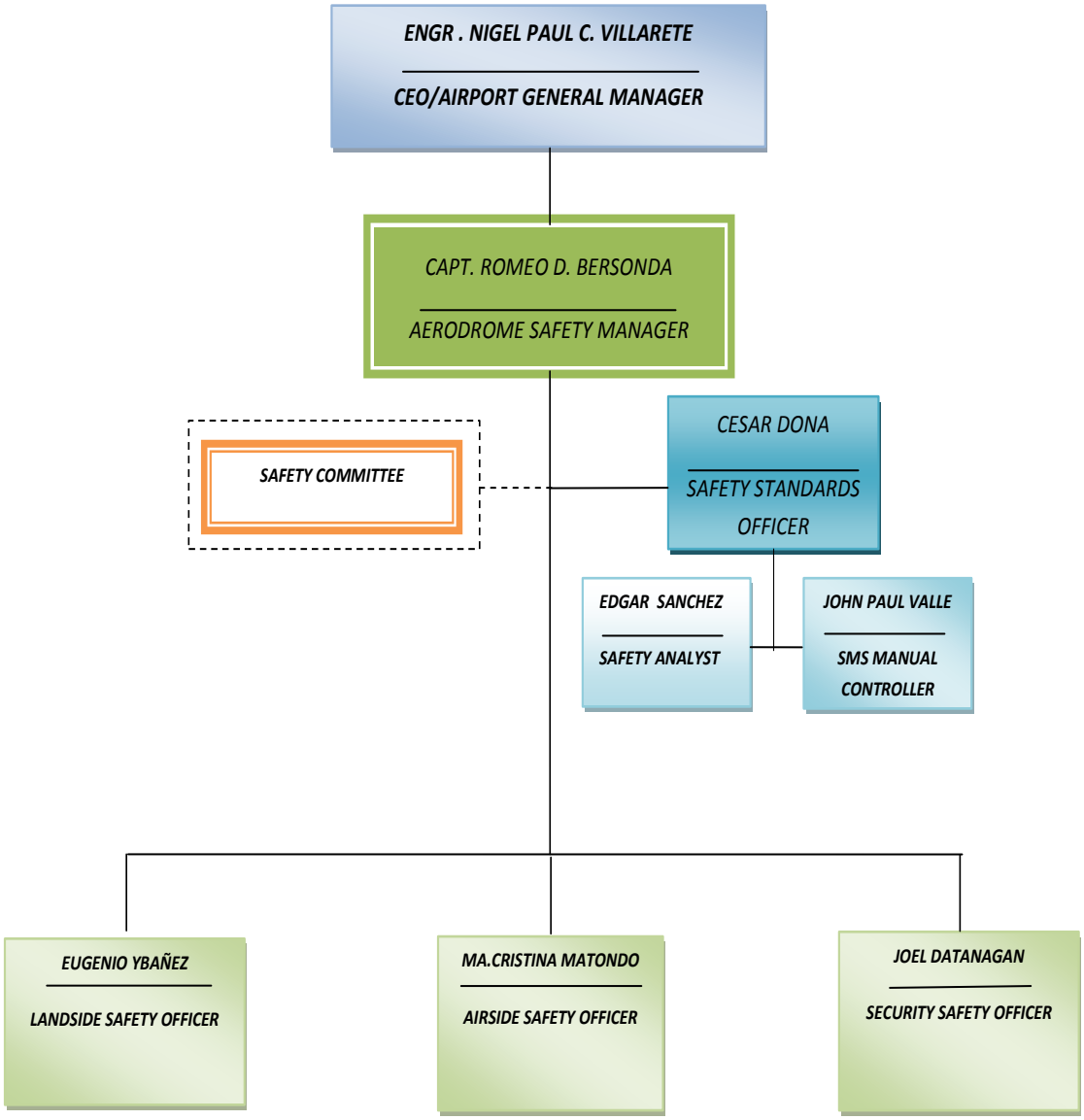


Figure 1.3

SAFETY MANAGEMENT SYSTEM UNIT ORGANIZATIONAL STRUCTURE

1.3.1 Aerodrome Safety Manager

1.3.2 Accountability

The Safety Manager is accountable to the GM/CEO for the safe and efficient operational management of Mactan-Cebu International Airport.

1.3.3 Duties and Responsibilities

a. Responsible for the implementation and administration of the safety management at MCIAA like:

- Review and revision of the safety management program
- Maintaining an appropriate reporting system to identify hazards
- Monitoring the progress of safety reports
- Reporting incidents and accidents as required by legislation

b. Has direct access to the Accountable Executive and appropriate senior and middle management regarding safety matters, authorized to conduct safety audits, surveys and inspections of any aspect of the operations
c. Authorized to conduct safety audits, surveys and inspections of any aspect of the operations like
d. Has the authority to conduct investigations of internal safety events in accordance with the procedures specified in the safety management system manual (SMSM) of the organization like :

- Maintaining a list of personnel who are qualified to participate in safety investigation.

e. Ensuring adequate resource allocation for design, implementation and administration of safety management system
f. Assuming the leadership role to ensure commitment throughout the MCIA to the safety policy intent and safety management system requirements
g. Acts independently of other managers within the organization
h. Responsible for providing information and advice to senior management and to the Accountable Executive on matters relating to safe operations like :

- Providing timely advice and assistance on safety matters to managers and staff at all levels
- Providing feedback about ongoing safety issues
- Distributing relevant and up to date safety information to staff and management

i. Ensuring that all MCIAA personnel are aware of safety guidelines and are held accountable for their safety performance
j. Ensuring provision of adequate level of Fire and Rescue services at MCIAA

k. Ensuring provision of adequately trained and competent manpower to assure safe operational management of the airport like
l. Identifying safety training requirements
m. Ensuring adequate liaison is conducted between various partners and other stakeholders including the state authorities for safe and efficient aircraft operations

1.4 COORDINATION OF EMERGENCY RESPONSE PLANNING (see separate manual MACTAN AIRPORT EMERGENCY PLANNING MANUAL- MAEP)

1.5 SMS DOCUMENTATION

1.5.1 **SAFETY DOCUMENTATION**

As depicted in fig. 2 (see next page) safety documentation includes SMS documentation and safety records.

1.5.2 **PURPOSE**

The purpose of the SMS documentation is to document the Safety Management System (SMS) of the MCIAA and communicate it internally to the whole organization and externally to the stakeholders and to the regulator(CAAP). It enables the correct execution of safety procedures and thus the achievement of the organization's safety objectives.

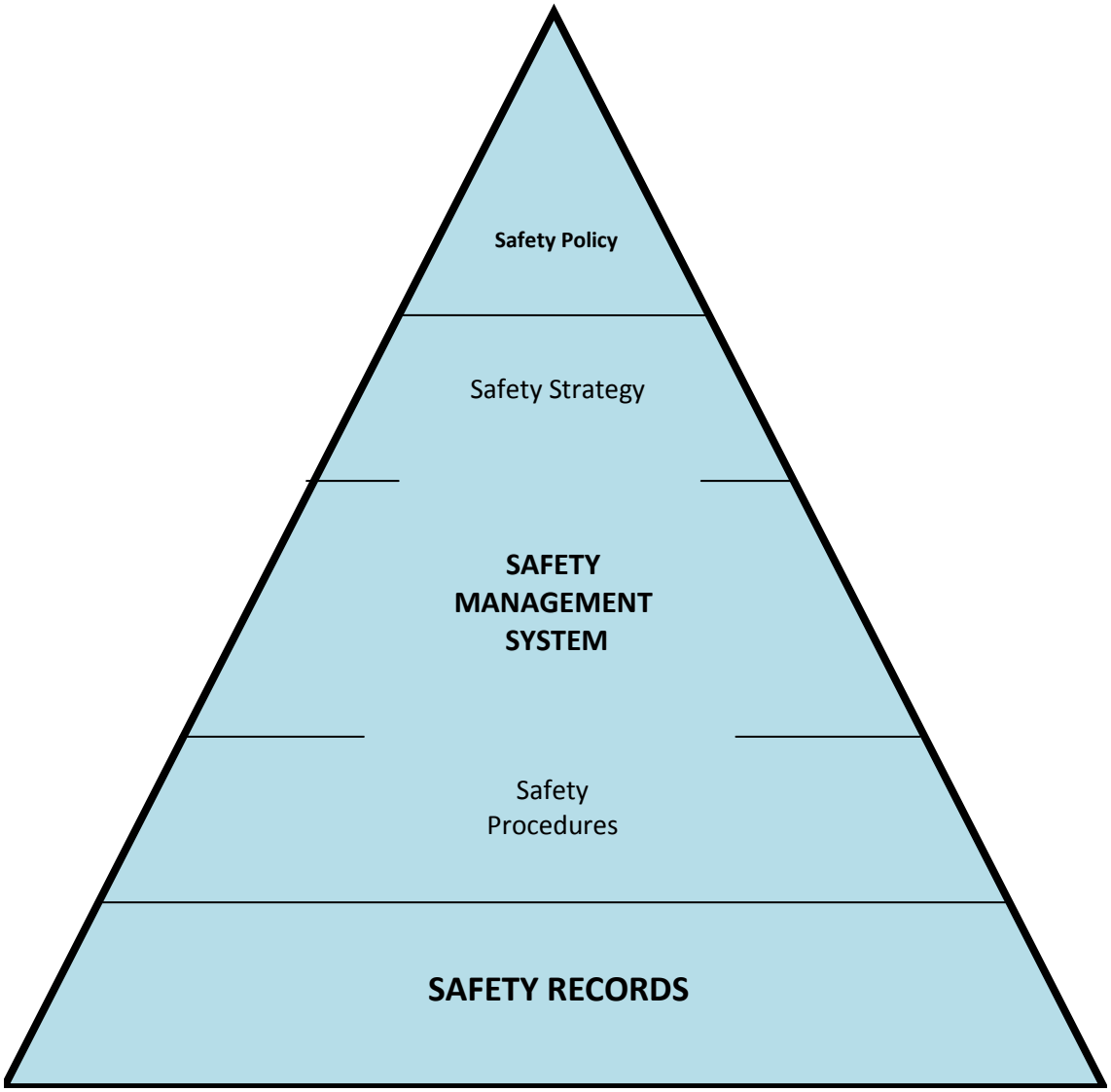


Fig. 2 Safety Documentation

1.5.3 Safety Records

Safety records are maintained in order to provide documented safety assurance to all associated with, responsible for or dependent upon the services provided by MCIAA, and to the regulator. Safety records are needed to demonstrate that the SMS is operated according to the expectations.

1.5.4 Safety Reporting System

1.5.4.1 Any hazard which has the potential to cause damage or injury or which threatens business viability in MCIA should be reported. Hazards, incidents or accidents are reported by staff, management, customers or passengers and external contractors. The forms may be paper or electronic. The report is considered and the need for a solution will be decided in a timely manner. All information is accepted with the aim of fixing problems not punishing people.

1.5.4.2 All records produced shall be legible, identifiable, traceable to the activity, and where staff submits the information, it is recorded on the appropriate form .

1.5.4.3 Reported risks are those that have been identified and can be managed. Unreported hazards and risks are difficult to identify and to fix. The company supports and encourages the open reporting and communication of hazards, incidents and accidents by having:

a. Non-punitive, confidential hazard reporting systems;
b. Formal and informal meetings to discuss safety concerns; and
c. Feedback from management about action taken as a result of hazard reports or safety meetings.

1.5.4.4 Both formal and informal processes are used to gather information from staff about hazards in our organization, including:

a. Hazard Report Forms
b. Safety Audits using Hazard Checklist
c. Confidential hazard reporting
d. Informal communication; and
e. Observations of work practices and work flow

1.5.4.5 Voluntary reporting of non-compliance is encouraged. MCIAA has a policy of not initiating disciplinary action against any employee who reports an incident affecting operational safety. However, blatant disregard of safety standards and rules will incur disciplinary action. If a breach of legislation has occurred the CAAP may also take action.

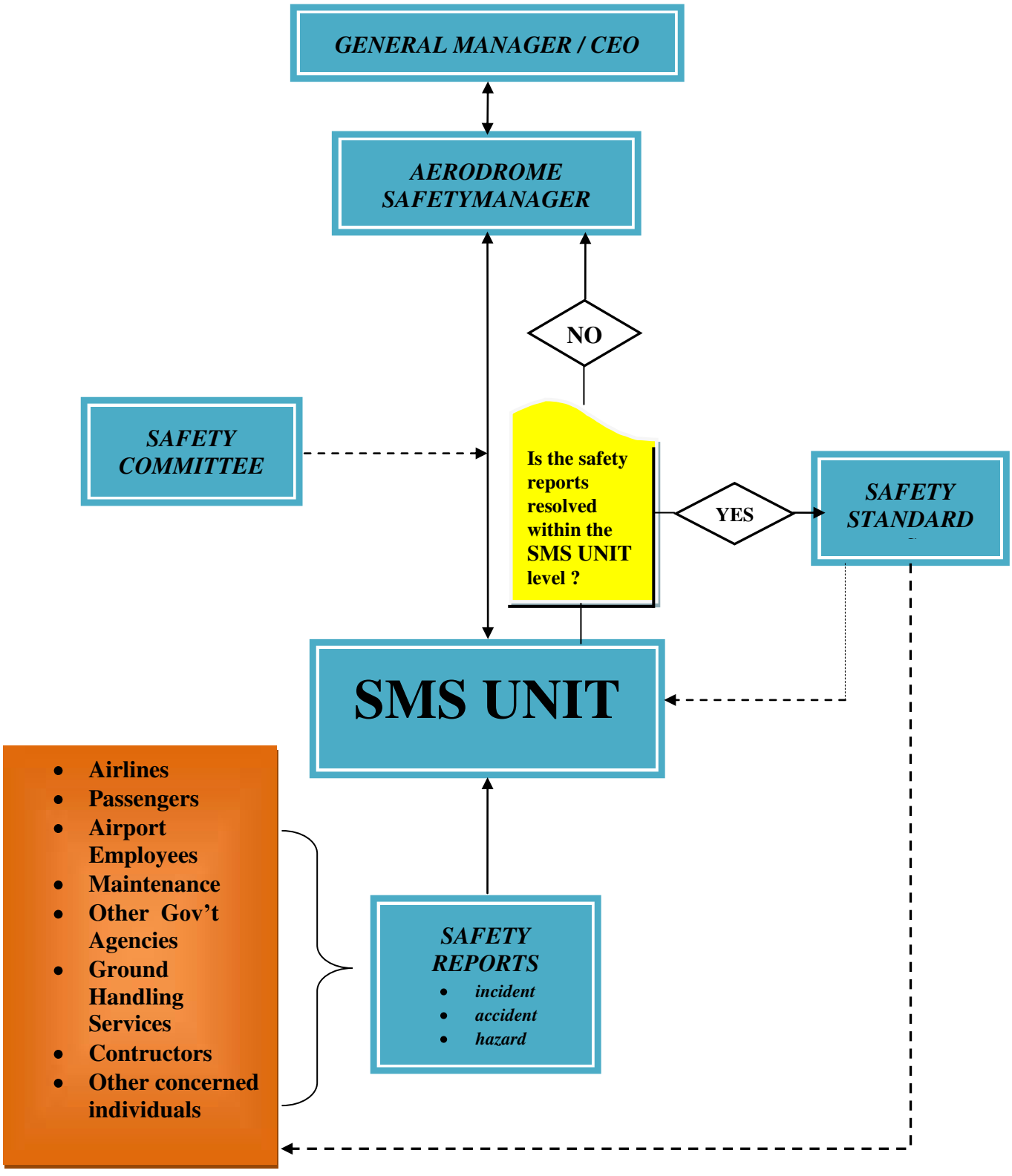


Fig. 3 Safety Reporting Flow Diagram

1.5.5 REPORTING HAZARDS, INCIDENTS AND ACCIDENTS

1.5.5.1 HAZARDS

Any employee observing a hazardous situation that could affect safety is encouraged to report it to the MCIAA Safety Management System Unit or directly to the Safety Manager. The Safety Manager will provide hazard-reporting forms, which may be used, for this purpose. Anonymous reports will be accepted.

1.5.5.2 INCIDENTS:

Apart from aircraft incidents, other incidents are events other than an accident, associated with the operation of the aerodrome that results in injury or damage to vehicles, plant or equipment.

1.5.5.3 ACCIDENTS

Apart from aircraft accident, other accidental damages to vehicles, plant or equipment; death or serious injury to personnel or customers resulting from aerodrome operations; or damage to other property or injury to other personnel resulting from company operations qualify as accidents and must be immediately reported to the Safety Manager. The Safety Manager shall notify the relevant authorities, as required, and conduct investigations into the event.

1.5.6 MANDATORY REPORTING

At MCIA, it is mandatory to report any incident involving an unsafe or potentially unsafe, occurrence or condition, irrespective of whether it involves injury or property damage or not. The report should be submitted to the Safety Management System Unit or directly to the Safety Manager as soon as possible after the occurrence/incident but in any case not later than 24 hours after the incident. The accident/incident reports may be submitted in the desired format.

The person reporting, at his/her own discretion, may or may not disclose his/her identity. It is mandatory to report the following occurrences:

a. Bird strike of an aircraft
b. Abnormal bird concentrations
c. Failure of Navigational/Landing Aids
d. Failure of Communication Services
e. Failure of Aerodrome lighting systems
f. Failure of any facility and procedure used in airside operations; Incorrect transmission, receipt or interception of radio telephone messages (ground to air, ground to ground)

g. Runway obstructed by foreign object
h. Presence of any animals in the operational area and likely to affect safe operations
i. Going round of an aircraft on final approach due runway not being available
j. Major deterioration of services in aerodrome maneuvering area
k. Collision between moving aircraft and vehicles or any other ground equipment
l. Collision between vehicles or vehicles and GSE
m. Fuel spillage
n. Failure in the serviceability of barriers
o. Failure of Firefighting apparatus and equipments capabilities
p. Unreported obstruction to Obstacle Limit surfaces
q. Unsafe storage of construction equipments and materials
r. Unreported security breaches
s. Failure in the serviceability of security barriers
t. Failure to comply requirements on Aerodrome works standards
u. Failure to conduct runway friction testing
v. Failure to conduct regular monitoring and inspection of airside vegetation control
w. Deviation to existing airside security policies and regulations
x. Incorrect taxiway and runway markings
y. Failure to provide safe storage for hazardous chemicals and materials
z. Absence of safety signages on operational areas in the terminal buiding
aa. Lack of traffic signs, construction signs, warning signs, custom signs in the airport operational areas
bb. Failure to perform immediate actions on reported hazard incidents

1.5.7 SAFETY RECORD MANAGEMENT

1.5.7.1 All safety reports are submitted to the Division/Department concerned and the concerned manager will make appropriate actions/recommendations. The formal action report will be forwarded to the SMS Unit for review and finalization.

An official daily observation report is made by operations center and is submitted to the Manager, Airport Grounds Operations Division copy furnished SMS Unit. This report is a summary of all observations, reports, incidents and or accidents in relations to the airside and landside operations that are course through the operations center and informally recorded at the operations center logbook for purposes of recording.

1.5.7.2 **Actions Taken**

The Safety Management System Unit will review all the safety reports submitted according to its nature of concern. Reports concerning landside operations safety will be acted by the landside Safety Officer and those reports concerning airside operations safety will be acted by the Airside Safety Officer. Reports concerning security operations will be acted by the Security Safety Officer. However, those reports which affects safety in the airside operational activities and needs to be discussed with the safety committee will be acted by the Safety Manager. The Safety Manager calls for an Emergency meeting with the Safety Committee if deem necessary or if not may include the report in the agenda of the next Safety Committee regular meeting for discussion.

Recommendations made by the Safety Committee meeting and discussion will be reviewed by the Safety Standards for drafting of necessary safety regulation or policy to effectively addressed the hazard.

1.5.7.3 Informal safety reports are recorded/logged in the operations center log book. Other safety reports are being recorded on the log book of the Division/Department concerned.

1.5.7.4 In due course all safety reports are stored in a data base (networking system) and all safety report forms will be accessed thru the computer (LAN) and shared to the different MCIAA offices and to stakeholders. This activity is included in the PHASE 2 of the SMS implementation plan.

1.5.8 DOCUMENT CONTROL PROCEDURES

1.5.8.1 Document Identification

The SMS Manual was prepared in accordance to the following template:

Section 1 Safety Policy and Objectives

1.1 Management Commitment and Responsibility

1.2 Management Safety accountabilities

1.3 Appointment of Key Safety Personnel (Safety Manager)

1.4 Coordination Of Emergency Response Planning

1.5 SMS Documentation

Section 2 Safety Risk Management

2.1 Hazard Identification

2.3 Risk Assessment and Mitigation

Section 3 Safety Assurance

3.1 Safety performance monitoring and measurement

3.2 The Management of change

Section 4 Safety Promotion

4.1 Training and Education

4.2 Safety Communication

1.5.8.2 **Drawing Up and Presentation**

Fig. 1 - SMS Functional Chart

Fig.1.3 - SMS Unit Organizational Structure

Fig. 2 - Safety Documentation

Fig. 3 - Safety Information flow Diagram

Fig. 4 - Safety Risk Management

Fig. 5 - Safety Assurance Flow Diagram

Table 1 - Illustration (Hazard Analysis)

Table 2 - Safety Risk Probability Table

Table 3 - Safety Risk Severity Table

Table 4 - Safety Risk Assessment Matrix

Table 5 - Safety Risk Tolerability Table

Table 6 - Safety Training and Education

Illust. 1 - Safety Risk Management Diagram

1.5.8.3 Verification

The SMS Manual was corroborated by CEO/Airport General Manager and verified by Aerodrome and Navigational Safety Oversight Office Of the Civil Aviation Authority of the Philippines(AANSOO-CAAP) in coordination with the International Civil Aviation Organization (ICAO).

1.5.8.4 Authorization

The SMS Manual was endorsed by the CEO/Airport General Manager for approval of the Civil Aviation Authority of the Philippines.

1.5.8.5 Distribution List

Copy	Copy Holder	Location
Master Copy	Safety Management Safety Unit	MCIAA
Copy No. 1	Airport General Manager	MCIAA
Copy No. 2	Airport Assistant General Manager	MCIAA
Copy No. 3	Aerodrome Safety Manager	MCIAA
Copy No. 4	Manager, Airport operations Department	MCIAA
Copy No. 5	Manager, Airport Grounds Operations Division	MCIAA
Copy No. 6	Manager, International Terminal Operations Division	MCIAA
Copy No. 7	Manager, Domestic Terminal Operations Division	MCIAA
Copy No. 8	Aerodrome Auditor, AANSOO - CAAP	CAAP, Manila
Copy No. 9	Manager, Cargo and MRO Division	MCIAA
Copy No. 10	Manager, Engineering Department	MCIAA
Copy No. 11	Manager, Emergency and Security Services Department	MCIAA
Copy No. 12	Manager, Rescue and Firefighting Services Division	MCIAA
Copy No. 13	Manager, Police Force Division	MCIAA
Copy No. 14	Manager, Medical Division	MCIAA
Copy No. 15	OIC, General Aviation and Industrial Division	MCIAA
Copy No. 16	Area Manager, CAAP Mactan	CAAP, LLC
Copy No. 17	Chief, Air Traffic Controller	ATC, Mactan
Copy No. 18	Chief, 7TH PCAS	MCIAA
Copy No. 19	Airlines	Mactan Station
Copy No. 20	Ground Handling Companies	Mactan Station
Copy No. 21	General Aviation Aircraft Operators	Mactan Station
Copy No. 22	Aircraft Catering Services	Mactan Station
Copy No. 23	Cargo Handling Companies	Mactan Station
Copy No. 24	Refueling Services Providers	Mactan Station
Copy No. 25	Aircraft Utility Services Providers	Mactan Station

1.5.8.6 Update and Filing

The SMS Manual was completed on January , 2011 and to be submitted to AANSO - CAAP for verification and approval.

1.5.8.7 Amendments

Procedures for Amendment /Revision of the SMS Manual

a. The Safety Manager is responsible for the continuous improvement of the manual including processing, issuance and control of amendments. All copies of the SMS manual are numbered and issued in accordance with the distribution list. Individual holders of a copy of the manual as indicated in the distribution list are responsible for insertion of all amendments.
b. A copy of the amendment will be submitted to the Civil Aviation Authority of the Philippines.
c. Proposed amendment will be submitted to the Civil Aviation Authority of the Philippines.
d. Upon approval by the Chief, AANSOO - CAAP, copies of the approved amendment /revision will be made and distributed to the holders of the SMS manual.
e. The SMS manual amendment/revision page will be completed and submitted with the amendment/revision.
f. Minor amendments (e.g. telephone number, clerical error) can be accommodated by hand amendment with prior approval of the Airport General Manager.
g. Each page of the amendment/revision, including the amendment/revision page will have the date of the amendment/revision and the original approval date of the manual.

If an amendment is to be undertaken in the SMS Manual it is reflected in the Amendment Table below.

Amendment Number	Affected Parts	Affected Pages	Signature	Date

1.5.8.8 **Revisions**

If a revision is to de made in the SMS Manual it is reflected in the Revision Table below.

Version Number	Version date	Items Affected	Details
Initial Issue	March 30,2011	Complete Manual	Initial draft completed for further review by CAAP

SECTION 2

SAFETY RISK MANAGEMENT

Section 2 SAFETY RISK MANAGEMENT

2.1 HAZARD IDENTIFICATION

Hazard identification is the process used to determine all possible situations, events and circumstances that may expose people to injury, illness, disease or death or may cause damage or loss of equipment and property, or damage to the environment.

2.1.1 INCIDENTS

Apart from aircraft incidents, other incidents are events other than an accident, associated with the operation of the aerodrome that results in personnel injury or damage to vehicles, plant or equipment.

2.1.2 ACCIDENTS

Apart from aircraft accident, other accidental damages to vehicles, plant or equipment; death or serious injury to personnel or customers resulting from aerodrome operations; or damage to property or injury to other personnel resulting from company operations qualify as accidents and must be immediately reported to the Safety Manager. The Safety Manager shall notify the relevant authorities, as required, and conduct investigations into the event.

2.1.2.1 Any employee observing a hazardous condition or object that could affect safety at MCIAA is encouraged to report it to the Safety Manager or to the Safety Management System Unit. The Safety manager will provide hazard-reporting forms, which may be used for this purpose. Anonymous reports will be accepted.

2.1.2.2 At MCIA, it is mandatory to report any incident involving an unsafe or potentially unsafe, occurrence or condition, irrespective of whether it involves injury or property damage or not. The report should be submitted to the Safety Manager or to the Safety Management System Unit as soon as possible after the occurrence but in any case not later than 24 hours after the incident(see appendices for incident report forms) The accident/incident reports may be submitted in Standard format. The person reporting, at his/her own discretion, may or may not disclose his/her identity.

It is mandatory to report the following occurrences:

a. Bird strike of an aircraft
b. Abnormal bird concentrations

c. Failure of Navigational/Landing Aids
d. Failure of Communication Services
e. Failure of Aerodrome lighting systems
f. Failure of any facility and procedure used in airside operations
g. Incorrect transmission, receipt or interception of radio telephone messages (ground to air, ground to ground)
h. Runway obstructed by foreign object
i. Presence of any animals in the operational area and likely to affect safe operations
j. Going round of an aircraft on final approach due runway not being available
k. Major deterioration of services in aerodrome maneuvering area
l. Collision between moving aircraft and vehicles or any other ground equipment
m. Collision between vehicles or vehicles and GSE
n. Fuel spillage
o. Apron jet blast incident
p. Breaches of airside driving rules resulting in hazards to aircraft
q. Failure to detect an unserviceable condition of airside facilities
r. Any incident of fire which either necessitates use of fire extinguishers or causes failure of any equipment or facility or disturbs smooth flow of air traffic or passengers or visitors
s. Any incident that has jeopardized safety of passengers / public and was avoided being an accident only by exceptional handling or by good fortune
t. Any incident that causes trauma to passengers/visitor or third party

2.1.3 HAZARD IDENTIFICATION PROCESS

Hazard identification process in MCIAA is done through the following work systems applied in the day to day basis at the airside and landside operations of the airport as follows :

a. visual inspection
b. auditing
c. testing
d. technical or scientific evaluation
e. an analysis of injury or near miss data
f. discussions with designers, manufactures, suppliers, importers, employers, employees or relevant parties.

2.1.3.1 All MCIAA divisions involve in the maintenance of facilities and equipments and operations of the airport conducts regular and periodic inspection of facilities and equipments under their respective area of jurisdiction. The inspection is done through the guide of an inspection checklist/inspection form. Visual inspections are also conducted by duly

authorized technical personnel or any competent personnel for that purpose assigned by the Division Manager.

2.1.3.2 **Airside Inspection**

A daily airside inspection is conducted twice daily through a composite team. The first inspection is conducted in the morning between 6am to 7am to see to it that aircraft movement areas are free of hazard. The second inspection is conducted during night time between 9pm to 10pm to see to it that all pavement, taxiway and runway markings are visible for nighttime aircraft operations and to check that all airside lightings are operational including navigational facilities. Any observation during the inspection is reflected in the Airside inspection forms provided for the activity (Refer to Appendices of this manual for the inspection forms).

The scope of the inspection covers the whole apron and aircraft movement areas, airside navigational equipments and facilities, the airport security access road, airport security posts and the General Aviation Area.

The members of the Inspection team are the following:

a. Airport Grounds Operations Division personnel
b. Airport Police personnel
c. Civil Works personnel
d. Electrical personnel
e. Crash Fire Rescue personnel

Each member will complete the inspection form provided for this purpose (see appendices of this manual for inspection forms) and submit it to the Operations Center Office and furnish a copy to the SMS Unit. The inspection forms are checklists for each concerned personnel line of work including facilities and equipments within their respective area of jurisdiction and the operations of ground support vehicles and equipments on the ramp.

The scope of the inspection covers the whole apron and aircraft movement areas, airside navigational equipments and facilities, the airport security access road, airport security posts and the General Aviation Area.

2.1.3.3 **Landside Inspection**

2.1.3.4 **Terminal and Facility Inspection**

A terminal and facility inspection is conducted daily at the start of the day between 5am to 6am by the Domestic and International Terminal Operations Division authorized personnel by completing a terminal and facility inspection checklist provided for the said activity. The report will be forwarded to the Manager, Domestic Terminal Operations Division and to the Manager, International Terminal Operations Division for review. The purpose of the inspection is to check the status of all terminal facilities including the terminal building to ensure that all problems and hazards within the terminal building are reported on time to address solutions or mitigations in a timely manner so as to assure uninterrupted operations. An inspection form is provided for this activity. Refer to Appendices of the this manual for the inspection forms).

2.1.3.5 **Electrical Facility and Equipment Inspection**

An inspection of electrical facilities and equipments is conducted daily by competent personnel in charge of the following facilities:

a. Airfield lightings
b. Constant Circuit Regulator Room (CCR)
c. Main Sub Station
d. Power Plant

An electrical inspection checklist (refer to the appendices of this manual for inspection form) is provided for the said
activity and to ensure that all electrical works related problems and hazards and hazards are reported and addressed on time.

2.1.3.6 **Mechanical Facility and Equipment Inspection**

An inspection of mechanical facilities and equipments is conducted daily by competent personnel in charge of the following facilities:

a. Centralized Air Condition and Chiller System
b. Split Type Air Condition System
c. Sewage Treatment plant
d. Pump House Plant
e. Boarding Bridge, Elevator and Escalator
f. Baggage Handling System

An inspection checklist form is provided and completed for the said activity and to ensure that all problems and hazards related to mechanical works and operations are reported and addressed on time.

2.1.3.7 **Civil Works Engineering Inspection**

A visual and maintenance inspection of civil engineering facilities is conducted daily by competent personnel in charge of the following:

a. Runway
b. Taxiway
c. Apron
d. Landing zone/grounds
e. Roads and Parking spaces
f. Security and perimeter fences
g. Buildings and other vertical structures

An inspection checklist form is provided and completed for the said activity and to ensure that all problems and hazards related to civil engineering works and operations are reported and addressed on time.

2.1.4 **REVIEW PROCESS**

2.1.4.1 The Safety Manager is responsible for the review of all safety reports contained in the Safety Library. Safety reports that can be resolved within the SMS Unit level will be acted by the Safety Officers concerned. Safety reports that needs resolution and consultation with other stakeholders will be elevated to the Aerodrome Safety Committee for discussion.

2.1.5 **Hazard Analysis** is a three step process used to assess risks.

2.1.5.1 **Steps in Hazard Analysis:**

a. Identify the Generic hazard or the Top Level Hazard
b. Identify Specific hazards or Component Hazards
c. Link specific hazards to specific consequences

Table 1 Illustration (Hazard Analysis)

GENERIC HAZARD	COMPONENT HAZARD	SPECIFIC CONSEQUENCES
1.Taxiway Golf Asphalt Overlay	1.Closed taxiway Gulf 2. Construction equipments 3. Presence of construction workers	1. Aircraft using the wrong taxiway. 2. Aircraft colliding with construction equipment. 3. Worker crossing while an aircraft is taxiing.

2.1.6 DOCUMENTATION OF HAZARDS

Appropriate documentation management regarding hazard identification is important as a formal procedure to translate raw operational safety information into hazard-related knowledge. Continuous compilation and formal management of this hazard-related knowledge becomes the "safety library" of an organization.

In order to develop knowledge on hazards and thus build the "safety library", it must be remembered that tracking and analysis of hazards are facilitated by standardizing:

a. definitions of terms used
b. understanding of terms used
c. validation of safety information collected
d. reporting
e. measurement of safety information collected
f. management of safety information collected

2.1.6.1 Processes for Documentation of hazards in MCIAA

a. Safety Reporting – Refer to Section 1.5.5 (Safety Reporting system) of this manual.

b. Hazard identification - Safety reports are reviewed by the SMS Unit for Hazard identification. Refer to Section 2.4 (Hazard identification Process) of this manual.

c. Hazard Risk Assessment Process and makes studies and researches to develop hazard mitigation systems and processes.

d. Safety Information – the SMS Unit collects all hazard information derived as the product of the hazard assessment process done in terms of consequences and priorities and responsibilities regarding mitigation responses and strategies . These safety information serves as the safety feedback to MCIAA and will be contained in the Safety library used to provide material for safety trend analysis for safety education purposes (safety bulletins, reports, seminars and the like). 2.2 Risk Assessment and Mitigation

2.1.7 Safety Risks Management

Safety Risks Management is the process of classifying the associated risks or consequences of hazards according to its severity or magnitude.

SMS Unit reviews all hazards identified and identify their risks consequences. Following the identification of the risks consequences, classify them according to its severity or magnitude clearly defined as follows :

a. **Intolerable Risks** – are those risks that are practically unacceptable in any level and needs immediate mitigation. The risk probability and magnitude are damaging and poses threat to the viability of the organization in its delivery of services (i.e. runway closure due to disabled aircraft on the runway).
b. **Tolerable Risks** – are those risks assessed as damaging but acceptable based on applied mitigation. Cost benefit analysis is required (i.e. taxiway closure due to disabled aircraft on the taxiway). In this case the taxiway closure does not paralyzed the landing and take off operations.
c. **Acceptable Risks** – the risk is acceptable and manageable. No immediate mitigation is needed.(i.e. busted runway lights fixture)

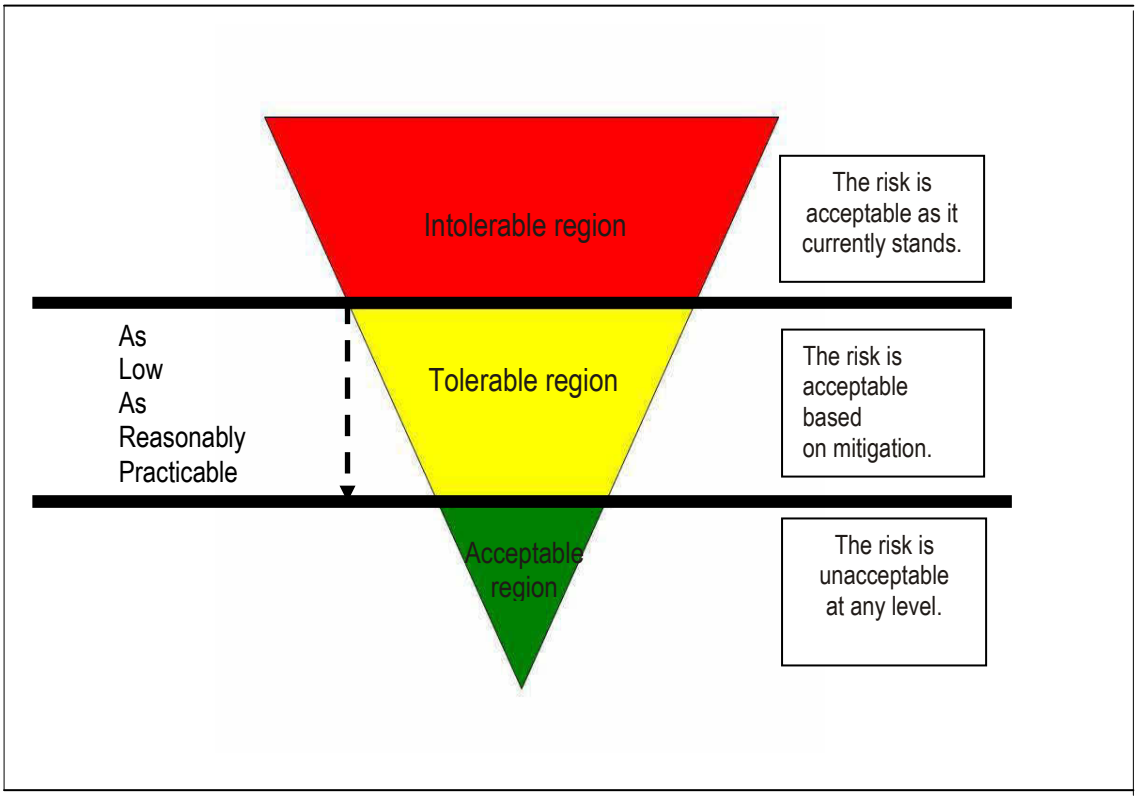


Fig. 4 Safety risk management

2.1.8 Safety Risks Probability

The process of bringing the safety risks of the consequences of hazards under organizational control starts by assessing the probability that the consequences of hazards materialize during operations aimed at delivery of services. This is known as assessing the safety risk probability.

Safety risk probability is defined as the likelihood that an unsafe event or condition might occur.

The definition of the likelihood of a probability can be aided by questions such as :

a. Is there a history of similar occurrences to the one under consideration, or is this an isolated occurrence?

b. What other equipment or components of the same type might have similar defects?

c. How many personnel are following, or are subject to, the procedures in question?

d. What percentage of the time is the suspect equipment or the questionable procedure in use?

e. To what extent are there organizational, management or regulatory implications that might reflect larger threats to public safety?

2.1.8.1 Safety Risks Probability is conducted by the SMS Unit by reviewing and assessing all safety reports, documents and safety data contained in the MCIAA Safety Library, apply answers to the sample questions above as an aide to determine the likelihood of the probability of an unsafe event as depicted in the table below:

Qualitative Definition	Meaning	Value
Frequent	Likely to occur many times (has occurred frequently)	1
Occasional	Likely to occur sometimes (has occurred infrequently)	2
Remote	Unlikely to occur, but possible (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	4
Extremely Improbable	Almost inconceivable that the event will occur	5

Table 2 **Safety Risks Probability Table**

2.2.4 Safety Risk Severity

Safety risk severity is defined as the possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation. The assessment of the severity of the consequences of the hazard if its damaging potential materializes during operations aimed at delivery of services can be assisted by questions such as:

a. How many lives may be lost (employees, passengers, bystanders and the general public)?

b. What is the likely extent of property or financial damage (direct property loss to the operator, damage to aviation infrastructure, third-party collateral damage, financial and economic impact for the State)?

c. What is the likelihood of environmental impact (spillage of fuel or other hazardous product, and physical disruption of the natural habitat)?

d. What are the likely political implications and/or media interest?

At MCIAA the SMS Unit conducts assessment of the consequences of all identified hazards according to its magnitude in the worst foreseeable scenario. This is conducted by assessing all safety reports in the Safety library and assessed each report by applying severity analysis index below:

Severity of Occurrence	Meaning	Value
Catastrophic	- Equipment destroyed - Multiple deaths	A
Hazardous	- A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely - Serious injury - Major equipment damage	B
Major	- A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in work load, or as a result of conditions impairing their efficiency - Serious incident - Injury to persons	C
Minor	-Nuisance - Operating limitations - Use of emergency procedures - Minor incident	D
Negligible	Little consequences	E

Table 3 **Safety Risk Severity Table**

2.1.9 Safety Risk Tolerability

Once the safety risk of the consequences of an unsafe event or condition has been assessed in terms of probability and severity, the third step in the Risk Management is the process of bringing the safety risks of the consequences of the unsafe event or condition under organizational control. Assessment of the tolerability of the consequences of the hazard if its damaging potential materializes during operations aimed at delivery of services.

2.1.9.1 Safety Risk Tolerability Assessment Process

1. **Obtain an overall assessment of the safety risk.**

   This is achieved by combining the safety risk probability and safety risk severity tables into a safety risk assessment matrix, an example of which is presented in Figure 2.2.4 below (Safety Risk severity Table).
   For example, a safety risk probability has been assessed as occasional (4). The safety risk severity has been assessed as hazardous (B). The

composite of probability and severity (4B) is the safety risk of the consequences of the hazard under consideration.

2. The safety risk index obtained from the safety risk assessment matrix must then be exported to a safety risk tolerability matrix that describes the tolerability criteria. The criterion for a safety risk assessed as 4B is, according to the tolerability table in Figure 2.2.4 “unacceptable under the existing circumstances”. In this case, the safety risk falls in the intolerable region of the inverted triangle. The safety risk of the consequences of the hazard is unacceptable.

2.1.9.2 **Mitigation**

a. allocate resources to reduce the exposure to the consequences of the hazards;

b. allocate resources to reduce the magnitude or the damaging potential of the consequences of the hazards; or

c. cancel the operation if mitigation is not possible.

The SMS Unit determine the Safety Risks Tolerability by applying the Risk Tolerability Index below:

Risk Probability	**Risk Severity**				
	Catastrophic A	**Hazardous B**	**Major C**	**Minor D**	**Negligible E**
Frequent 5	**5A**	**5B**	**5C**	**5D**	**5E**
Occasional 4	**4A**	**4B**	**4C**	**4D**	**4E**
Remote 3	**3A**	**3B**	**3C**	**3D**	**3E**
Improbable 2	**2A**	**2B**	**2C**	**2D**	**2E**
Extremely improbable 1	**1A**	**1B**	**1C**	**1D**	**1E**

Table 4 Safety Risks Assessment Matrix

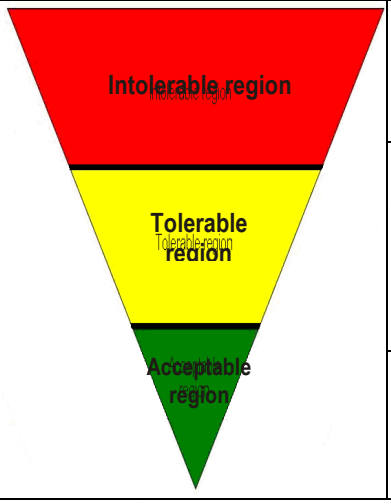
Suggested Criteria	Assessment risk index	Suggested criteria
	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances
	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C	Acceptable based on risk mitigation. It may require management decision.
	3E, 2D, 2E, 1A, 1B, 1C, 1D, 1E	Acceptable

Table 5 Safety Risk Tolerability Table

2.1.10 Safety Risk Control/Mitigation

The fourth and final step of the process of bringing the safety risks of the consequences of an unsafe event or condition under organizational control, control/mitigation strategies must be deployed to address the hazard and bring under organizational control the safety risk probability and severity of the consequences of the hazard.

Continuing with the example presented in 2.2.6, the safety risk of the consequences of the hazard under analysis has been assessed as 4B ("unacceptable under the existing circumstances"). Resources must then be allocated to slide it down the triangle, into the tolerable region, where safety risks are ALARP (As low as Reasonably Practicable). If this cannot be achieved, then the operation aimed at the delivery of services which exposes the organization to the consequences of the hazards in question must be cancelled. Figure 5-6 presents the process of safety risk management in graphic format.

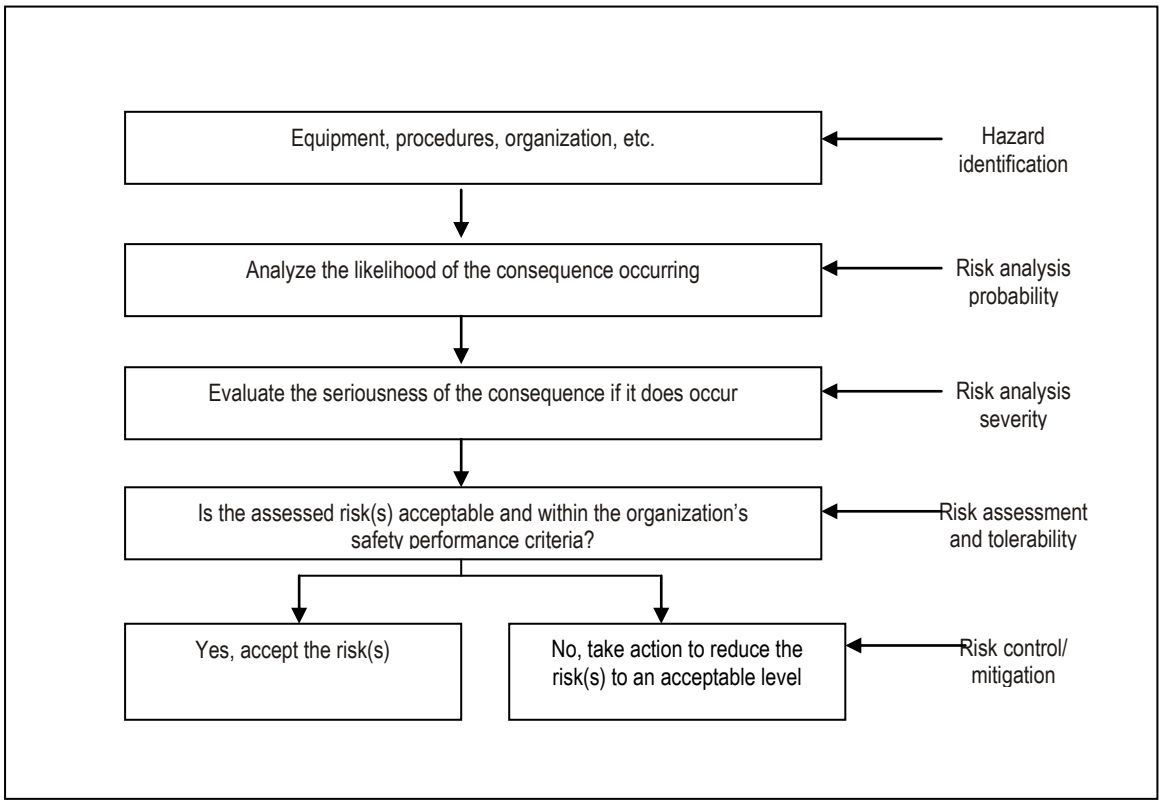


Illustration 1 - Safety Risk Management Diagram

2.1.10.1

After assessment of the hazards identified, or as a result of an investigation into an incident or accident, the Safety Manager assigns a priority to the risk associated with the hazard, incident or accident and identify the best risk treatment option. The Safety Manager elevates hazards that needs involvement of other organizations/stakeholders to the Safety Committee for discussion of risk mitigation/treatment.

Safety information can help in the assessment and evaluation of these breakdowns with the goal of preventing its occurrence through an effective operational error management and to apply the three strategies to control operational errors namely:

a. Reduction
b. capturing and
c. tolerance strategies.

Corrective and preventive actions have to be discussed between the General Manager and the Safety Manager based on Safety information and Safety Reports.

The Safety Manager prioritizes the action/s required, to ensure remedial action is undertaken in a timely manner. When immediate response is required, the Safety Manager takes all necessary steps to resolve the situation and may revert to following emergency procedures as required.

Except where circumstances exist clearly preventing such an outcome, company policy is to treat risks in the following order of preference:

a. Eliminate the hazard/risk completely
b. Reduce the level of risk, or the consequences or likelihood of that risk occurring;
c. Avoid the risk by actions such as closing the aerodrome for a period
d. Transfer the risk to other risk stakeholders (such as insurers) or
e. Accept the risk

The Safety Manager reports the outcome of the assignment of each risk to the personnel making the report. The results of treatment options may be communicated generally using one of the means stated Section 4.2 (Safety Communication).

The Safety Officer responsible for taking action to address and assessed risk will report to the Safety Manager on the results. If the risk has been categorized as a "Short Term Corrective Action", the responsible manager/supervisor shall report back to the Safety Manager within 2 months of the date of report.

The Safety manager makes periodic reviews of the Hazard Log/Reports for trends in risk. Unless there are reasons, this trend should be towards less risk over time, as hazards are identified and treated.

Depending on the severity and magnitude of the risks associated for a particular hazard identified at MCIA, the following proposed actions to treat the risks are recommended whichever is most appropriate considering its cost and effectiveness:

a. Reprimand
b. Recurrent training of personnel
c. Ongoing review of a particular activity or task
d. Improve personnel supervision
e. Targeted safety information or advice
f. Limit exposure to the risk
g. Availability of documented Procedures
h. Improve staff and management commitment to work safety.
i. Adequate resource allocation for safety related activities
j. Testing the procedures of the Airport Emergency Plan(drill exercises)

k. Close supervision of security personnel assigned at airside access gates
l. Make representations with identified nearby barangays regarding the need to pass an ordinance prohibiting the flying of kites within the vicinity of the airport's obstacle limitation surface area.

A formal report for each action taken on each particular risk will be submitted to the Airport General Manager by the Safety Manager for his information, review and approval for implementation.

Example 2.1.3 Hazard Identification and Risk index calculation. (Note: this is merely an illustration and does not take into account all the possible hazards, risks and control/mitigation measures at MCIA).

Identify **Type of current measure further action to reduce** **State generic specific identity** **Hazard to operation procedure risk(s) and resulting risk** **Hazard components risk(s)**					**Responsibility**
6/2008 AERODROME WORKS SAFETY-Ramp Operations Incident	Service Stairs of CPA hit by Qatar aircraft	Damage to aircraft parts Damage to Equipment Risk index: 2B Risk tolerability : Acceptable based on risk mitigation/requires management decision	1. Ensure GSE is placed in its designated standby safety boxes/areas 2. Ensure routine safety check by maintenance personnel in the parking area before the aircraft lands is conducted 3. Pilot to ensure safety check on the area for any possible obstruction Risk index: 2C Risk tolerability: Acceptable after application of mitigation	1. Safety routine checks on the parking area surroundings by designated maintenance personnel Risk index: 2E Risk tolerability: Acceptable	1. Works safety officer/ Maintenance officer 2. Ground shift supervisor/works safety officer
06/2008					

CPA – Cebu Pacific Air GSE - Ground Support Equipment

SECTION 3

SAFETY ASSURANCE

SECTION 3 Safety Assurance

Introduction

Safety risk management requires feedback on safety performance to complete the safety management cycle. The safety risk management process culminates in development and implementation of appropriate safety risk controls. Once controls for the safety risks of the consequences of hazards are designed, deemed to be capable of controlling safety risks, and put into operation, safety assurance takes over safety risk management.

Safety assurance consists of processes and activities undertaken by the organization to provide confidence as to the performance and effectiveness of the controls. Deterioration in operational procedures, facilities and human performance would signal the need to return to the safety risk management process to review and revise existing safety risk controls or develop new ones

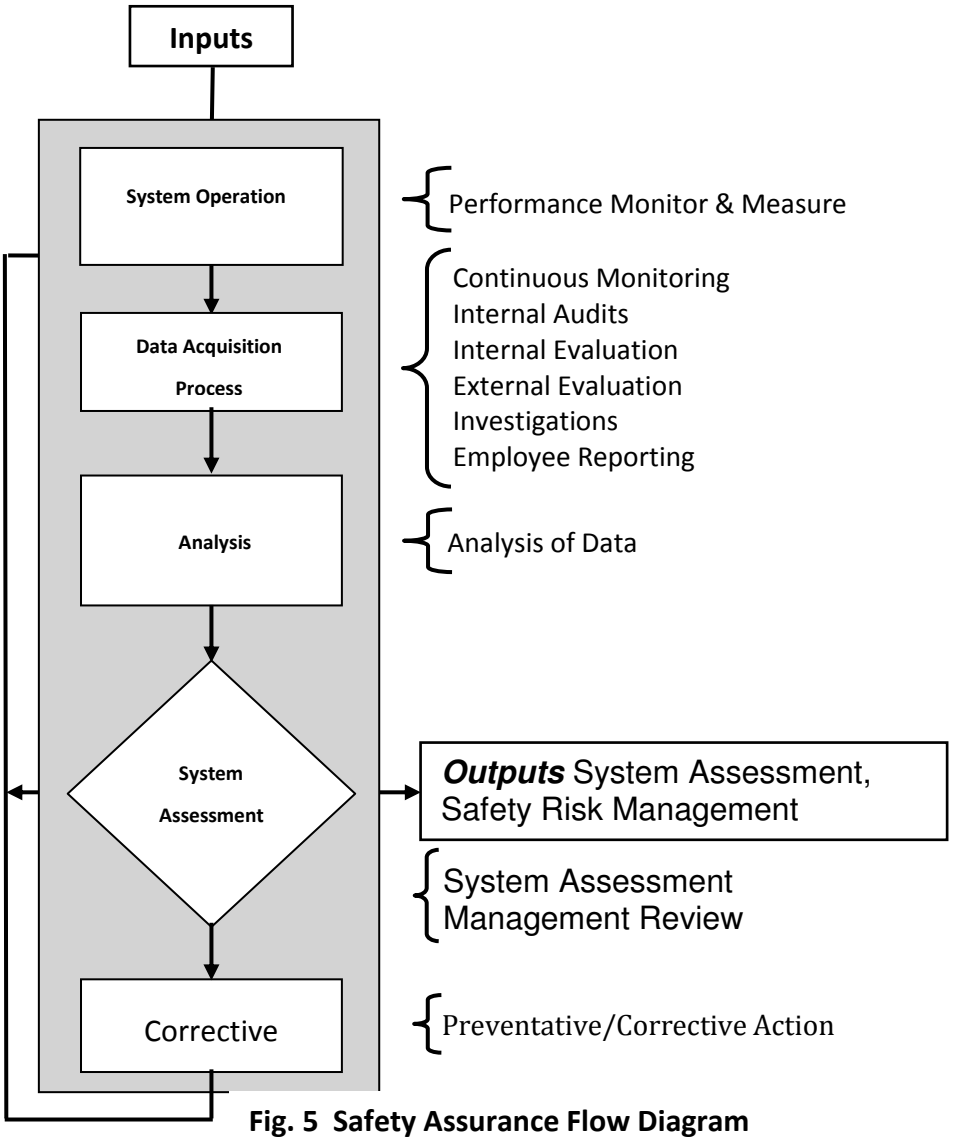


Fig. 5 Safety Assurance Flow Diagram

3.1 SAFETY PERFORMANCE MONITORING AND MEASUREMENT

The primary task of safety assurance is control. This is achieved through safety performance monitoring and measurement, the process by which the safety performance of the organization is verified in comparison with the safety policy and approved safety objectives. Safety assurance control is conducted by monitoring and measuring the outcomes of activities that operational personnel must engage in for the delivery of services by the organization.

3.1.1 Data Monitoring Plan

Data will be collected quarterly using paper surveys and theoretical data collection sheets as well as electronic data storage. Paper data records will be stored in a locked location in the Safety office. Electronic files containing confidential participant information will be stored on the local area network at the SMS office, using a password protected folder through which Safety staff may access and update records.

3.1.2 Safety Monitoring Plan

In line with MCIAA Accident / Incident reporting procedure or theoretical data which Risk Rating higher than Tolerable level, the elements will be reactively monitored. Based on the issued MCIAA safety procedures, a range of active safety performance indicators is established and will be used to assess compliance with the requirements of the procedures. Active monitoring performance indicators will be reviewed (and may be changed) as procedures are issued or modified.

On a quarterly basis, a report will be sent from each department to the SMS Unit. The report will be used to update the Safety Action Plan with

a. Accidents and Incidents,
b. Compliance with performance indicators,
c. Summary of activities within the quarter.

3.2 Management of Change

Changes in organizations occur constantly due to many factors: expansion, contraction, changes and upgrades of equipment, programs, products and services. With these changes, hazards are introduced. Safety management practices require that hazards that are a by-product of change be systematically and proactively identified and those strategies to manage the safety risks of the consequences of hazards be developed, implemented and subsequently evaluated.

The key activities are;

a. Monitoring,
b. Informing and communicating,
c. Control activities (reviews and reports).
d. Risk Assessments

In order to demonstrate that we have adequate control over our safety systems we must also be able to demonstrate control over the wider operational environment.

3.2.1 Risk

If not properly controlled changes could be made which negatively impact on the business and prevent people from fulfilling their roles. Changes could be made by individuals who are not fully aware of the impact on other areas of the business. If change is not controlled the organization could be exposed to fraudulent activities.

3.2.2 Responsibility

The SMS Safety Manager ensures that changes follow the change management procedure. The change management schedule is reviewed quarterly to ensure all changes follow the procedure by both Management and Safety Committee.

3.2.3 Change Procedures

All communications need to be in writing, i.e. by email, meetings need to have minutes taken etc. This documentation will be retained by the SMS Controller and filed with the Change Documentation relating to the change. For this reason verbal requests and authorization are not acceptable.

1. **Submit The Change Request**

a. Enter as much detail as possible in the Request Details section. If this change will affect other departments please enter the names of the Department Managers in the Other Departments Affected section.

b. Once the request has been completed send them to the safety officer. They will log the request and pass it to the SMS Controller so that the change can be scheduled.

2. **Review the Specification**

The Change Request will be reviewed by the SMS Controller who will gather additional information, add Department Managers deemed to be affected

and arrange meetings. Then the SMS Controller creates a specification detailing exactly what is being changed, which is sent to all Safety Committee members. The specification should incorporate all the requirements.

a. The Safety Committee carefully review the specification to ensure that all the requirements and their particular interests are covered.

b. The Safety Committee will need to approve the specification.

3. **Risk Assessment**

The SMS Controller will check all the Risk Assessment and processes affected by the proposed change and list recommendation of change. A copy of the Risk Assessment, including the change recommendation, will be sent to the Safety Committee.

a. Check the Risk Assessment and Recommendation carefully to make sure that nothing has been missed.

b. Notify the Safety Manager, of any missing risks or if there are problems with the recommendation.

c. Authorize the Risk Assessment and Recommendation.

4. **Implementation Plan**

The Implementation Plan details all the stages that are required in order to successfully manage the change and include a Test Plan and Roll Back Strategy. In more complicated changes this may also include a project schedule and timeline.

a. Review the Implementation Plan.

b. Make the SMS Controller aware of any amendments or changes.

c. Make note of the timeline and any training or testing and how this will affect department staff.

d. Make note of any dependant tasks (i.e. if one department is unable to make a change until another has completed theirs).

e. Authorize the Implementation plan.

5. **Pre-Change**

Once the Implementation Plan has been approved it is vital that the staff in each department is made aware of what needs to happen, when and by whom. The SMS Safety Manager:

a. Notifies affected Staff of the change and assigns actions and makes them aware of the Strategy.

b. Ensures that Staff who have been allocated Test Actions have copies of the Test Plan and are aware that all test documentation is to be retained.

c. Safety Manger and the Change Management Controller shall ensure that all aspects of the change are progressing as planned.

6. **Change**

To minimize unnecessary disruption ensure that the plan is followed as closely as possible and any issues are highlighted to the SMS Controller as soon as possible. The SMS Controller will co-ordinate communications between all the Safety Committee Board.

Ensure all staff follow the Implementation Plan.

Post Implementation Review:

Once a change has been implemented it is important that the situation is reviewed to identify any problems that could be prevented in future or improvements that could be made.

The Safety Committee will carry out a Post Implementation Review one month after the change has been promoted to Live (unless problems or issues present themselves more immediately).

Two months after the change has been implemented the Safety Committee will conduct a further review.

The SMS Safety Manager will review Change Documentation and follow up material quarterly. The minutes and action points of these reviews are held on file with the SMS Controller.

The Safety Officers will examine the Change Management Documentation on a half yearly and End of Year basis and their comments and recommendations will be acted upon.

3.3 CONTINUOUS IMPROVEMENT AND AUDIT

3.3.1 **Continual Improvement Activities**

The planning, coordination and control of activities for continual improvement is the responsibility of the Safety Manager and the Safety Officers. Continual improvement activities include - but are not be limited to - the following:

a. activities of the Safety Officers under the responsibility of the Safety Manager
b. actions on results from analysis of data
c. evaluation of Safety
d. achievement of departmental Safety objectives
e. results from internal Safety audits
f. corrective actions and preventive actions (CAR)
g. periodic review of controlled documents

The objectives of the corporate Safety Policy are taken into consideration for planning of improvement. During SMS Reviews, the effectiveness of continual improvement is reviewed and opportunities for improvement are identified.

3.3.2 **Informal Inspection**

Informal inspections are carried out by employees and work site supervisors in their own work areas on a daily, weekly, monthly or annual basis. Work sites that are not used on a daily or weekly basis are visually inspected upon entry. Supervisors and employees should develop an informal inspection checklist that is specific to their work area.
Only those inspections that result in a problem being identified will be reported. Identified problems will be reported by the work site supervisor to the Manager responsible for the work site and will state what the problem is, what action was taken and outline any recommendations for change. It is recommended that all informal inspections be recorded to show due diligence.

3.3.3 **Formal Inspection**

SMS Unit is responsible to ensure a safe and healthy workplace and is responsible to inspect the workplace to ensure its safety. The formal inspection shall be conducted by the Safety Manager at least annually and must include any forms used during the inspection along with any written recommendations.. The Safety manager will send the workplace Formal Inspection Form to the concerned Manger with a copy to the Safety Committee.

3.4 ACCIDENT/INCIDENT INVESTIGATION PROCEDURE

No.	Steps	Notes
1	Check work site where accident incident occurred.	When first notified, ensure host employer does not move or change anything at the accident / incident work site (if possible).
2	Interview Co-workers, supervisor, host employers representative and worker (if possible).	Use accident investigation control document to ensure full history of accident / incident is documented.
3	Sketch diagram of work site where accident / incident occurred.	Include at least the following:- • layout of immediate work site • work operation at time of accident / incident • materials/stock/equipment involved how the accident / incident occurred (if possible)
4	If possible, and can be completed in a safe manner, observe others undertaking the same task.	Observe for system failures or contributing factors ie: distractions, complacency, repetitive task, environmental factors etc.
5	Discuss accident / incident with host employers OHS representative (if applicable) and the workers direct supervisor.	Determine whether accident / incident occurred through failure of the following systems, policies or procedures:- • employee training/induction • work practice • supervisory control (direct/indirect) • machinery/tools work site layout
6	Determine how future accidents / incidents could be avoided / controlled	Liaise with host employer and make suggestions, recommendations.

When the Accident/Incident Investigation occur, the Accident/Incident Investigation Checklist and the Accident/Incident Investigation Report are used (see Appendix)

SECTION 4

SAFETY PROMOTION

SECTION 4 SAFETY PROMOTION

Safety promotion are processes and procedures that ensure that personnel are trained and competent to perform their safety management duties and allow for communication of safety issues among operational personnel and with the organization's management.

Through safety promotion an organization adopts a culture that goes beyond merely avoiding accidents or reducing the number of incidents, although these are likely to be the most apparent measures of success. It is more to do the right thing at the right time in response to normal and emergency situations.

4.1 SAFETY TRAINING AND EDUCATION

4.1.1 Training – General

4.1.1.1 An organization's safety culture is adhered to the success of its safety management training program. All personnel must understand the organization's safety philosophy, policies, procedures and practices, and must be aware of their roles and responsibilities within that safety management framework. Safety training begins with the initial familiarization of employees and continue throughout their employment. Specific safety management training are provided for staffs who occupy positions with particular safety responsibilities. The training program ensures that the safety policy and principles of the organization are understood and adhered to by all staff, and that all staff concerned is aware of the safety responsibilities of their positions.

4.1.1.2 The Safety Management System Unit through its Aerodrome Safety Manager develops a training program relating to the functioning of the safety program for the induction/refresher training of all relevant personnel. The details of the safety responsibilities would then be added to the job descriptions and records reflecting dates, names, subjects covered and course presenters will be maintained.

4.1.1.3 Where government or commercial training providers have a relevant course, the Safety Management System Unit may arrange for staff training external to the company.

4.1.2 TRAINING PROGRAMS

4.1.2.1 The Safety Management System Unit through its Safety Manager would, in conjunction with the personnel department, review the job descriptions of all staff and identify those positions that have safety responsibilities. The details of the safety responsibilities would then be added to the job descriptions. Once the job descriptions have been updated, the Safety Manager should conduct a training need analysis to identify the training that will be required for each position.

4.1.2.2 Depending on the nature of the task, the level for safety management system training required will vary from general safety familiarization to expert level for safety officer (safety specialists), for example:

a. Corporate safety training for all staff according to training needs evaluation

b. Training designed at management's safety responsibilities

c. Training for operational personnel

4.1.2.3 During the initial implementation of an SMS, specific training will be provided for existing staff. Once the SMS is fully implemented, the safety training needs of those other than the safety officer (safety specialist) should be met by incorporating the appropriate safety content into the general training program for their positions.

4.1.2.4 One of the functions of safety management training is to create awareness of the objectives of the SMS of the organization and the importance of developing a safety culture. All staff would receive a basic introductory course covering:

a. Basic principles of safety management;

b. Organizational safety philosophy, safety policies and safety standards (including organizational approach to disciplinary action versus safety issue, integrated natures of safety management, risk management decision-making, safety culture, etc.)

c. Importance of complying with the safety policy and with the procedures that form part of the SMS

d. Organization, roles and responsibilities of staff in relation to safety

e. Corporate safety record, including areas of general weakness

f. Corporate safety goals and objectives

g. Corporate safety management programs (e.g. incident reporting systems, voluntary reporting scheme and incident recall meetings)

h. Requirement for ongoing internal assessment of organizational safety performance (e.g. employees surveys, safety audits and assessments)

i. Reporting accidents, incidents and identified hazards

j. Lines of communication methods for safety matters

k. Feedback and communication methods for the dissemination of safety information

l. Safety awards programs (if applicable)

m. Safety audits

n. Safety promotion and information dissemination

4.1.3 Safety Training for Management

It is necessary that the management team must be fully aware and knows the safety standards on which SMS is supported. Training guarantees managers and supervisors to be well versed of the viewpoint of the Safety Management System and their accountabilities and responsibilities with regards to safety. In short, proper training is a must.

4.1.4 Safety Officer's (Safety Specialist) Training

4.1.4.1 Various safety associated task needs well verse and trained personnel, it comprises training to :

a. Investigate safety occurrences

b. Monitor safety performance

c. Perform safety assessments

d. Administer safety data bases

e. Conduct safety audit

4.1.5 Safety Training for Operational Personnel

4.1.5.1 In addition to the corporate introduction outlined above, personnel engaged directly in airport operations will require more specific safety training with respect to :

a. Procedures for reporting accidents and incidents;

b. Unique hazards facing operational personnel

c. Procedures for hazard reporting;

d. Specific safety initiatives, such as safety committee(s), seasonal safety hazards and emergency procedures.

e. Managing safety databases

f. Performing safety audits

Note :

It is mandatory that staff performing these task receive proper training in the special methods and technique involved, on how important the training requires and the level of existing expertise in safety management within the organization, acquiring assistance from external specialist is also necessary to get hold of that expertise

Safety Training and Education – A building block					
	Operational Personnel 1) Organizations Safety Policy 2) SMS fundamentals and overview	+	**Managers and Supervisors** 3) The safety process 4) Hazard identification and risk management 5) The management of change	+	**Senior Managers** 6) Organizational safety standards and national regulations 7) Safety Assurance

Table 6 Safety Training

4.1.6 MCIA Training Standards Program

The Mactan – Cebu International Airport has adopted the MCIA Training Standards Program to enhance safety, security and customer service within the airport area of responsibility. In line with these, the program is required by the Mactan – Cebu International Airport Authority to generate and provide well – trained workforce as maintaining airport safety and security as well as customer service being one of its primary objective which is significant for the successful operation of the aerodrome.

4.1.6.1 General Standards

The MCIA Training Standards Program provides basic standards and requirements for training of all employees, requirements for training records, and annual training updates and certifications. The training standards are focused in four general areas:

Area	General Standards
Safety	General safety standards and evacuation procedures for emergency situations
Security	Compliance with security regulations and knowledge of the security concerns specific to an airport
Customer Service	Appropriate positive interaction with passengers in representation of the airport and the employer
Assisting Persons with Disabilities	Proper etiquette in assisting persons with disabilities and compliance with Person with Reduced Mobility regulations

4.1.6.2 Personnel Covered per Type of Badge and Access Requirements

The program is applicable to all employees as well as new entrants, and both current and future employees, contractors and vendors of employers who work at Mactan - Cebu International airport. It includes but is not limited to individuals who have one of the following airport security badges:

a. Aircraft Movement Area (AMA)

b. Terminal (Landside / Airside)

c. General Aviation Area

d. Cargo Area

4.1.7 Training Delivery Methods

4.1.7.1 MCIA General Training Modules

The MCIA General Training Modules will be provided by the Safety Management System Unit in the following formats :

a. PowerPoint presentation

b. Train-the-Trainer for employers to provide the training to their employees

c. Orientation Sessions or Orientation Packets for employers to present to their new employees.

Note:

New employees should receive orientation within the first month the new employee is working at the airport. This includes employees transferring from other locations/airports.

4.1.7.**2** MCIA Badging System

The MCIAA Airport Badging System will be administered by the Emergency, Security Services Department through the ID/Intel Pass Division.

4.1.7.2.1 Role Specific Training Modules

The Role Specific Training Modules will be provided either through the badging process or provided to the employer to present to their employees, dependent upon the type of training. Employers must ensure required training modules are provided to applicable employees.

4.1.8 Training Requirements

The individual training standards and requirements for each employee are determined by several factors:

a. MCIAA Airport ID System

b. Role (Job Function)

c. Passenger / Customer Contact

d. Work Location

The minimum training standards for each type of employee are based primarily on their security badge, with additional training based on their role, work location, and contact with passengers. Attachment A lists the training standards for each type of employee. Attachment C-4 provides a short description of each training module.

4.1.9 Employees Impacting Safety

Employees in this category include those directly engaged in activities which may impact safety within the Aircraft Movement Area (AMA) or in and around the terminal. These employees include but are not limited to the following :

a. Employees providing ramp handling functions including aircraft cleaning, fueling, and baggage / cargo handling

b. Employees operating catering vehicles regularly on the AMA for servicing aircraft

c. Other employees issued a Restricted Area Badge (RAB) with AMA access working in and around the AMA in the performance of their duties

d. Employees stationed within the airport, including concessionaires

4.1.10 Employees Impacting Security

Employees in this category include those directly engaged in performing checkpoint security screening, passenger check-in activities; catering services and baggage check-in and handling services, Aircraft Movement Area (AMA) perimeter control, and other employees issued an airport Restricted Area Badge (RAB) with AMA access working in and around the AMA in the performance of their duties.

4.1.11 Employees in Contact with Passengers and Customers

Employees in this category include those directly engaged in activities bringing them in contact with passengers and other customers including employees of other organizations. These employees include but are not limited to the following:

a. Employees interacting directly with passengers including passenger check-in activities, and baggage check-in and handling services, gate assistance and loading, food and beverage service, retail service, car rental, wheelchair escorts, parking attendants, and airport parking and car bus drivers.

Customer service training includes a basic overview in the Orientation Module for all employees and a comprehensive training session for those listed above.

4.1.12 Employees in Contact with Persons with Disabilities

Employees in this category include those directly engaged in activities assisting persons with disabilities or those who may come into contact with persons with disabilities. These employees include but are not limited to the following:

a. Employees assisting persons utilizing wheelchairs or escorting persons with disabilities

b. Employees assisting passengers, including those directly engaged in passenger check-in activities, baggage check-in and handling services, gate assistance and loading, food and beverage service, retail service, car rental, airport parking, and shuttle bus drivers

4.1.13 Regulatory Compliance

Compliance monitoring for the MCIA Training Standards Program is governed by AO 139 (see Chapter B/Div 139.B.3/139.170) and the MCIA Aerodrome Manual.

The requirements of the MCIA Training Standards Program are subject to change upon notice to the Employers/Employees.

4.1.14 Record Keeping, Reporting and Auditing

Employers must submit training records (Attachment F) to provide evidence their employees, contractors and vendors are in compliance with training requirements. The Training records are subject to audit by the Safety Management System Unit (SMSU). Training records must include the employee's name, job function, date the employee began working at the Mactan-Cebu International Airport (MCIA), and the date of each training class required by the MCIA Training Standards Program (See Attachment F).

Each employer must submit at least by June 30 of each year a statement certifying that it is in compliance with the MCIA Training Standards Program. (MCIA Training Standards Certification Form)

4.1.15 Measurements of Program Value

Each year the employer will be asked to include a statement of the success of the MCIA Training Standards Program, as measured through improvements in productivity, safety, and customer service and employee turnover.

The MCIA Training Standards Program is developed in support of the Mactan-Cebu International Airport's Mission and Vision. (see MCIA Aerodrome Manual- Part 5 section 5.7-5.8)

Attachment A: Role Based Training – Training Requirements per Function

		Badge Requirements			Role Specific Training Modules				
	Orientation	Security Badge	Basic Security	Customer Service Overview	Authority to Drive Airside	Ramp Area Safety	Vehicle Inspection	Customer Service	AMA Awareness
Gate/Ticket Agents	x	x		x				x	
Ground Handling Services	x	x		x	x	x		x	x
Baggage Handlers	x	x		x					
Concessionaires	x	x		x				x	
Security Guards	x	x	x				x	x	
Aircraft Interior Cleaning	x	x				x			
General Aircraft Maintenance	x	x			x	x			
Aircraft Mechanics	x	x			x	x			
Aircraft Fueling	x	x			x	x			
Water/Lavatory Servicing	x	x			x	x			
Aircraft Catering Services	x	x			x	x			
Cargo Carriers	x	x			x	x			
Car Rental Agencies	x	x		x				x	
Parking Lot Attendant	x	x		x			x	x	
Facility Maintenance	x	x			x	x			x
Fixed Base Operators	x	x			x	x			

Legend : x typically

Attachment B: Security Badge Definitions, Training Requirements

Badge Type	Ramp	Gen Av	Sterile	
Location	**Airside**	**General Aviation**	**Terminal Landside Terminal Airside**	**Landside**
Area Definition	Consists of areas designated for aircraft parking and maneuvering, enplaning/deplaning of passengers, and loading of cargo	Consists of ramp areas designated for fixed base operations (FBO), general aviation. Access is limited to these areas only.	Terminal Landside – transition point between the Landside and the Airside areas which includes carrier ticket counters, baggage claim, rental car counters, restrooms, applicable concessions, and security screening. Terminal Airside – transition point between landside and airside which includes retail food concessions, restrooms, passenger waiting areas, and aircraft gate access.	Consists of roadways, parking lots, rental car facilities and curbside.
Employees	Includes airlines and cargo personnel, ground support, and fixed base operations (when applicable). Access maybe limited for cargo employees.	Includes employees of Fixed Base Operators (FBO) and General Aviation tenants.	Includes employees working within the terminal beyond the check point.	May include car rental employees, hotel and tour operator representatives and porters. Access is limited to public areas only.
Training Requirement	1. AMA Awareness 2. Basic Security Awareness 3. Service Overview	1. Basic Security Awareness 2. Customer Service	1. Sterile Area Rules and Regulations 2. Basic Security Awareness 3. Customer Service	1. Basic Security Awareness 2. Customer Service
Additional Endorsement	1. Authority to Drive Airside (ADA) 2. Movement Area Driving	1. Authority to Drive Airside (ADA)		
Airport Security Guards	1. Vehicle Inspection 2. Basic Security Awareness			

Attachment C-1 : MCIAA General Training Modules Required for everyone

Module	Orientation	Basic Security Awareness	Service Overview
Topic 1	Introduction:	Area Definitions: Describes security areas: Landside, Terminal and Airside	Importance of Customer Service : Identifies reasons providing excellent customer service
Topic 2	Airlines, Destinations, Car Rentals; Business activity at MCIA	Access Control: Requirements for individuals and vehicles on ramp.	Attitude: Details importance of maintaining a positive attitude while serving customers.
Topic 3	MCIA Facilities: Runways, Terminals, Businesses	Security Agencies: Identifies the key players in airport security including the OTS and local law enforcement.	Consistency: Details importance of offering consistent service.
Topic 4	Working at an Airport: Different than any other organization	Security Measures: Basic vigilance measures to ensure security, reporting unattended bags and suspicious individuals.	Teamwork: Stresses the importance of teamwork to enhance the customer's perception of work group.
Topic 5	Customer Service: Representing MCIA, importance of good service, characteristics, measurement	Reporting Procedure: Procedures to report security issues to local law enforcement	Problem Solving: Encourages employees to be proactive in problem solving
Topic 6	ADA Awareness: Assisting persons with disabilities, mobility devices, hard of hearing/deaf, speech impediments, blind, developmental disabilities	Recognizing Security Issues: Ensure integrity of access control system, importance of monitoring doors and gates for security breach.	
Topic 7	Security Awareness: Unique environment, your responsibilities		
Topic 8	Safety: Basic principles, prevention and vigilance		
Topic 9	Airport Emergency Devices: What are they, where are they, who can use the defibrillators		
Topic 10	Evacuation Plan: Overview of process and rules, possible emergency situations		
Topic 11	MCIAA Mission and Vision		

Attachment C-2: Training – MCIA Airport ID System Modules

Module	AMA Training	Non – Movement Area Training	Sterile Area Training
Topic 1	Security Team Members: Describes the key players involved in airport security	Non-Movement Area Rules: Describes basic rules associated with the Non-movement area badge.	Security Definitions : Identifies definitions applicable to sterile area security and acronyms
Topic 2	Security Areas: Defines the different security areas located within the airport.	Security Areas: Defines the different security areas located within the airport	Security Areas: Defines the different security areas located within the airport
Topic 3	General AMA Rules: Describes in brief detail rules associated with an AMA badge	Escort Procedures: Details the requirements necessary to escort inside the Non-Movement Area.	General Security Rules: Describes requirements for receiving a sterile area badge
Topic 4	Individual/Group Access: Describes the difference between single and group access and associated rules	Administrative Cites: Describes security violations and associated monetary penalties	Responsibilities: Identifies responsibilities of sterile badge holders to challenge individuals unauthorized to be in sterile areas, including summoning of law enforcement
Topic 5	Vehicle media and Access: Describes type of vehicle media required to drive within AMA and associated procedures for entering the AMA with vehicle, including escort of other vehicles	Transient Aircraft Operations: Identifies which areas transient aircraft may park at when at the airport	Challenge Procedures: Describes the responsibility of sterile badge holders to challenge individuals unauthorized to be in sterile areas, including summoning law enforcement
Topic 6	Escort Procedures: Details the requirements necessary to escort an individual, who does not possess a badge, inside the AMA		Escorting Procedures: Identifies restrictions on escorting non-badged individuals inside sterile areas
Topic 7	Challenge Procedures: When and how to challenge individuals within AMA and procedures for summoning law enforcement personnel		Airport Security Program: Discusses the program in place to ensure airport security by employees working at the airport
Topic 8	Administrative Cites: Discusses the penalties associated with violations of the security rules and regulations		

Attachment C-3: Training – Role Specific Mandatory (Additional Endorsements to Badge for Certain Jobs)

Module	Authority To Drive Airside (ADA)	Movement Area Driving	Physical Vehicle Inspection
Topic 1	Air Operations Area (AOA): Defines areas within the AOA as either a movement or non-movement	Minimum Requirements: Discusses the minimum requirements to drive on the movement area	Safety Zone: Defines purpose and parameters associated with safety zones by airport terminal
Topic 2	Marking and Lighting: Describes types of marking and lighting used to help drivers navigate on the AOA	Obstacle free Zone: Describes OFZ and importance of keeping vehicles out of this area	Explosive Detection: Identifies methods of detecting potential explosives devices in vehicles
Topic 3	Perimeter Access Roads: Discusses when these roads may by used and by whom	Definition of Movement Area: Defines the location and purpose of the movement area	Reporting: Identifies measures to be taken in the event that a potential explosive device is found
Topic 4	Tug Use: Stipulates restrictions on tug use including the amount of carts a tug may pull and the number of individuals who may ride on a tug	Escorting Procedures: Identifies procedures for escorting vehicles and drivers which do not possess movement area privileges	Inspections: Provides basic instructions necessary to visually inspect a vehicle for explosive devices
Topic 5	Driving Safety Procedures: Discusses key elements in operating safely while on the AOA. Includes airport signage, key elements when operating in the close vicinity of aircraft, and driving at night	Safety Measures: Details basic safety measures to be taken to ensure safety when driving on the movement area including monitoring for aircraft and emergency vehicles	
Topic 6	Aircraft Refueling/HAZMAT Spills: Conveys basic procedures for refueling aircraft and steps to take when responding to HAZMAT spills	Runways and Taxiways: Details characteristics associated with runways and taxiways including lighting, markings and signage	
Topic 7	Lavatory Waste Operations: Describes basic procedures and safety measures for servicing aircraft lavatories, which includes proper response to lavatory (HAZMAT)	Tower Communications: Describes procedures when communicating with the air traffic control tower including procedures to follow during a radio communication failure	
Topic 8	Ramp Safety Program: Discusses the program in place to ensure ramp safety by employees working at the airport		

Attachment C-4: Training – Role Specific Customer Service, Disabilities, Ramp Area Safety

Module	Customer Service	Disability Awareness	Ramp Area Safety
Topic 1	You are an ambassador	Objective: Sensitivity training to best assist guests with disabilities	Definitions: Individuals, equipment and areas in the ramp and service areas
Topic 2	Creating Customer Service Excellence	General Practices: Etiquette, assistance and terminology	License and Permit Requirements: Training and employer responsibility
Topic 3	How customers are different at MCIA and how to help them	Disability Law	Authority to Drive Airside (ADA): Requirements for driving in restricted areas
Topic 4	Greeting Customers	Mobility Disabilities: Assisting individuals utilizing wheelchairs	Airport Citation Procedures: Responsibilities of enforcement
Topic 5	Giving directions, providing assistance	Individuals who are deaf: Methods and etiquette	Aircraft Gate Arrival/Push Back Procedures: Right of way and ground handling
Topic 6	Thank you and proper send off	Individuals with speech difficulties: Assistance	General Operating Rules: Restricted areas, proper vehicle
Topic 7	Calming down upset customers	Blind or low vision: Human guide, communications	Aircraft Fuel Servicing Rules: Maintenance and safety rules
Topic 8	Retail and Food Service	Developmental Disability: Providing assistance, respect	Fuel Spill Safety Procedures: Handling fuel spills
Topic 9	How MCIA measures good customer service	Quiz and Summary	Lavatory/Waste Material: Collection and Disposal Procedures

Attachment C-4: Training – Role Specific Customer Service, Disabilities, Ramp Area Safety

Module	Customer Service	Disability Awareness	Ramp Area Safety
Topic 1	You are an ambassador	Objective: Sensitivity training to best assist guests with disabilities	Definitions: Individuals, equipment and areas in the ramp and service areas
Topic 2	Creating Customer Service Excellence	General Practices: Etiquette, assistance and terminology	License and Permit Requirements: Training and employer responsibility
Topic 3	How customers are different at MCIA and how to help them	Disability Law	Authority to Drive Airside (ADA): Requirements for driving in restricted areas
Topic 4	Greeting Customers	Mobility Disabilities: Assisting individuals utilizing wheelchairs	Airport Citation Procedures: Responsibilities of enforcement
Topic 5	Giving directions, providing assistance	Individuals who are deaf: Methods and etiquette	Aircraft Gate Arrival/Push Back Procedures: Right of way and ground handling
Topic 6	Thank you and proper send off	Individuals with speech difficulties: Assistance	General Operating Rules: Restricted areas, proper vehicle
Topic 7	Calming down upset customers	Blind or low vision: Human guide, communications	Aircraft Fuel Servicing Rules: Maintenance and safety rules
Topic 8	Retail and Food Service	Developmental Disability: Providing assistance, respect	Fuel Spill Safety Procedures: Handling fuel spills
Topic 9	How MCIA measures good customer service	Quiz and Summary	Lavatory/Waste Material: Collection and Disposal Procedures

Attachment D: MCIA Annual In-house Training Program

Name of Training	Operations	Security	RFFS	Engineering	Administration/ Medical Services	Airlines/Ground Handlers
Back to Basics – Airport Self Inspection	x	x	x	x		
Airside Safety and Security Awareness	x	x	x	x		x
Airside Safety Driving	x	x	x	x		x
Basic Occupational and Health Training	x			x	x	
Wildlife Assessment and Management Training	x	x		x		
Full Scale Emergency Exercise	x	x	x	x	x	x
Runway Incursion Seminar	x	x	x	x	x	x
Basic Life Support Seminar	x		x	x	x	
Security Refresher Course		x				
Defensive Driving Course	x	x	x	x		x
Fire Drill	x	x	x	x	x	x
Marksmanship Training		x				
Intel/Investigation Training		x				

Attachment E: MCIA Annual Training Program by Invitation (ICAO, COSCAP, APEC, CAAP, IATA, IFALPA, ACI sponsored programs)

a. Aviation Security Related Trainings and Seminars

b. Aerodrome Safety Management System

c. Airport Operations (Ramp, Cargo and Terminal Operations)

d. Rescue and Fire Fighting Services Related Trainings and Seminars

e. Engineering Accredited Seminar

Attachment F: Training Records

It is a requirement of the program that each covered employer maintain training records to cover the period of time each employee is working at MCIA. It is preferable the records be maintained in a spreadsheet, but not required, they may be kept in your usual format (individual records, database, log, spreadsheet, etc.) and must be available for audit.

The records shall include the following data:

(a) Employee Name
(b) Role/Function
(c) Employee's Date of Hire
(d) Employee's First Date at MCIA
(e) Employee's Last Date at MCIA
(f) Date Badge Issued
(g) Type of Badge
(h) Date of Orientation Training
(i) Specific Modules: Date of training for each module
(j) Specific Modules: Signature of Trainer

Name of Company: _____

Employee Name	Date Start at MCIA	Last Date at MCIA	Role/ Function	Date Badge Issued	Type of Badge	Date of MCIA Orientation	Date of Customer Service	Date of ADA	Signature of Employee	Trainer/ Verification

Attachment G: Training Exemption Process

All Restricted Area Badge required training is mandatory.

Airport Stakeholders may request that their internal company training be accepted in lieu of the following two Role Specific training modules:

a. Customer Service – Working at Mactan-Cebu International Airport

b. Assisting Persons with Disabilities – Providing Exemplary Service

Exemption Process:

a. Review Airport Training Standards module and compare to your internal training to ensure all training topics are amply covered.

b. Fill out Training Exemption Request Form and submit to:

Safety Management System Unit
Mactan-Cebu International Airport Authority
3rd Level, Viewing Deck
Lapu-lapu City

c. Attach a copy of your training program materials or the course description and outline of topics covered in the relevant company training to be substituted in place of the training module.

d. The Airport will notify the company if the exemption for the training module has been granted or if follow up information is needed.

e. If request is denied, may appeal to Manager, Airport Operations Department.

f. The Covered Employer must secure any such approval from the Airport in advance of the time period the training covers.

4.1.16 RECURRENT TRAINING

4.1.10.1 The Safety Officer is responsible to ensure all staff to receive relevant recurrent training. This training shall consist of:

a. The Safety Management System
b. Compiling and submitting Hazard Reports, and reporting incidents and accidents
c. The responsibilities of all employees to participate in the Safety Management System
d. When new technology or equipment is introduced, or changes made to aerodrome operations (with an impact on safety), training will be provided.

4.1.10.2 In addition to formal training, the Safety Officer will keep staff informed and educate about current safety issues through providing relevant, safety related literature, sending them to safety related courses and seminars, thereby improving the safety health of the company.

4.1.17 TRAINING EVALUATION

4.1.11.1 The Safety Manager shall evaluate the effectiveness of the company training programs by the use of training feedback sheets that are designed to measure:

a. How well staff understand the operation of the Safety Management System;
b. How well staff are aware of the role they play in the Safety Management System; and
c. How much do staffs understand that the aim of the Safety Management System is to improve safety, and not to attribute blame.

4.1.11.2 Actual application of the effectiveness of the training result is easily observed and evaluated by the supervisors and managers in the knowledge and practices used in the workplace, and in any specific competencies that are required in the disposition of a certain work or field of assignment of the employee.

4.1.11.3 The Safety Manager shall monitor training records for any required personnel who have not attended induction or ongoing safety training, and invite them to the next relevant course.

SECTION 4.2 SAFETY COMMUNICATION

Safety communication is an important enabler for improved safety performance. Safety lesson dissemination is a vital element of safety communication because lessons learned from past experiences

implemented within the organization reduce the chances of accident and incident recurrence and thus improve safety.

4.2.1 **Dissemination of Safety Information**

The Aerodrome Safety Manager – Safety Management System Unit is the focal point for safety related information, hazard reports, risk assessments, safety analysis, investigation reports, audit reports, minutes of meeting, conference proceedings, and others. From all this information, the most relevant safety messages for dissemination will be identified. Messages will be classified as urgent (before the next flight), directive, for background understanding, or seasonal. Most staff does not have enough time to read all this information, and the salient points will be incorporated into easily understood safety messages. Several considerations would dictate the message classification and dissemination for example:

a. criticality of the information

b. the target audience

c. best means for disseminating the information (e.g. briefings, directed letters, newsletters, organizations intranet, videos and posters)

d. timing strategy to minimize the impact of the message (ex. Rainy season briefings generate little interest during summer

e. contents (e.g. how much background information should be given versus the core message)

f. wording (e.g. most appropriate vocabulary, style and tone)

4.2.2 **Safety Critical Information**

Urgent safety information are disseminated using such means :

a. direct message (oral or written) to responsible managers

b. direct briefings (e.g. for controllers in a specific unit)

c. shift change over briefings

d. direct mail (posts, facsimile or e-mail)

4.2.3 **Nice – to – know Information**

This material includes accident/incident reports, safety studies, aviation journals, proceedings of conferences and symposia, manufacturers reports, training videos, etc. Increasingly, this information is available electronically. Regardless of the format of the information, it will be made available to staff and management through.

a. an internal circulation system for critical/important information

b. a safety library

c. summaries notifying staff of the receipt of each information
d. directed distribution to selected managers

4.2.4 **Reporting to Management**

All reports to the management should conform to the points below unless unavoidable.

a. what is the problem?

b. how could I affect the organization?

c. how likely is it to happen?

d. what is the cost if it does happen?

e. how can the hazard be eliminated?

f. how can the risk be reduced?

g. how much will it cost to fix?

h. what are the downsides of such action?

4.2.5 **Objectives of Safety Promotions**

a. An ongoing program of safety promotion will ensure that employees benefit from safety lessons learned and continue to understand the organizations SMS. Safety promotion is link closely with safety training and the dissemination of safety information. It refers to those activities which the organization carries out in order to ensure that the staff understand why safety management procedures are being introduced, what safety management means, why particular safety actions are being taken, etc. Safety promotion provides the mechanism through which lessons learned from safety occurrence investigation and other related activities are made available to all affected personnel. It also provide a means of encouraging the development of a positive safety culture and ensuring that, once established, the safety culture will remain.

b. It is important that personnels see evidence of the commitment of management to safety. The attitudes and actions of management must be a significant factor in the promotion of safe work practices and the development of a positive safety culture.

c. Safety promotion plays an important role for the safety awareness, and it is the channel by which safety issues are communicated within the organization. These issues will be addressed through staff training programs or less formal mechanisms.

d. In order to propose solutions to identified hazards, personnel must be aware of the hazards identifications that have already been implemented. The safety promotion activities and training program address the rationale behind the introduction of new procedures. With the lessons learned, consideration would be given to wider dissemination of the information.

4.2.6 **Promotion Methods**

a. If a safety message is to be learned and retained, the recipient has to be positively motivated.

b. Safety topic would be selected for promotional campaigns based on their potential to prevent and reduce losses. Selection would therefore be based on the experience of past accidents or near misses, matter identifiedby hazard analysis and observations from routine safety audits. In addition, employees would be encouraged to submit suggestions for promotional campaigns.

c. The safety promotion program will be based on several modern communication methods

SECTION 5

EMERGENCY ACTION PLAN

SECTION 5 EMERGENCY ACTION PLAN

5.1 Emergency Action Plan

5.1.1 Introduction

The purpose of an Emergency Action Plan is to protect persons and management from serious injury, property loss, or loss of life, in the event of an actual or potential major disaster. A major disaster may include, but not limited to, any of the following: fire, tornado, earthquake, bomb threat, or hazardous chemical spill.

This Emergency Action Plan also assists personnel in making quality decisions during times of crisis. This plan describes the initial responsibilities and guidance in determining the appropriate actions to be taken to prevent injury and property loss from the occurrence of emergency incidents.

5.1.2 Emergency Alerting Procedures

In order to provide for the safety of employees and passenger, it is essential that early warning of emergency situations be made so that evacuation procedures can be implemented and emergency response organizations notified of the situation.

The facility uses incident reporting and notification either of the following:

a. Fire alarm pull station or activation of the fire protection system
b. Telephone call
c. Hand-held radios
d. Public address system

5.1.2.1 Notification for Small Area-Specific Incidents

Incidents such as individual medical emergencies will generally not require the notification of the entire facility.

5.1.2.1.1 Preferred means of notification

The telephone will be the preferred means of reporting such as emergencies. Reports of emergency situations will be reported to the Safety office. When available, the hand-held portable radios maybe used to make notification of an emergency situation.

5.1.2.1.2 Secondary means of notification

A runner will be sent to the Safety Office for a verbal notification of the situation.

5.1.2.2 **Notification of Serious or Facility wide Emergency Situation**

Facility wide emergency situations include incidents such as a fire or explosion, which require that all or the majority of the facility be notified.

5.1.2.2.1 **Preferred means of notification**

The preferred means of notification is the activation of the fire alarm pull station.

5.1.2.2.2 **Secondary means of notification**

The secondary means of notification is by telephone from an area not involved in the emergency situation or by hand-held portable radio if available.

5.1.3 **Emergency Contact List**

Name	Emergency Number
Crash Fire and Rescue	
Operations Center	
Medical Clinic	
Police Force Division	
Safety Manager/SMS Unit	

5.2 EVACUATION PROCEDURES

5.2.1 **General Procedure In The Event of Fire**

To evacuate the building upon seeing smoke/fire or hearing the fire alarm:

a. Verbally warn employees in the immediate area, (such as, yelling “FIRE!”) and activate alarm upon discovery of smoke or fire. The signal for a building wide evacuation will be the sound of the fire alarm. All employees are required to evacuate the building, unless otherwise assigned or authorized to remain by the emergency agency in charge.

b. If necessary for a safe, orderly evacuation, activate fire extinguishers or fire hose. At the discretion of the individual, use extinguisher if trained and assigned to do so.

c. Do not stop for the valuables.

d. Assist any special needs people in evacuating .

e. When evacuating WALK, never run.

f. Leave the building, even if the alarm stops while you are on your way out.

g. Use Stairways and not elevators.

h. Once outside, move away from the building to allow room for the firefighters and their equipment. Look for the others who work with you to insure everyone has evacuated.

i. Give any information about the fire or about persons who might still be in the building to your manager. The Fire Fighting Team, Emergency Response Team, or SMS Officers.

j. Do not re-enter the building for any reason until told to do so by any Emergency Response Team.

5.2.2 IF YOU CANNOT LEAVE BECAUSE ALL EXITS ARE OBSTRUCTED

Crawl or stay low to the floor where there is cleaner and cooler air. Get to a phone, dial to Emergency Services and let someone know where you are.

5.2.3 OF PARTICULAR IMPORTANCE

Do not run if your clothes catch fire. Running will only fan the fire, causing it to intensify. Drop to the floor and roll back and forth to smoother the flames. Call for help. Rescuers can smother the flames the flames by quickly wrapping a blanket, coat, sheet or rug over the victim. Leave the building.

5.3 EVACUATION ROUTE AND ASSEMBLY AREA

A map of evacuation routes will be displayed in hallways and departments. Each map will show the way to an exit, depending on where employees are located in the building. It will be the responsibility of the first-line supervisor to inform employees of these evacuation routes. The SMS Safety Manager shall verify that the signs are in place and up to date.

5.3.1 Designated Assembly areas:

a. Ramp
b. Departure Service Road
c. Arrival Service Road

5.3.2 Evacuation In The Event Of a Bomb Threat

Evacuation procedures are the same as fire evacuation procedures.

NOTE:
The handling of explosives is a job strictly for professionals. Should you notice something you suspect may be a bomb because it is an unusual item in an area you are very familiar with, do NOT touch it! Report it to the K-9 Security Group, Emergency Response personnel. Be prepared to describe the item and its location.

5.3.3 Evacuation In The Event Of an Explosion

In the event that an explosion occurs, use the Fire Evacuation Procedure.

5.3.4 Earthquake Emergency Procedures

An earthquake usually occurs without any type of warning. Due to the suddenness, all personnel should attempt to get under a table or desk, or any place that the employee feels is safe. After an earthquake has stopped, initiate the following procedure:

a. Stay calm and await instructions from the designated official.

b. Keep away from overturned fixtures, windows, filing cabinets, and electrical power.

c. Check for injuries and provide assistance as needed.

d. CFR Fire Safety Office should check for fires and shut off utilities to control leaks.

e. If major structural damage has occurred, the Emergency Operations Team should order a complete evacuation. The building should be inspected by Facilities Management for damage before reentry.

f. Facilities Management should then notify proper agencies, companies or departments as needed.

5.3.5 Elevator Entrapment Emergency Procedures

Occasionally, elevators will malfunction and stop which results in the entrapment of a person or persons. If you are advised of such a situation do the following:

a. Make verbal contact with the person or person in the elevator, and advise them that you are aware of their entrapment, and that campus police has been or will be notified immediately.

b. Notify key personnel using at contact list and report the location of the entrapment. Be sure to advise them of any other emergency information

(such as whether a person in the elevator reports being injured or ill, hurt leg, trouble breathing, dizzy, smoke in or near the elevator, etc.)

c. If possible, have someone remain with the people in the elevator until the Rescue Team arrives on the scene. Rescue Team will contact Mechanical Division to carry out extrication activities.

5.4 Medical Emergency Procedures

MCIAA Medical personnel or those individuals who are trained will provide first aid. Until Rescue Team personnel arrive, administer first aid in the building or, in the event of a complete evacuation, at a designated safe assembly area outside. All Medical Division personnel are trained in First Aid and CPR.

APPENDICES

Appendix 1

AIRPORT GROUNDS OPERATIONS DIVISION
Special Serviceability Inspection

TO : **Romeo D. Bersonda**
Manager, Airport Operations Department

Date : _____

FACILITIES	DAY	NIGHT	COMMENTS	RESOLVED BY (Date/Initials)
Water on Runway				
Damp				
Wet				
Water patches				
Flooded				
Debris on Runway				
Check for debris, mud and washouts on or at the edges of runway				
Runway and Taxiway Strips and Safety Areas				
Check storm water system to verify that inlets are not clogged and drainage channels are free of debris				
Ensure all drain covers are in place and flush with the surface				
Maintenance and Construction				
Conduct a special inspection before reopening a runway or taxiway following any construction or maintenance				
When an aircraft has left the pavement and entered a strip, check ruts or holes made during the recovery operation				
Check for construction and maintenance activities to ensure that no hazardous conditions created the likes of:				
Equipment and debris left in safety areas				
Unacceptable pavement edges created by ground alteration work				
Oil or hydraulic fluid spillage				
Ruts from mowing equipment or other vehicles				
After construction or maintenance, ensure that pavement markings are correct and unserviceable markers removed				

Legend: √ Satisfactory x Unsatisfactory

Day Inspector: _____ Time: _____
Night Inspector: _____ Time: _____

Noted by: **Eng'r. Manuel D. Lopez Sr.**
Manager, Airport Grounds Operations Division

Appendix 2

AIRPORT GROUNDS OPERATIONS DIVISION
Continuous Surveillance Inspection

TO : **Romeo D. Bersonda**
Manager, Airport Operations Department
Date : _____

FACILITIES	DAY	NIGHT	COMMENTS	RESOLVED BY (Date/Initials)
Ground Vehicle				
Determine if procedures and arrangements for the orderly operations of ground vehicles are being followed				
Report any deficiencies				
Construction				
Check for unauthorized use of runway, taxiways and apron by construction personnel and equipment				
Keep a sharp eye out for potential runway incursions and other irregularities				
Check all construction projects to ensure that the safety plan is being followed by the contractor				
Ensure that construction equipment is not operated in navigational aid critical areas				
Public Protection				
Be alert for unauthorized persons, vehicles and animals				
Ensure gates are secured, serviceable and clear for access by rescue and firefighting vehicles				
Bird and Animal Hazard				
Note any birds or animals on or adjacent to the runway, taxiways and apron				
Report any potential hazard created by birds on or adjacent to the aerodrome				
Potential Problems				
Control of pedestrian access to the movement areas				
Passenger loading and off-loading areas				
Debris on movement areas				

Legend:
✓ Satisfactory x Unsatisfactory

Day Inspector: _____ Time: _____
Night Inspector: _____ Time: _____

Noted by: **Eng'r. Manuel D. Lopez Sr.**
Manager, Airport Grounds Operations Division

Appendix 3

AIRPORT GROUNDS OPERATIONS DIVISION
BIRD-STRIKE REPORT FORM

To: Romeo D. Bersonda
Manager, Airport Operations Department

Date: _____ **Time**: _____

Aircraft Type: _____ **Aircraft Registry**: _____

Runway in use: _____ **Call Sign**: _____

Damage to Aircraft

Weather Conditions:
- ☐ Sunny
- ☐ Overcast
- ☐ Raining
- ☐ Fog

Bird Species (e.g. Egrets, vulture) _____
Not Known

Bird Concentration:
- ☐ Single
- ☐ Small Flock
- ☐ Large Flock

Number of Birds:
Seen _____
Struck _____

Size of Birds:
- ☐ Small
- ☐ Medium
- ☐ Large

Direction of Birds: _____
Altitude of Birds: _____

Action taken by the Operations Center:

_____
Name and Signature

Noted by:

Eng'r. Manuel D. Lopez Sr.
Manager, Airport Grounds Operations Division

Appendix 4

AIRPORT GROUNDS OPERATIONS DIVISION
RUNWAY INCURSION REPORT

TO: **Romeo D. Bersonda**
Manager, Airport Operations Department

Date: _____

Time: _____

Area compromised	
Type of incursion	☐ Aircraft ☐ Vehicle ☐ Pedestrian ☐ Animal
Agency informed	
Action taken	
Risk to Air Traffic	☐ No Risk ☐ Minimal ☐ Safety not assured
Description of incident	
Weather information	

Reported by: _____
Name and Signature

Noted by:

Eng'r. Manuel D. Lopez Sr.
Manager, Airport Grounds Operations Division

Appendix 5

AIRPORT GROUNDS OPERATIONS DIVISION
QUARTERLY INSPECTION – MOBILE FUELERS

Inspected by: _____ Fueling Agent: _____ Date: _____

S – Satisfactory U – Unsatisfactory R – Remark Below	Jet A Fuelers			100LL Fuelers			Other Fueler		
	S	U	R	S	U	R	S	U	R
No Smoking sign in cab									
Flammability Signs / Hazard Material Placards all sides									
Bonding Cables and Clips functional									
Deadman control for all nozzles									
2 Fire Extinguishers – Proper type / Inspected									
Emergency Shutoffs operable and marked									
No Fuel Leaks – Hoses / Gaskets / Valves									
Vehicle Exhaust System – Shielded / Leak Free									
No Evidence of Smoking – No ashtray in cab									
Vehicle parking – 10’ apart / 50’ from buildings									
Explosion proof electrical equipment / light lens intact									
Ignition sources (Clothing, Shoes, Matches)									
							No. of Mobile Fuelers		
Proper Fueling Procedures Observed							Jet A		
Fueling Personnel Meet Training Requirements							100LL		
Fueling Personnel Training Records Maintained							Other		
Remarks:									

Noted by:

Eng’r. Manuel D. Lopez Sr.
Manager, Airport Grounds Operations Division

Appendix 6

AIRPORT GROUNDS OPERATIONS DIVISION
QUARTERLY INSPECTION – FUEL STORAGE AREAS

Inspected by: _____ Fueling Agent: _____ Date: _____

S – Satisfactory U – Unsatisfactory R – Remark Below	Jet A Fuelers			100LL Fuelers			Other Fueler		
	S	U	R	S	U	R	S	U	R
Fencing / Locks / Signs									
Piping protected from vehicles									
No Smoking signs posted									
Deadman Controls for loading stations									
2 Fire Extinguishers – Inspected / Accessible									
Boldly Marked Emergency Cutoffs – Location									
No Fuel Leaks									
Bonding wire / clips at loading stations operable									
Piping / pumps bonded and grounded									
No vegetation or materials to spread fire									
No evidence of smoking									
Hoses in good condition									
Explosion proof electrical equipment									
Remarks:									

Noted by:

Eng'r. Manuel D. Lopez Sr.
Manager, Airport Grounds Operations Division

Appendix 7

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

AIRFIELD GROUND LIGHTING SYSTEM
DAILY INSPECTION REPORT

Date: _____

Description of Lightings	No. of Lights (Existing)	No. of Lights (Operational)	No. of Lights (Busted)	Remarks
Runway Edge Lights	98			
Runway Edge Inset Lights	10			
Runway Centerline Lights	109			
Runway End Lights 04	8			
Runway End lights 22	8			
PAPI Lights 04	16			
PAPI Lights 22	16			
Threshold Lights 04	20			
Threshold Lights 22	20			
Threshold Elevated Lights 22	10			
Approach Elevated Lights 04	46			
Approach Inset Lights 04	5			
Approach Elevated Lights 22	146			
Approach Inset Lights 22	20			
Rapid Exit Edge Lights (Echo)	43			
Rapid Exit Edge Lights (Hotel)	43			
Rapid Exit Centerline Light (Echo)	79			
Rapid Exit Centerline Lights (Hotel)	70			
Taxiway edge Lights (Bravo)	122			
Taxiway Edge Lights (Charlie)	37			
Taxiway Edge Lights (Delta)	59			
Taxiway Edge Lights (Foxtrot)	17			
Taxiway Edge Lights (Golf)	38			
Taxiway Edge Lights (Juliet)	35			
Taxiway Edge Light (Kilo)	35			
Taxiway Edge Lights (Lima)	35			
Aerodrome beacon Lights	4			
Runway Guard Lights	4			
Wind Indicator Lights	24			
Obstruction Lights	12			
Runway / Taxiway Guidance Signages	50			

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Foreman

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 8

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

AIRFIELD LIGHTING SYSTEM
INSULATION RESISTANCE TEST

Date of Testing: _____
Instrument Used: _____
Rating: _____
Minimum Insulation Resistance Allowable: 5.0 Mega Ohms

Load Description	Insulation Resistance (Mega Ohms)	Remarks
Approach Lights 04 – Circuit No. 1		
Approach Lights 22 – Circuit No. 2		
Approach Lights 22 – Circuit No. 3		
Runway Edge Lights – Circuit No.1		
Runway Edge Lights - Circuit No. 2		
PAPI Lights – Circuit No, 1 – 3		
PAPI Lights – Circuit No. 2 - 4		
Threshold Lights – Circuit No. 1 – 3		
Threshold Lights – Circuit No. 2 - 4		
Taxiway Edge Lights (Bravo 4 – Kilo)		
Taxiway Edge Lights (Bravo 2 – Foxtrot)		
Taxiway Edge Lights (Bravo 3)		
Taxiway Guidance Signs - Circuit No. 1		
Taxiway Edge Lights (Juliet – Lima)		
Taxiway Edge Lights (Golf)		
Taxiway Edge Lights (Bravo 1 – Charlie)		
Runway Centerline Lights – Circuit No. 1		
Runway Centerline Lights – Circuit No. 2		
Runway Centerline Lights (Echo)		
Taxiway Centerline Lights (Hotel)		
Taxiway Edge Lights (Delta – Echo)		
Taxiway Edge Lights (Hotel)		

Prepared by:

Eng'r. Rodelito R. Muana, REE
Supervising Engineer

Eng'r. Robert A. Juablar, REE
Sr. Engineer A

Submitted by:

Eng'r. Camilo C. Castro, PEE
OIC, Electrical Division

Noted by:

Eng'r. Achilles S. Ponce, PEE
OIC, Engineering Department

Appendix 9

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

DAILY MAINTENANCE CHECKLIST

Date: _____
Time: _____
Weather: _____

APPROACH, RUNWAY, PAPI, THRESHOLD AND TAXIWAY LIGHTING SYSTEMS

DESCRIPTION	ACTIVITIES	REMARKS
Approach Lights 22 (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Approach Lights 04 (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Precision Approach Path Indicator (PAPI) Lights	• Inspection, system check for burnt-out lamps • Replacing burnt-out lamps	
Runway Edge Lights (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights - Bravo (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights - Charlie (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights - Delta (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights - Echo (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights - Foxtrot	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights – Golf (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	

Appendix 9 (continuation)

APPROACH, RUNWAY, PAPI, THRESHOLD AND TAXIWAY LIGHTING SYSTEMS

DESCRIPTION	ACTIVITIES	REMARKS
Taxiway Edge Lights – Hotel (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights – Juliet (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights – Kilo (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Taxiway Edge Lights – Lima (Elevated)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	
Threshold Elevated Lights 22 (Wingbar)	• Inspection, system check for burnt-out lamps and breakage • Replacing burnt-out lamps • Replacing broken parts	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 10

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

TWICE WEEKLY / UNSCHEDULED MAINTENANCE CHECKLIST

Date: _____
Time: _____
Weather: _____

APPROACH, RUNWAY AND TAXIWAY, ELEVATED AND INSET LIGHTS, CENTERLINE LIGHTS AND AIRPORT NAVIGATIONAL AIDS

DESCRIPTION	ACTIVITIES	REMARKS
Approach Elevated Lights	• Checking / Cleaning of outer lens and reflectors • Checking of secondary cables and plug connections • Checking of elevation setting, alignment and focus	
Approach Inset Lights	• Overhaul, cleaning and repair • Checking of secondary cable connections and sockets • Replacing burnt-out lamps	
Runway Edge Elevated Lights	• Checking / cleaning of outer lens • Checking of secondary cable connections and sockets • Checking of elevation setting, alignment and focus	
Runway Edge Inset Lights	• Overhaul, cleaning and repair • Checking of secondary cable connections • Replacing burnt-out lamps	
Runway Centerline Lights	• Overhaul, cleaning and repair • Checking of secondary cable and plug connections • Replacing burnt-out lamps	
Threshold Inset Lights and Runway End Lights	• Overhaul, cleaning and repair • Checking of secondary cable sockets • Replacing burnt-out lamps	
Taxiway Edge Elevated Lights	• Checking of elevation alignment and focus • Replacing broken fixtures • Checking of secondary connections and sockets	

Appendix 10 (continuation)

DESCRIPTION	ACTIVITIES	REMARKS
Taxiway Edge Inset Lights	• Overhaul, cleaning and repair • Checking of secondary cable connections • Replacing burnt-out lamps	
Taxiway Centerline Lights	• Overhaul, cleaning and repair • Checking of secondary cable and plug connections • Replacing burnt-out lamps	
Taxiway Guidance Signs	• Replacing burnt-out lamps • Replacing defective parts • Removing obstructions	
Holding Position Lights	• Replacing burnt-out lamps • Cleaning of outer lens and reflectors • Removing Obstructions	
Wind Direction Indicators	• Replacing burnt-out lamps • Checking of lamp socket and connections	
Aerodrome Beacon Lights	• Replacing burnt-out lamps • Checking of power supply and connections	
Apron Flood Lighting and Obstacle Lights	• Replacing burnt-out lamps • Checking of control boxes and connections	
Airfield Security Lightings	• Replacing burnt-out lamps • Checking of switches and controls	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 11

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

SEMI-ANNUAL MAINTENANCE CHECKLIST

Date: _____
Time: _____
Weather: _____

APPROACH, RUNWAY AND TAXIWAY, ELEVATED AND INSET LIGHTS, CENTERLINE LIGHTS AND AIRPORT NAVIGATIONAL AIDS

DESCRIPTION	ACTIVITIES	REMARKS
Approach Elevated Lights	• Cleaning and replacing rusted parts • Checking of primary cables and connections • Checking / replacing of defective isolating transformers and plug connectors	
Approach Inset Lights	• Checking primary cables and connections • Checking / replacing of defective isolating transformers and plug connectors	
Threshold Wingbar Elevated Lights	• Checking / removing obstacle of tall grasses • Cleaning / replacing rusted parts • Checking / replacing defective isolating transformers and plug connectors	
Runway Threshold Inset Lights and End Lights	• Checking primary cables and connections • Checking / replacing defective isolating transformers and plug connectors	
Runway Edge Elevated and Inset Lights	• Cleaning / replacing rusted parts • Checking primary cables and connections • Checking / replacing defective isolating transformers and plug connectors	
Runway Centerline Lights	• Cleaning / replacing prisms and filters • Checking / replacing defective isolating transformers and plug connectors • Checking primary cables and connections • Resealing and tightening	
Taxiway Edge Elevated and Inset Lights	• Cleaning / replacing rusted parts • Checking primary cables and connections • Checking / replacing defective isolating transformers and plug connectors	
Taxiway Centerline Lights	• Checking / replacing prisms and filters • Checking / replacing defective isolating transformers and plug connectors • Checking primary cables and connections • Resealing and tightening	
Precision Approach Path Indicator (PAPI) Lights	• Servicing / cleaning of lenses and reflectors • Checking / removing obstacles of tall grasses • Checking / replacing defective isolating transformers and plug connectors • Checking of elevation setting (vertical angle) and adjustment	

Appendix 11 (continuation)

DESCRIPTION	ACTIVITIES	REMARKS
Runway Guard Lights	• Servicing / cleaning of lenses and reflectors • Checking power supply and transformers	
Taxiway guidance Signs	• Checking primary and secondary cables • Replacing defective parts • Cleaning / painting of structures • Removing obstacle of tall grasses	
Wind Direction Indicator	• Checking power supply and lightings • Replacing wind cone fabric	
Aerodrome Beacon Light	• Cleaning lens and reflectors • Checking electrical connections • Checking rotating parts and motor	
Apron Flood lightings and Obstruction Lights	• Checking power supply and lightings • Cleaning / checking controls and ballast boxes	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 12

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

MONTHLY / UNSCHEDULED INSPECTION

Date: _____
Time: _____
Weather: _____

REGULATORS AND CONTROL FACILITIES

DESCRIPTION	ACTIVITIES	REMARKS
Constant Current Regulator – 25kw **Approach Lighrs 04 CKT 1**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 25kw **Approach Lights 22 CKT 2** **Approach Lights 22 CKT 3**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 15kw **Runway Edge Lights CKT 1** **Runway Edge Lights CKT 2**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 10kw **Runway Centerline Lights CKT 1** **Runway Centerline Lights CKT 2**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 10kw **Taxiway Guidance Signs CKT 1** **Taxiway Guidance Signs CKT 2**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 7.5kw **Threshold Lights CKT 1** **Threshold Lights CKT 2**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw **PAPI Lights CKT 1** **PAPI Lights CKT 2**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 7.5kw **Taxiway Edge Lights Bravo/Charlie**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 7.5kw **Taxiway Edge Lights Delta / Echo**	• Serviceability check • Lights intensity check • Repair / replacing defective parts	

Appendix 12 (continuation)

DESCRIPTION	ACTIVITIES	REMARKS
Constant Current Regulator – 7.5kw Rapid Exit Centerline Lights Echo	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 7.5kw Taxiway Edge Lights Bravo / Kilo	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 7.5kw Rapid Exit Centerline Lights Hotel	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Bravo/Foxtrot	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Golf	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Juliet / Lima	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Bravo 3	• Serviceability check • Lights intensity check • Repair / replacing defective parts	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Hotel	• Serviceability check • Lights intensity check • Repair / replacing defective parts	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 13

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

SEMI-ANNUAL INSPECTION

Date: _____
Time: _____
Weather: _____

REGULATORS AND CONTROL FACILITIES

DESCRIPTION	ACTIVITIES	REMARKS
Constant Current Regulator – 25kw **Approach Lights 04 CKT 1**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 25kw **Approach Lights 22 CKT 2** **Approach Lights 22 CKT 3**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 15kw **Runway Edge Lights CKT 1** **Runway Edge Lights CKT 2**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 10kw **Runway Centerline Lights CKT 1** **Runway Centerline Lights CKT 2**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 10kw **Taxiway Guidance Signs CKT 1** **Taxiway Guidance Signs CKT 2**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 7.5kw **Threshold Lights CKT 1** **Threshold Lights CKT 2**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw **PAPI Lights CKT 1** **PAPI Lights CKT 2**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 7.5kw **Taxiway Edge Lights Bravo/Charlie**	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 7.5kw **Taxiway Edge Lights Delta / Echo**	• Servicing / cleaning • Checking power supply / connections • Checking output current	

Appendix 13 (continuation)

DESCRIPTION	ACTIVITIES	REMARKS
Constant Current Regulator – 7.5kw Rapid Exit Centerline Lights Echo	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 7.5kw Taxiway Edge Lights Bravo / Kilo	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 7.5kw Rapid Exit Centerline Lights Hotel	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Bravo/Foxtrot	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Golf	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Juliet / Lima	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Bravo 3	• Servicing / cleaning • Checking power supply / connections • Checking output current	
Constant Current Regulator – 4.0kw Taxiway Edge Lights Hotel	• Servicing / cleaning • Checking power supply / connections • Checking output current	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 14

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

SEMI-ANNUAL / UNSCHEDULED INSPECTION

Date: _____
Time: _____
Weather: _____

POWER CABLES AND FIELD DISTRIBUTIONS

DESCRIPTION	ACTIVITIES	REMARKS
Approach Lights 04 **Circuit No. 1**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Approach Lights 22 **Circuit No.2** **Circuit No.3**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Runway Edge Lights **Circuit No. 1** **Circuit No. 2**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Runway Centerline Lights **Circuit No. 1** **Circuit No. 2**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
PAPI Lights **Circuit No. 1** **Circuit No. 2**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Threshold Lights **Circuit No. 1** **Circuit No. 2**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights **Bravo - Kilo**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights **Juliet - Lima**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights **Bravo 2**	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	

Appendix 14 (continuation)

DESCRIPTION	ACTIVITIES	REMARKS
Taxiway Edge Lights Bravo 3	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights Golf	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights Hotel	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights Delta - Echo	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Edge Lights Bravo - Charlie	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Centerline Lights Echo	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Centerline Lights Hotel	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	
Taxiway Guidance Signage Circuit No. 1 Circuit No. 2	• Cleaning, tightening and spraying of electrical connectors in manholes • Insulation Resistance Test	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 15

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

MONTHLY / UNSCHEDULED INSPECTION

Date: _____
Time: _____
Weather: _____

PRIMARY POWER SUPPLY AND SECONDARY POWER SUPPLY (GENERATOR)

DESCRIPTION	ACTIVITIES	REMARKS
Transformer Station **3-167 KVA, 60 HZ** **13,800 Volts Primary** **230 Volts Secondary**	• Checking and cleaning of station surroundings • Checking, cleaning or replacing of the warning and safety signs	
Standby Generator Set **KVA – 438 Phase – 3** **KW – 350.4 P.F. _ 0.8** **Volts – 230 AMPS _ 1,149** **RPM – 1800** **Continuous Rating**	• Test run and recording of meter reading • Servicing and cleaning • Engine oil check • Fuel level check • Battery water level check • Switch – over time from primary to secondary power supply for conformation to the requirement	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 16

MCIAA ELECTRICAL DIVISION
AIRFIELD LIGHTING SECTION

MONTHLY / UNSCHEDULED INSPECTION

Date: _____
Time: _____
Weather: _____

PANEL BOARD AND SWITCHES

DESCRIPTION	ACTIVITIES	REMARKS
Automatic Transfer Switch (ATS) **AMP – 1,250 A** **Volts – 250 VAC** **Phase 3**	• Servicing and cleaning • Check wiring connections • Tightening for possible loose connections • Switch – over to standby unit	
Main Distribution Panel (MDP) **AMP – 1,200 A** **Volts – 240 VAC** **Phase 3**	• Servicing and cleaning • Check wiring connections of branches • Tightening for possible loose connections	
Emergency Main Distribution Panel 1 (EMDP 1) **AMP – 600 A** **Volts – 240 VAC** **Phase 3**	• Servicing and cleaning • Check wiring connections of branches • Tightening for possible loose connections	
Emergency Main Distribution Panel 2 (EMDP 2) **AMP – 225 A** **Volts – 240 VAC** **Phase 3**	• Servicing and cleaning • Check wiring connections of branches • Tightening for possible loose connections	
Marshalling Panel	• Servicing and cleaning • Check wiring connections of branches • Check PLC and relays	
Selection Panel PAPI Lights	• Servicing and cleaning • Check wiring connections of branches • Tightening for possible loose connections	
Selection Panel Threshold Lights	• Servicing and cleaning • Check wiring connections of branches • Tightening for possible loose connections	

Inspected by:

_____
Name and Signature

Confirmed by:

_____
Shift Supervisor / Section Head

Noted by:

Eng'r. Camilo C. Castro
OIC, Electrical Engineering Division

Appendix 17

ACCIDENT INVESTIGATION REPORT

Report No. _____

Name of Company: _____
Address: _____
Date: _____

1. Name of Injured: _____ I.D. # _____

2. Sex: ( ) M ( ) F Age: _____ Date of Accident: _____

3. Time of Accident: _____ Day of Accident: _____

4. Employee's Job Title: _____

5. Length of experience on job: _____ years _____ months

6. Address or location where the accident occurred: _____

7. Nature of injury, injury type, and part of the body affected: _____

8. Describe the accident and how it occurred: _____

9. Cause of the accident: _____

10. Was personal protective equipment required? ( ) Yes ( ) No

    Was it being used? ( ) Yes ( ) No . If "NO", explain.
    _____
    _____

    Was it being used as trained by supervisor or designated trainer? ( ) Yes ( ) No
    If "NO", explain.
    _____
    _____

11. Witnesses: _____ _____

12. Safety training provided to the injured? ( ) Yes ( ) No . If "NO", explain.
    _____
    _____

13. Interim corrective actions taken to prevent recurrence:
    _____

14. Permanent corrective action recommended to prevent recurrence:
    _____

15. Status and follow-up action taken by safety coordinator:
    _____

Prepared by:

_____
Name and Signature

Noted by:

Eng'r. Manuel D. Lopez Sr.
Manager, Airport Grounds Operations Division

Appendix 17 (continuation)

Instructions for Completing the Accident Investigation Report

An accident investigation is not designed to find fault or place blame but it is an analysis of the accident to determine causes that can be controlled or eliminated.

(Item 1 – 6) Identification: This section is self-explanatory

(Item 7) Nature of Injury: Describe the injury, e.g. strain, sprain, cut, burn, fracture

Injury Type:

First Aid: Injury resulted in minor injury / treated on premises
Medical: Injury treated off premises by physician
Lost Time: Injured missed more than one day of work
No Injury: No injury, near miss type of accident
Part of the body: part of the body directly affected, e.g., foot, arm, hand, head

(Item 8) Describe the accident: Describe the accident, including exactly what happened, and where and how it happened. Describe the equipment or materials involved.

(Item 9) Cause of the accident: describe all conditions or acts which contributed to the accident, i.e.:

(a) Unsafe condition: spills, grease on the floor, poor housekeeping or other physical conditions;

(b) Unsafe acts: unsafe work practices such as failure to warn, failure to use required personal protective equipment.

(Item 10) Personal protective equipment: Self-explanatory

(Item 11) Witnesses: List names, address and phone numbers

(Item 12) Safety training provided: Was any safety training provided to the injured related to the work activity being performed?

(Item 13) Interim corrective action: Measures taken by supervisor to prevent recurrence of incident, i.e., barricading accident area, posting warning signs, shutting down operations

(Item 14) Self-explanatory

(Item 15) Follow-up: Once the investigation is complete, the safety coordinator shall review and follow-up the investigation to ensure that corrective actions recommended by the safety committee and approved by the employer are taken, and control measures have been implemented.

Appendix 18

Republic of the Philippines
Department of Transportation and Communication
MACTAN-CEBU INTERNATIONAL AIRPORT AUTHORITY
Lapu-Lapu City

CIVIL WORKS DIVISION – ENGINEERING DEPARTMENT
INSPECTION CHECKLIST OF AIRPORT CIVIL ENGINEERING FACILITIES

PATROL INSPECTION

Place subject to inspection	Inspection Item	Inspection Frequency	Inspection Date/ Inspector	Findings		Comments & Recommendations	Remarks
				YES	NO		
Runway	Damage of pavement	Twice/month					
	Existence of trash, etc. on pavement surface	Twice/month					
	Condition of marks	Twice/month					
	Accumulation of adhesive rubber	Twice/month					
Taxiway	Damage of pavement	Twice/month					
	Existence of trash, etc. on pavement surface	Twice/month					
	Condition of marks	Twice/month					
Apron	Damage of pavement	Once/month					
	Existence of trash, etc. on pavement surface	Once/month					
	Condition of marks	Once/month					
	Oil stains of pavement surface	Once/month					
Landing Zone	Condition of plants and trees	Twice/year					
	Condition of drainage facilities	Twice/year					
	Condition of rainwater drainage	Twice/year					
Road Parking Space	Damage of pavement	Once/month					
	Existence of trash, etc. on pavement surface	Once/month					
	Condition of marks	Once/month					
	Condition of rainwater drainage	Once/month					
	Condition of plants and trees	Once/month					
Others	Condition of a fence around airport	Once/year					
	Condition of plants and trees	Four times/yr					
	Condition of bank protection	Four times/yr					
	Condition of breast walls	Four times/yr					

Inspected by:

IGNACIO B. TAGHAP, JR.
Supervising Engineer – B

DENNIS A. BONDOC
Principal Engineer - D

Noted:

EDUARDO G. GINETE
OIC, Civil Works Division

Cc: gm, agm, sms-sso, eng'g dept., records, file

Appendix 19

CIVIL WORKS DIVISION – ENGINEERING DEPARTMENT
INSPECTION CHECKLIST OF AIRPORT CIVIL ENGINEERING FACILITIES

PERIODICAL INSPECTION

Place subject to inspection	Inspection Item	Inspection Frequency	Inspection Date/ Inspector	Findings		Comments & Recommendations	Remarks
				YES	NO		
Runway	Longitudinal and traverse pitch	Once/three yrs.					
	Sliding resistance when wet	Four times/yr					
	Surface roughness	Four times/yr					
	Pavement unit strength	Once/three yrs					
	Crack	Once/three yrs					
	Rutting	Once/three yrs					
	Evenness	Once/three yrs					
Taxiway	Longitudinal and traverse pitch	Once/three yrs					
	Pavement unit strength	Once/three yrs					
	Crack	Once/three yrs					
	Rutting	Once/three yrs					
Apron	Evenness	Once/three yrs					
	Pavement unit strength	Once/three yrs					
	Crack	Once/three yrs					
Landing Zone	Faulting	Once/three yrs					
Road Parking Space	Traverse pitch	Once/three yrs					
	Height of						

Inspected by:

IGNACIO B. TAGHAP, JR.
Supervising Engineer – B

DENNIS A. BONDOC
Principal Engineer - D

Noted:

EDUARDO GINETE
OIC, Civil Works Division

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ANNEX 5:

SAFETY MANAGEMENT SYSTEM MANUAL OF GMR-MEGAWIDE CEBU AIRPORT CORPORATION

MACTAN-CEBU INTERNATIONAL AIRPORT

GMR MEGAWIDE- CEBU AIRPORT CORPORATION

Conforming to

R.A.9497, Civil Aviation Act of 2007
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
&
Doc.9859 AN/474 Safety Management Manual (SMM), Third Edition – 2013

INTERNATIONAL CIVIL AVIATION ORGANIZATION

SAFETY MANAGEMENT SYSTEM MANUAL

MAKTAN CEBU INTERNATIONAL AIRPORT

GMR MEGAWIDE CEBU AIRPORT CORPORATION

Lapu-Lapu City

Tel: TBA FAX: TBA

E-mail: safety.gmcac@gmcac.ph

Version: 1.0
Issue Date: 18 July, 2014
Effective Date: 1 November, 2014

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TABLE OF CONTENTS

II. AMENDMENTS:

Amendment & Corrigenda Number	Affected part/ content	Page number	Name & Signature	Date

III. REVISON HISTORY:

This Safety Management System Manual has been revised as indicated by the change listed in the following table.

Version	Date	Part/Section	Details

IV. INTRODUCTION

This is the Safety Management System (SMS) Manual for Mactan-Cebu International Airport operated by GMR MEGAWIDE CEBU AIRPORT CORPORATION (GMCAC) as per requirement of the Republic Act No.9497, The Civil Aviation Authority of the Philippines, the act dated 23rd July, 2007 and the Safety Management Manual (SMM), Third Edition – 2013 of International Civil Aviation Organization. This manual applies to all personnel employed by, or contracted to by GMCAC in any capacity (full time, part time or casual). All personnel shall abide by the procedures contained in this manual besides their own SMS or SOP at their respective domains.

A functioning Safety Management System became a mandatory requirement for certified Aerodromes since 24 November 2005. The essence of the SMS in this document is a *hazard reporting process and a process for the risk assessment and treatment of the hazards identified by staff, or through investigation and analysis of incidents or accidents.*

Sections of the manual provide the context within which the SMS can function at this airport. This context is composed of elements as per ICAO Doc 9859 AN/474 Safety Management Manual (SMM), third Edition – 2013 with 4 components and 12 elements.

The Mactan –Cebu International Airport safety management system is an integrated set of work practices, beliefs and procedures for monitoring and improving the safety and wellbeing of all aspects of the organization. It recognizes the potential for errors and establishes robust defenses to ensure that errors do not result in incidents or accidents. It will incorporate the underlying principles of Quality Management and Risk Management with Safety Management principles and practices. These concepts build on and reinforce each other.

As with all management systems, Mactan-Cebu International Airport SMS involves goal setting, planning, documentation, and the measuring of performance against goals. This safety management system is a comprehensive integrated tool for managing safety in apron/Passengers' Terminal Building /Landside operations. It sets out:

- The safety objectives;

- The systems and procedures by which these are to be achieved;
- The performance standards which are to be met; and
- The means by which adherence to these standards is to be maintained.

Written directions and instructions are made clear and concise, and readily available to everyone who may need them.

V. DOCUMENT AMENDMENT PROCEDURES:

CAAP regulation applies to procedures for amending an SMS Manual. The philosophy and process applicable to SMS Manuals, including amendment requirements, are applied equally to this manual unless or until specific instructions are provided for SMS Manuals.

VI. AMENDMENT AWARENESS RECORDS:

All personnel associated with any aspect of the airport Safety Management System must sign the Amendment Awareness Record as evidence of having read, understood and agreed to apply the procedures and data contained in the SMS Manual.

All personnel who are required to sign must do so, on initial issue of the manual, and additionally whenever an amendment has been made. It is the Airport Manual Controller's responsibility to ensure that each amendment is brought to the attention of all relevant persons.

REFERENCES:

a) ICAO Doc.9859 AN/474 Safety Management Manual, Third Edition – 2013.

b) ICAO Document 9774 Manual on Certification of Aerodromes.

c) Annex 14 Aerodromes Volume 1 Fourth Edition, amendment 7.

d) AO 139

VIII. DEFINITION & ABBREVIATIONS

1. ***Acceptable level of safety performance (ALoSP).*** The minimum level of safety performance of civil aviation in a State, as defined in its State safety programme, or of a service provider, as defined in its safety management system, expressed in terms of safety performance targets and safety performance indicators.
2. ***Accountable executive.*** A single, identifiable person having responsibility for the effective and efficient performance of the State's SSP or of the service provider's SMS.
3. ***Change management.*** A formal process to manage changes within an organization in a systematic manner, so that changes which may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes.
4. ***Defences.*** Specific mitigating actions, preventive controls or recovery measures put in place to prevent the realization of a hazard or its escalation into an undesirable consequence.
5. ***Errors.*** An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.
6. ***High-consequence indicators.*** Safety performance indicators pertaining to the monitoring and measurement of high-consequence occurrences, such as accidents or serious incidents. High-consequence indicators are sometimes referred to as reactive indicators.
7. ***Lower-consequence indicators.*** Safety performance indicators pertaining to the monitoring and measurement of lower-consequence occurrences, events or activities such as incidents, non-conformance findings or deviations. Lower-consequence indicators are sometimes referred to as proactive/predictive indicators.
8. ***Risk mitigation.*** The process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.

9. ***Safety management system.*** A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.
10. ***Safety performance.*** A State's or service provider´s safety achievement as defined by its safety performance targets and safety performance indicators.
11. ***Safety performance indicator.*** A data-based safety parameter used for monitoring and assessing safety performance.
12. ***Safety risk.*** The predicted probability and severity of the consequences or outcomes of a hazard.
13. ***State safety Programme.*** An integrated set of regulations and activities aimed at improving safety.
14. **Audit :**Systematic, independent and documented process for obtaining "audit evidence" and evaluating it objectively to determine the extent to which "audit criteria" are fulfilled
15. **Consequence:** A consequence is defined as the potential outcome (or outcomes) of a hazard.
16. **Continual improvement:** Recurring process of enhancing the Safety Management System in order to achieve improvements in overall safety performance consistent with the DIAL's safety policy.
17. **Corrective action:** Action to eliminate the cause of a detected nonconformity or other undesirable situation.
18. **Document:** Information and its supporting medium.
19. **Hazard:** Source, situation, or act with a potential for harm in terms of human injury or damage to property, or a combination of these.
20. **Hazard identification:** Process of recognizing that a **hazard** exists and defining its characteristics.
21. **Ill Health:** Identifiable, adverse physical or mental condition arising from and/or made worse by a work activity and/or work-related situation.
22. **Incident:** Airside operations related event(s) in which an injury or fatality or damage (regardless of severity) could have occurred NOTE 1 An accident is an incident which has given rise

to injury, fatality or damage to aircraft. These are further categorized into following two categories:

23. Accidents involving aircrafts, in the maneuvering area and on aprons
24. Accidents involving vehicles, equipment and people other than aircraft, in the airside operation area
    a) NOTE 2: An incident may also be referred to as a "near-miss", "near-hit", "close call" or "dangerous occurrence".
    b) NOTE 3 An emergency situation is a particular type of incident.
25. N**onconformity:** Non-fulfilment of a requirement.
26. P**reventive action:** Action to eliminate the cause of a potential **nonconformity** or other undesirable potential situation.
    A. NOTE 1 There can be more than one cause for a potential nonconformity.
    B. NOTE 2 Preventive action is taken to prevent occurrence whereas **corrective action** is taken to prevent recurrence.
27. **Procedure:** Specified way to carry out an activity or a process.
28. **Record: Document** stating results achieved or providing evidence of activities performed.
29. **Risk:** Combination of the likelihood of an occurrence of a hazardous event or exposure(s)and the severity of injury or **damage** that can be caused by the event or exposure(s).
30. **Risk assessment:** Process of evaluating the **risk(s)** arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable.
31. **Safety policy:** Overall intentions and direction of an **organization** related to its safety initiatives.
32. **Acceptable level of safety (ALoS):** It is the minimum degree of safety that must be assured by a system in actual practice.
33. **Accountable Executive:** Accountable Executive is the single, identifiable person having final responsibility for the effective and efficient performance of the organization's SMS.

34. **Aerodrome:** A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
35. **Aerodrome licence:** A licence issued by the Director General of Civil Aviation under applicable regulations for the operation of an aerodrome.
36. **Aerodrome reference point (ARP):** The designated geographical location of an aerodrome.
37. **Declared distances:**
38. **Take-off run available (TORA):** The length of runway declared available and suitable for the ground run of an aeroplane taking off.
39. **Take-off distance available (TODA):** The length of the take-off run available plus the length of the clearway, if provided.
40. **Accelerate-stop distance available (ASDA):** The length of the take-off run available plus the length of the stop way, if provided.
41. **Landing distance available (LDA):** The length of runway, which is declared available and suitable for, the ground run of an aeroplane landing.
42. **Gap analysis:** A gap analysis is an analysis of the safety arrangements already existing within the organization as compared to those necessary for the SMS to function.
43. **Human Factors principles:** Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.
44. **Human performance:** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
45. I**nstrument runway:** One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

46. N**on-precision approach runway:** An instrument runway served by visual aids and a non-visual aid providing at least directional guidance adequate for a straight-in approach.
47. P**recision approach runway, category I:** An instrument runway served by ILS and/or MLS and visual aids intended for operations with a decision height not lower than 60 m (200 ft) and either a visibility not less than 800 m or a runway visual range not less than 550 m.
48. P**recision approach runway, category II:** An instrument runway served by ILS and/or MLS and visual aids intended for operations with a decision height lower than 60 m (200 ft) but not lower than 30 m (100 ft) and a runway visual range not less than 350 m.
49. P**recision approach runway, category III:** An instrument runway served by ILS and/or MLS to and along the surface of the runway and:
50. A — intended for operations with a decision height lower than 30 m (100 ft), or no decision height and a runway visual range not less than 200 m.
51. B — intended for operations with a decision height lower than 15 m (50 ft), or no decision height and a runway visual range less than 200m but not less than 50 m
52. C — intended for operations with no decision height and no runway visual range limitations.

53. **Licensed aerodrome:** An aerodrome whose operator has been granted an aerodrome licence.
54. **Maneuvering area:** That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.
55. M**ovement area:** That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the maneuvering area and the apron(s).
56. **Non-instrument runway:** A runway intended for the operation of aircraft using visual approach procedures.
57. **Runway:** A defined rectangular area on a land aerodrome prepared for the landing and takeoff of aircraft.

58. **Runway Incursion:** Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.
59. **Runway Visual Range (RVR):** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.
60. **Safety Programme:** An integrated set of regulations and activities aimed at improving safety.
61. **Safety management system:** It is a management tool for the management of safety by an organization, reflecting an organized and orderly approach.
62. **Service provider:** Service provider refers to any organization providing aviation services. The term includes approved training organizations that are exposed to operational safety risks during the provision of their services, aircraft operators, approved maintenance organizations, organizations responsible for type design and/or manufacture of aircraft, air traffic service providers and certified aerodromes, as applicable.
63. **Taxiway:** A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:
64. Aircraft stand taxi lane: A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
65. Apron taxiway: A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.
66. Rapid exit taxiway: A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times.
67. **Threshold:** The beginning of that portion of the runway usable for landing.

68. **Touchdown Zone:** The portion of runway, beyond the threshold, where it is intended first contact of aeroplanes on the runway.

ABBREVIATIONS

AD: Airworthiness directive

ADREP: Accident/incident data reporting (ICAO)

AIB: Accident investigation board

AIR: Airworthiness

ALoSP: Acceptable level of safety performance

AMAN: Abrupt maneuvering

AME: Aircraft maintenance engineer

AMO: Approved maintenance organization`

AMS: Aircraft maintenance schedule

ANS: Air navigation service

AOC: Air operator certificate

AOG: Aircraft on ground

ASB: Alert service bulletin

ATC: Air traffic control

ATM: Air traffic management

ATS: Air traffic service(s)

CAA: Civil aviation authority

CAN: Corrective action notice

CBA Cost-benefit analysis

CEA: Chief Executive Advisor

CEO: Chief executive officer

CFIT: Controlled flight into terrain

Cir: Circular

CM: Condition monitoring

CMA: Continuous monitoring approach

CMC: Crisis management centre

CNS: Communications, navigation and surveillance

CP: Command post

CRM: Crew resource management

CVR: Cockpit voice recorder

DGR: Dangerous goods regulation

D&M: Design and manufacturing

DMS: Document management system

DOA: Design organization approval

Doc: Document

EAD: Emergency airworthiness directive

EC: Escalation control

ECCAIRS: European Coordination Centre for Accident and Incident Reporting Systems

EDTO: Extended diversion time operation

EF: Escalation factor

EMC: Emergency management centre *(x) Safety Management Manual (SMM)*

EMS: Environmental management system

ERP: Emergency response plan

FDR: Flight data recorder

FH: Flying hours

FIR: Flight information region

FL: Flight level

FMS: Financial management system

FRMS: Fatigue risk management systems

FTL: Flight time limitation

FTM: Fleet technical management

GAQ: Gap analysis questionnaire

H: Hazard

HF: Human factors

HIRA: Hazard identification and risk assessment

HIRM: Hazard identification and risk mitigation

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IFSD: In-flight shutdown

ILS: Instrument landing system

IMC: Instrument meteorological conditions

ISO: International Organization for Standardization

iSTARS: Integrated Safety Trend and Reporting System

ITM: Inventory technical management

Kg: Kilogram(s)

LEI: Lack of effective implementation

LOC-I Loss of control in flight

LOFT Line-oriented flight training

LOS Loss of separation

LOSA Line operations safety audit

LRU Line replaceable unit

LSI Line station inspection

MCM Maintenance control manual

MDR Mandatory defect report

MEDA Maintenance error decision aid

MEL Minimum equipment list

MFF Mixed fleet flying

MOR Mandatory occurrence report

MPD Maintenance planning document

MRM Maintenance resource management

MRO Maintenance repair organization

MSL Mean sea level

N/A Not applicable

OEM Original equipment manufacturer

OPS Operations

ORP Organization risk profile

OSC Organization safety culture

OSHE Occupational safety, health and environment

OHSMS Occupational health and safety management system

PC Preventive control

PMI Principal Maintenance inspector

POA Production organization approval

POI Principal Operation's inspector

QA Quality assurance

QC Quality control

QM Quality management

QMS Quality management system

RAIO Regional accident and incident investigation organization

RM Recovery measure

RSOO Regional safety oversight organization

SA Safety assurance

SAG Safety action group

SARPs Standards and Recommended Practices (ICAO)

SB Service bulletin

SCF-NP System component failure — non-power plant

SD Standard deviation

SDCPS Safety data collection and processing system

SeMS Security management system

SHEL Software/hardware/environment/livewire

SM Safety management

SMM Safety management manual

SMP Safety Management Panel

SMS Safety management system(s)

SOPs Standard operating procedures

SPI Safety performance indicator

SQE Safety Quality Environment

SRB Safety review board

SRC Safety review committee

SRM Safety risk management

SSO Safety services office

SSP State safety programme

STDEVP Population standard deviation

TBD To be determined

TOPS Terminal Operations

TOR Terms of reference

UC Ultimate consequence

UE Unsafe event

UFIS Universal Flight Information System

USOAP Universal Safety Oversight Audit Programme (ICAO)

WIP Work in progress

Section-1

SAFETY POLICY AND OBJECTIVE

1.1

MANAGEMENT COMMINTMENT AND RESPONSIBILITY

1.1.01 SAFETY POLICY

1.1.02 SAFETY POLICY STATEMENT

Safety is one of GMCAC's core business functions. We are committed to developing, implementing, maintaining and constantly improving strategies and processes to ensure that all our aviation activities take place under an appropriate allocation of organizational resources, aimed at achieving the highest level of safety performance and meeting regulatory requirements, while delivering our services.

All levels of management and all employees are accountable for the delivery of this highest level of safety performance, starting with the President, Chief Executive Advisor and covering all level of organizations.

GMCAC's commitment is to:

- ***support*** the management of safety through the provision of all appropriate resources that will result in an organizational culture that fosters safe practices, encourages effective safety reporting and communication at Mactan Cebu International Airport and actively manages safety with the same attention to the results of the other management systems at this airport.
- ***ensure*** that the management of safety at MCIA is a primary responsibility of all managers and employees;
- *clearly define,* for all staff, managers and employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance and the performance of our safety management system (SMS);
- ***establish and operate*** hazard identification and risk management processes, including a hazard reporting system, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities, to achieve continuous improvement in our safety performance;

- ***ensure*** that no action will be taken against any employee who discloses a safety concern through the hazard reporting system, unless such disclosure indicates, beyond any reasonable doubt, gross negligence or a deliberate or wilful disregard of regulations or procedures;
- ***comply*** with and, wherever possible, exceed, legislative and regulatory requirements and standards;
- ***ensure*** that sufficient skilled and trained human resources are available to implement safety strategies and processes;
- ***ensure*** that all staff are provided with adequate and appropriate aviation safety information and training, are competent in safety matters, and are allocated only tasks commensurate with their skills;
- ***establish*** *and measure* our safety performance against realistic safety performance indicators and safety performance targets;
- ***Continually*** *improve* our safety performance through continuous monitoring and measurement, regular review and adjustment of safety objectives and targets, and diligent achievement of these; and
- ***ensure*** that externally supplied systems and services to support our operations are delivered meeting our safety performance standards.
- **support** other organizations to develop safety standards and Procedures (SOPs) in their domains to ensure safety at Mactan-Cebu International airport.

(Signed) _____

Andrew Harrison , Chief Executive Advisor,

GMR MEGAWIDE CEBU AIRPORT CORPORATION

MACTAN-CEBU INTERNATIONAL AIRPORT

1.1.03 SAFETY OBJECTIVES

The objectives of Safety Management System Manual are:

a. To provide a structured management system to eliminate or control risk in operations into an acceptable level.
b. To set up Safety Management System Unit to oversee the development and implementation of the Aerodrome Safety Management Unit and to ensure that the application of effective Safety Management System is integral to all our activities.
c. Develop and embed a safety culture in all our activities that recognize the importance and value of effective Safety Management and acknowledge at all times that safety is paramount.
d. Clearly define for all staff their accountabilities and responsibilities for the development and delivery of safety strategy and performance. Ensure that all staff is provided with adequate and appropriate safety information and training, are competent in safety matters and are only allocated tasks commensurate with their skills;
e. To ensure that all staff is provided with adequate and appropriate safety information
f. To provide the necessary training to build and maintain a meaningful Aerodrome operational safety leadership skills.
g. To ensure that the measurement of the organizational safety performance and safety targets are in place.

1.1.04 SENIOR MANAGEMENT COMMITMENT

Senior management team members are committed to the following:

a. Demonstrating commitment to safety and the Safety Management System;
b. Setting the safety standards and policies for the operation;
c. Encouraging participation in safety management by as many staff as possible;
d. Allocating sufficient resources to the Safety Management System; and
e. Facilitating the flow of safety information.
f. Ensuring that safety is never allowed to became subservient to financial and commercial interest.

1.1.05 GMCAC COMMITMENT

Within GMCAC, visible commitment by senior management is demonstrated by the following:

a. Appointment of SQE manager who delivers the responsibility of GMCAC Safety Manager.
b. Open communication about safety issues; and
c. Provision of adequate resources to address safety concerns.

The company provides the following:

a. Managers getting personally involved in safety activities;
b. Safety induction for all employees; and,
c. A commitment to safety that is evident in terms of finance, time, formal documentation and adequate qualified and experienced personnel.

1.2
SAFETY ACCOUNTABILITY

1.2.01 GENERAL ACCOUNTABILITY

In Aviation Safety, Responsibility and accountability are interlinked. While individual staff member is responsible for their actions, they are also accountable to their supervisor or manager for the safe performance of their functions and may be called on to justify their actions. Although individuals must be accountable for their own actions, managers and supervisors are accountable for the overall performance of the group that reports to them. Accountability is bilateral. Managers are also accountable for ensuring that their subordinates have the resources, training, experience, etc. needed for the safe completion of their assigned duties.

The senior management team members are committed to the following:

a. Demonstrating commitment to safety and the Safety Management System;
b. Setting the safety standards and policies for the operation;
c. Encouraging participation in safety management by as many staff as possible;
d. Allocating sufficient resources to the Safety Management System; and
e. Facilitating the flow of safety information

1.2.02 MANAGEMENT SAFETY COMMITMENT

A visible commitment and accountability of GMCAC Senior Management is demonstrated by the following:

a. The appointment of a safety officer/manager;
b. Open communication about safety issues; and
c. Provision of adequate resources to address safety concerns.

The company provides the following:

a. Managers getting personally involved in safety activities;
b. Safety induction for all employees; and,
c. A commitment to safety that is evident in terms of finance, time, formal documentation and adequate qualified and experienced personnel.

1.2.03 SAFETY MANAGER'S ACCOUNTABILITY

CEA, GMCAC appoints a permanent safety manager (SQE) or designate any competent officer with this responsibility for a period not exceeding one (1) year until a permanent safety officer is hired. The SQE Manager has the authority to make decisions and recommends budget cost to the CEA/GMCAC for approval of resources on safety matters as:

a. budget cost for each safety investigation/treatment
b. budget per annum
c. appointment of members or staff involved in investigation/treatment of hazards at any one time
d. other limits as stated by COO/CEA

The SQE Manager reports directly to the CEA.

The SQE Manager is responsible for:

a. The review and revision of the safety management program
b. Providing timely advice and assistance on safety matters to managers and staff at all levels
c. Maintaining an appropriate reporting system to identify hazards
d. Monitoring the progress of safety reports and ensuring that hazards are addressed in a timely manner
e. Maintaining a list of personnel who are qualified to participate in a safety investigation
f. Providing feedback about ongoing safety issues
g. Reporting incidents and accidents as required by legislation
h. Distributing relevant and up-to-date safety information to staff and management and
i. Identifying safety training requirements

The SQE Manager is also required to:

a. Comply with all procedures and practices relating to the prevention and control of hazards;
b. Comply with all emergency procedures as defined in the Aerodrome Manual
c. Report any matters of which he is aware to the COO/CEA that may affect the company's compliance with the provisions of current legislation

d. Take corrective action and, if necessary, interrupt operations if they believe that there is an imminent danger of a major accident
e. Notify the COO/CEA or raise the alarm, as appropriate, before or as soon as possible after, taking such action
f. Discuss with senior management any potential hazards that they consider are capable of generating a major accident

1.2.04 CHIEF EXECUTIVE ADVISOR

The Chief Executive Advisor is accountable for performance relating to:

I. Development of the strategic business planning process, i.e. mission, strategies, goals, and initiatives;
II. Planning of the annual business and operating process;
III. Safety Policy is defined and/or clarified;
IV. Establishment/approval of specific safety performance measurements by each operating division (part of the Risk Assessment);
V. Inclusion of safety responsibilities in each managers job description and performance review;
VI. Appointment of specific individuals responsible to achieve divisional/departmental safety initiatives (the Safety Officer/ Safety Manager);
VII. Providing an environment in which the Safety Manager is able to report safety concerns without fear or favor;
VIII. Sufficient resource reallocation or requirements for safety management;
IX. Ensuring that each location within an operational division develops, maintains and implements a written Safety Plan including the emergency procedures;
X. Ensuring procedures that address the contractor risk exposures as part of the risk assessment are established;
XI. Signing the safety policy for the organization;

XII. Settlement of disagreements which create an impasse among the department heads; and

XIII. Reviewing and Evaluating the Safety Management System at regular intervals

1.2.05 CHIEF OPERATING OFFICER

Chief Operating Officer (COO) is accountable for the effective implementation of Safety Management System at airport to ensure strict adherence of Standard Operating Procedures that encompasses all operations activities. He is responsible for safe coordination of all activities and safe use of equipment, facilities necessary to ensure smooth flow of arriving departing and arriving passengers in the entire Passengers terminal, city side and apron side. He will coordinate with ATC for safety related issues and be responsible for timely information for Aeronautical Information Publication pertaining to permanent changes and NOTAM for timely promulgation. He will advise CAAP of any significant changes that might occur at airport under the purview of GMCAC jurisdiction.

1.2.06 CHIEF COMMRCIAL OFFICER

Chief Commercial Officer (CCO) is accountable for the effective implementation of Safety procedures at all the commercial outlets at airport that come under his jurisdiction. He is responsible for strict adherence of safety compliances by all stakeholders, engaged by commercial department at airport. Besides this he will ensure that stakeholders set up any installation at operational areas subject to prior

approval of Safety Officer. He will provide necessary information to Safety Officer for effective implementation of Safety procedures at airport.

1.2.07 CHIEF FINANCIAL ADVISOR

Chief Financial Advisor is accountable for the release of all necessary resources and funds for the implementation of all safety related activities and programs. He will provide his observation and information to Safety Manager to strengthen the Safety Management System at airport.

1.2.08 CHIEF CORPORATE AFFAIR OFFICER

Chief Corporate Affair Officer (CCFOA) is accountable for providing safety related information to Safety Officer that ensures safety in his domain of working. He will share feedbacks received from other sources with Safety Officer which will strengthen the existing SMS system at airport.

1.2.09 Head – Engineering

Head- Engineering is accountable for the safe operations, management, maintenance and repair of all GMCAC facilities and equipment, installation and buildings. He will ensure inspections of all electrical installation and facilities to ensure uninterrupted services and use, and also undertake all other activities that are relevant to the operation, maintenance and upgrading of said installation facilities. He will be accountable for electrical, mechanical and civil maintenance and

repair work at airport. He will ensure that while such activities are undertaken, safety norms are adhered to strictly. He will also be accountable for adherence of Safety procedures by the outsourced agencies, contractors and stakeholders who have been engaged and controlled by him.

1.2.10 Head – HUMAN RESOURCE & MANAGEMENT

Head- Human Resource & Management is accountable for the approval of all the necessary human resource requirements for the creation of a robust Safety Management System at airport.

1.2.11 HEAD – LEGAL

Head- Legal is accountable to ensure that all the safety related compliances, ICAO directive and State Safety requirements have been followed at airport strictly. He will advise Safety Officer to take up different actions time to time to ensure such compliances and also while amendments occurs.

1.3
APPOINTMENT OF KEY SAFETY PERSONNEL

1.3.01 APPOINTMENT OF KEY PERSONNEL

Key to the effective implementation and functioning of a Safety Management is the appointment of the person in charge of its daily operations. GMCAC shall appoint a Safety Manager who is responsible for the implementation and maintenance of an effective SMS at Mactan-Cebu International Airport.

1.3.02 AIRPORT SAFETY MANAGER (SQE)

The SQE Manager shall be identified and recruited based on the following criteria:

a) safety/quality management experience;

b) Operational experience;

c) Technical background to understand the systems that support operations;

d) People skills;

e) Analytical and problem-solving skills;

f) Project management skills; and

g) Oral and written communications skills.

1.3.03 ACCOUNTABILITY AND RESPONSIBILITY OF SQE MANAGER

In GMCAC, the Safety Manager is the individual responsible for the development and maintenance of an effective SMS. The safety manager also advises the accountable Executives and line managers on safety management matters and is responsible for coordinating and communicating safety issues within the organization, as well as with external stakeholders. The safety manager's functions include, but are not necessarily limited to:

a) Managing the SMS implementation plan on behalf of the accountable executive;
b) Performing/facilitating hazard identification and safety risk analysis;
c) Monitoring corrective actions and evaluating their results;
d) Providing periodic reports on the organization's safety performance;
e) Maintaining records and safety documentation;
f) Planning and facilitating staff safety training;
g) Providing independent advice on safety matters;
h) Monitoring safety concerns in the aviation industry and their perceived impact on the organization's operations aimed at service delivery;

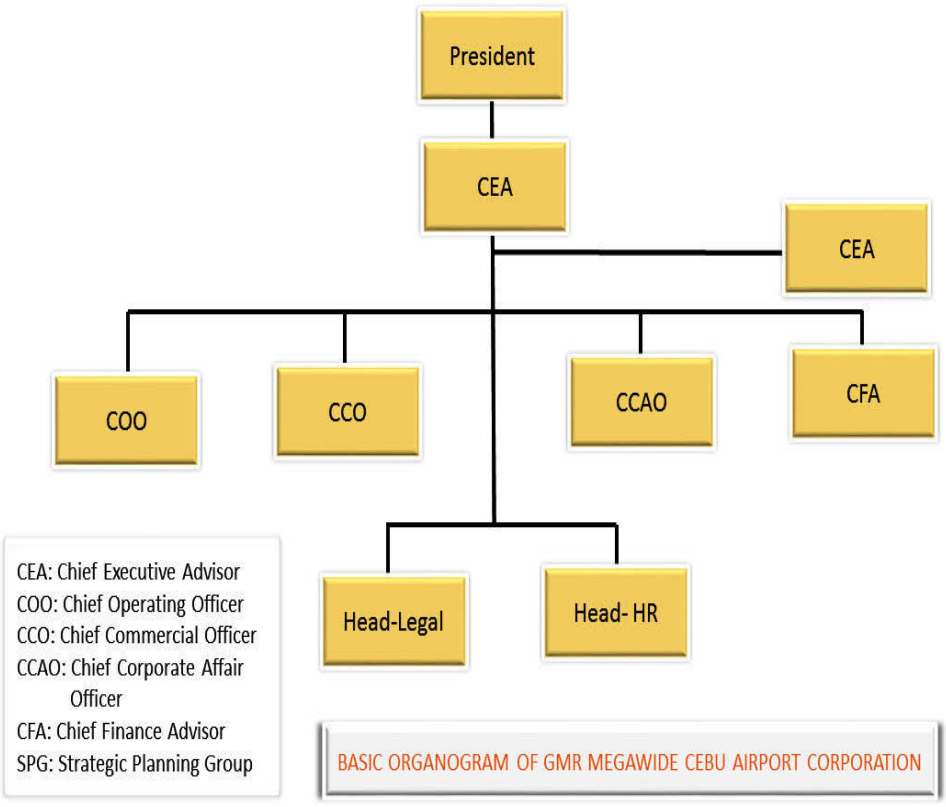
i) Coordinating and communicating (on behalf of the accountable executive) with the State's oversight authority and other State agencies as necessary on issues relating to safety; and

j) Coordinating and communicating (on behalf of the accountable executive) with international organizations on issues relating to safety.

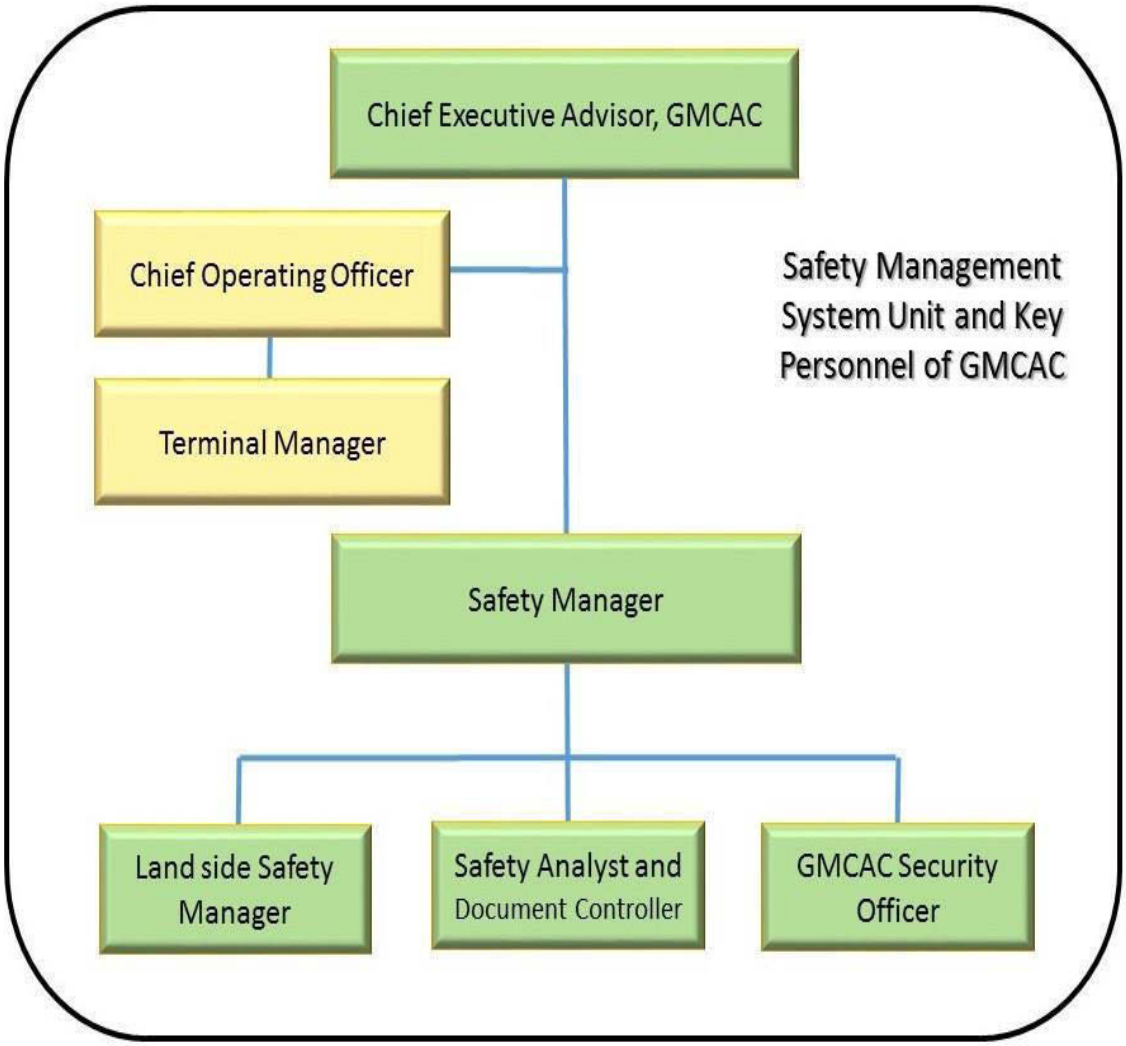
k) He will set up a formal process to assess the effectiveness and efficiency of any mitigation strategies to achieve the agreed safety performance targets of the organization. He will create a Safety Review Committee (SRC) to assess the effectiveness and efficiency of risk mitigation strategies.

l) Support MCIAA to develop safety procedures and standards in airside operations like – Special Serviceability Inspection at airside, Continuous Surveillance inspection, Bird strike reporting, Runway Incursion reporting, Inspection of Fueling services, Fuel Storage areas, Airport Ground Lighting Inspections, AGL Insulation Resistance test, Approach Lights, Runway lights, PAPI, Threshold and Taxiway lighting system and various maintenance activities related to these services.

1.3.04 GMCAC BASIC STRUCTURE



1.3.05 GMCAC SAFETY COMMITTEE AND KEY PERSONNEL



1.4
COORDINATION OF EMERGENCY RESPONSE PLANNING

1.4.01 COORDINATION OF EMERGENCY RESPONSE PLANNING

Refer to Mactan-Cebu International Airport Emergency Planning Manual (MAEP)

1.4.02 EMERGENCY PREPAREDNESS AND RESPONSE

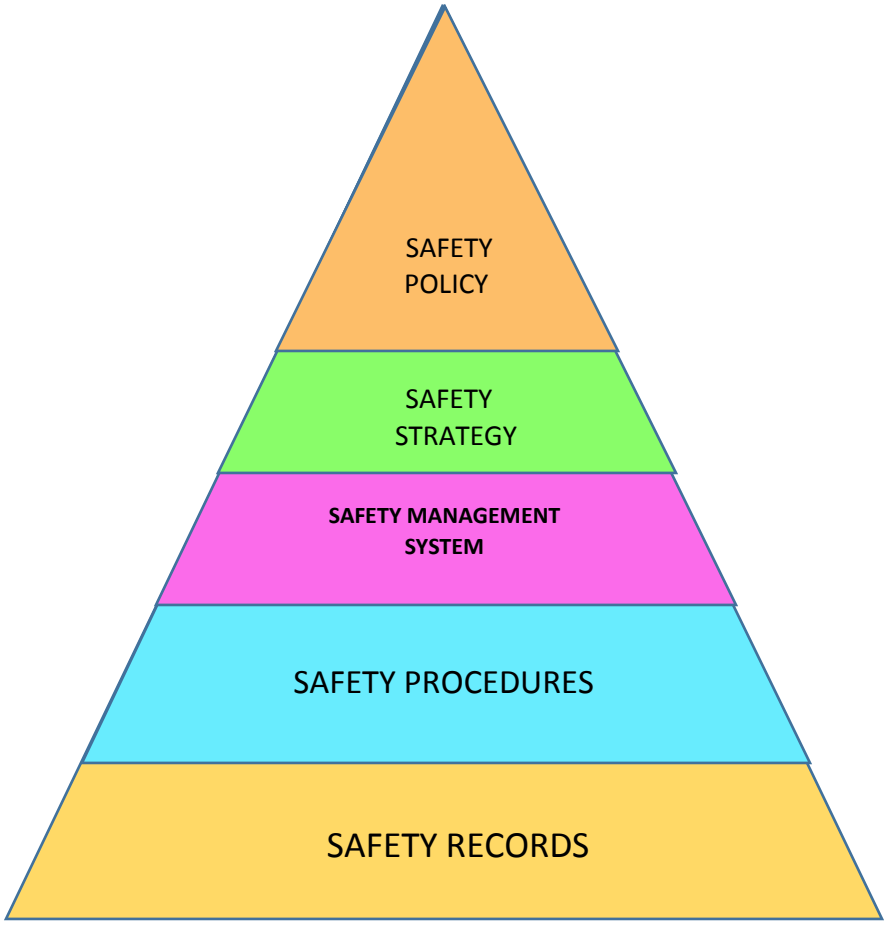
Emergency Preparedness and Responses Procedures are laid down properly in the Mactan-Cebu International Airport Emergency Planning Manual (MAEP)

1.5
SMS DOCUMENTATION

1.5.01 SAFETY DOCUMENTATION

Safety Documentation includes documentation of two categories of records:

1. SMS documentations
2. Safety records



1.5.02 PURPOSE

The purpose of the SMS documentation is to document the Safety Management System (SMS) of GMCAC and communicate it internally to the whole organization and externally to the stakeholders and to the regulator (MCIAA and CAAP) in order to establish a robust Safety Management System at MCIA. It enables the correct execution of safety procedures and thus the achievement of the organization's safety objectives.

1.5.03 SAFETY RECORDS

Safety records are maintained in order to provide documented safety assurance to all associated with, responsible for or dependent upon the services provided by GMCAC, and to the regulator. Safety records are needed to demonstrate that the SMS is operated according to the expectations.

1.5.04 SAFETY REPORTING SYSTEM

Any hazard which has the potential to cause damage or injury or which threatens business viability in GMCAC should be reported. Hazards, incidents or accidents are reported by staff, management, customers or passengers and external contractors. The forms may be paper or electronic. The report is considered and the need for a solution

will be decided in a timely manner. All information is accepted with the aim of fixing problems not punishing people.

All records produced shall be legible, identifiable, traceable to the activity, and where staff submits the information, it is recorded on the appropriate form.

Reported risks are those that have been identified and can be managed. Unreported hazards and risks are difficult to identify and to fix. The company supports and encourages the open reporting and communication of hazards, incidents and accidents by having:

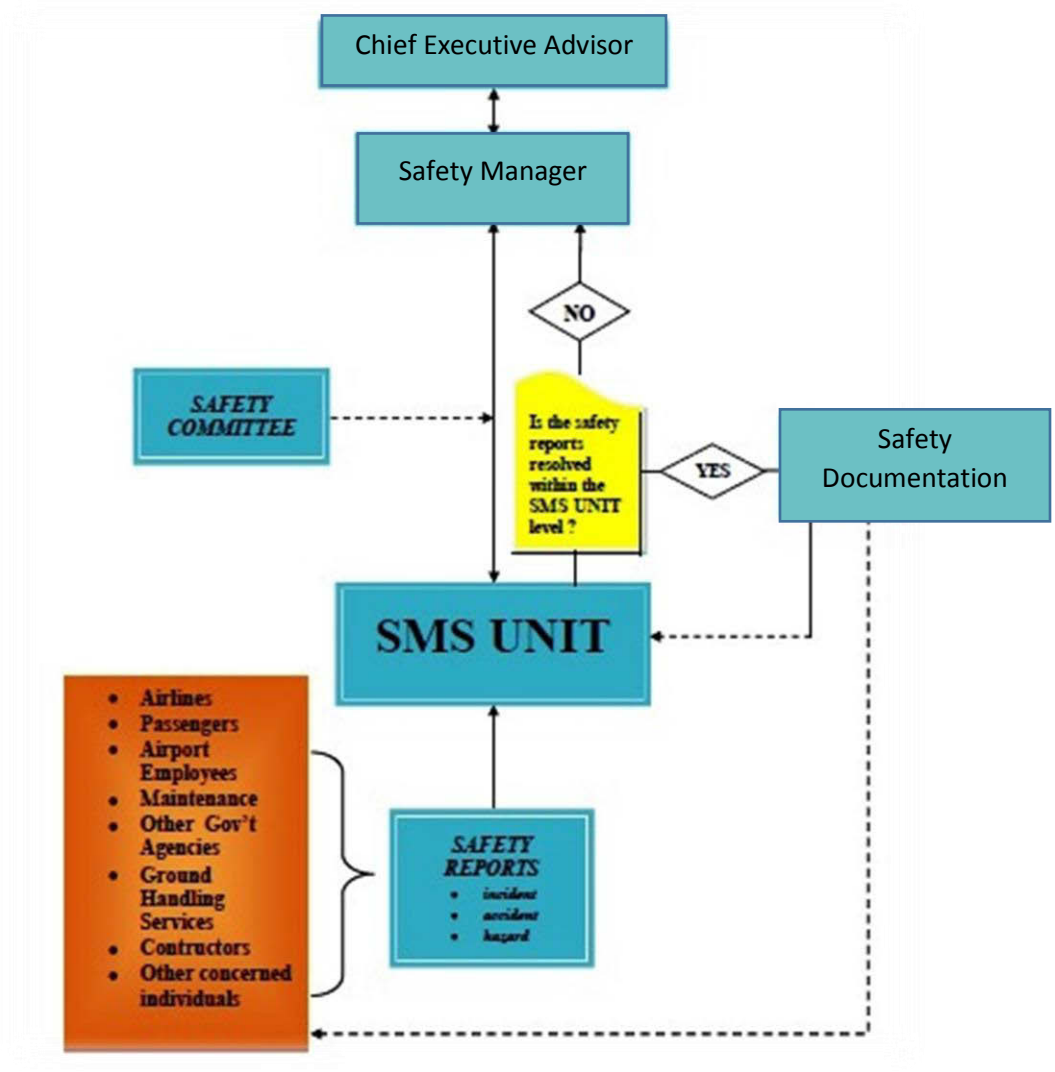
a. Non-punitive, confidential hazard reporting systems;
b. Formal and informal meetings to discuss safety concerns; and
c. Feedback from management about action taken as a result of hazard reports or safety meetings.

Both formal and informal processes are used to gather information from staff about hazards in our organization, including:

a. Hazard Report Forms
b. Safety Audits using Hazard Checklist
c. Confidential hazard reporting
d. Informal communication; and
e. Observations of work practices and work flow

Voluntary reporting of non-compliance is encouraged. GMCAC has a policy of not initiating disciplinary action against any employee who reports an incident affecting operational safety. However, blatant

disregard of safety standards and rules will incur disciplinary action. If a breach of legislation has occurred the CAAP may also take action.



Safety Reporting Flow Charts

1.5.05 REPORTING HAZARDS, INCIDENTS AND ACCIDENTS

HAZARDS: Any employee observing a hazardous situation that could affect safety is encouraged to report it to the GMCAC Safety Management System Unit or directly to the SQE Manager. The Safety Manager will provide hazard-reporting forms, which may be used, for this purpose. Anonymous reports will also be accepted.

INCIDENTS: Apart from aircraft incidents at GMCAC areas, other incidents other than an accident, associated with the operation of the aerodrome that results in injury or damage to vehicles, plant, people or equipment.

ACCIDENTS: Apart from aircraft accident, other accidental damages to vehicles, plant or equipment; death or serious injury to personnel or customers resulting from aerodrome operations; or damage to other property or injury to other personnel resulting from company operations qualify as accidents and must be immediately reported to the SQE Manager. The SQE Manager shall notify the relevant authorities, as required, and conduct investigations into the event.

1.5.06 MANDATORY REPORTING

At GMCAC, it is mandatory to report any incident involving an unsafe or potentially unsafe, occurrence or condition, irrespective of whether it involves injury or property damage or not. The report should be submitted to the Safety Management System Unit or directly to the

Safety Manager as soon as possible after the occurrence/incident but in any case not later than 24 hours after the incident. The accident/incident reports may be submitted in the desired format.

The person reporting, at his/her own discretion, may or may not disclose his/her identity. It is mandatory to report the following occurrences to GMCAC SQE Manager:

a. Failure of any facility and procedure used in airside operational area that belongs to GMCAC's jurisdiction; incorrect transmission, receipt or interception of radio telephone messages (ground to air, ground to ground) etc.
b. Operational area obstructed by foreign objects
c. Presence of any animals in the operational area and likely to affect safe operations
d. Major deterioration of services in aircraft maneuvering areas under GMCAC.
e. Collision between moving aircraft and vehicles or any other ground equipment at apron.
f. Collision between vehicles or vehicles and GSEs.
g. Fuel spillage.
h. Failure in the serviceability of barriers at GMCAC area
i. Failure of Fire-fighting apparatus and equipment capabilities at GMCAC areas.
j. Unsafe storage of construction equipment and materials
k. Unreported security breaches
l. Failure in the serviceability of security barriers

m. Failure to comply with GMCAC requirements on airport works standards.

n. Failure to conduct regular monitoring and inspection of GMCAC airside vegetation control

o. Deviation to existing airside security policies and regulations

p. Incorrect airside markings at GMCAC areas

q. Failure to provide safe storage for hazardous chemicals and materials

r. Absence of safety signage on operational areas in the terminal building and apron areas.

s. Lack of traffic signs, construction signs, warning signs, and caution signs in the airport GMCAC operational areas

t. Failure to perform immediate actions on reported hazard incidents.

1.5.07 SAFETY RECORDS MANAGEMENT

All safety reports are submitted to the Department concerned and the concerned HOD/ Manager will make appropriate actions/recommendations. The formal action report will be forwarded to the SMS Unit for review and finalization.

An official Daily Operations Report is prepared by Operations Center (AOCC) and is disseminated to the operational HODs and Managers with a copy furnished to SMS Unit. This report is a summary of all observations, reports, incidents and or accidents in relations to the GMCAC airside and landside operations and recorded at the airport AODB for purposes of recording.

1.5.08 SAFETY ACTIONS TAKEN

The SQE Management System Unit will review all the safety reports submitted according to its nature of concern. Reports concerning landside operations safety will be acted by the landside Manager and those reports concerning apron operations safety will be acted by the Apron Management Unit. Reports concerning security operations will be acted by the Security Manager. However, those reports which affect safety in the GMCAC airside operational activities and needs to be discussed with the safety committee will be acted by the SQE Manager. The SQE Manager calls for an Emergency meeting with the Safety Committee if deem necessary or if not may include the report in the agenda of the next Safety Committee regular meeting for discussion.

Recommendations made by the Safety Committee meeting and discussion will be reviewed by the Safety Standards for drafting of necessary safety regulation or policy to effectively addressed the hazard.

Informal safety reports are recorded/ logged in the AOCC as well as with SQE department.

In due course all safety reports are stored in a data base (AODB) and all safety report forms will be accessed thru the computer (LAN) system and shared to the different airport officials and to stakeholders.

1.5.09 DOCUMENT CONTROL PROCEDURE

Mactan-Cebu International Airport GMCAC Safety Management System Manual is a controlled document prepared by GMCAC. It ensures safety at GMCAC operational area like apron, terminal buildings, land side, establishes a robust safety reporting system and contributes enormously towards achieving safety standards at MCIA as a whole.

1.5.10 DOCUMENT IDENTIFICATION

The SMS Manual was prepared in accordance to the template provided in ICAO Doc.9859 AN/474 Security Management Manual, Third Edition, 2013 approved by the Secretary General, International Civil Aviation Organization, approved by the Secretary General and published under his authority. The template includes: The ICAO SMS framework comprises four components and twelve elements as follows:

1. Safety policy and objectives
    - 1.1 Management commitment and responsibility
    - 1.2 Safety accountabilities
    - 1.3 Appointment of key safety personnel
    - 1.4 Coordination of emergency response planning
    - 1.5 SMS documentation
2. Safety risk management
    - 2.1 Hazard identification
    - 2.2 Safety risk assessment and mitigation
3. Safety assurance
    - 3.1 Safety performance monitoring and measurement
    - 3.2 The management of change

3.3 Continuous improvement of the SMS

4. Safety promotion

4.1 Training and education

4.2 Safety communication.

1.5.11 VERIFICATION

The SMS Manual was prepared by GMCAC duly approved by Chief Executive Advisor and submitted to the Civil Aviation Authority of the Philippines (AANSOO-CAAP). It is based on International Civil Aviation Organization (ICAO) framework elaborated in 1.5.10.

1.5.12 AUTHORIZATION

The SMS Manual was prepared by GMCAC and duly approved by Chief Executive Advisors and submitted to the Civil Aviation Authority of the Philippines.

1.5.13 DISTRIBUTION LIST

Copy	Copy Holder	Location
Master Copy	Safety Management Safety Unit	GMCAC
Copy No. 1	Chief Executive Advisor	GMCAC
Copy No. 2	Chief Operating Officer	GMCAC
Copy No. 3	Chief Commercial Officer	GMCAC
Copy No. 4	Chief Finance Officer	GMCAC
Copy No. 5	Chief Corporate Affair Officer	GMCAC
Copy No. 6	Head- Engineering	GMCAC
Copy No. 7	Hear- Human Resource Management	GMCAC
Copy No. 8	Head- Legal	GMCAC
Copy No. 9	Terminal Manager	GMCAC
Copy No. 10	General Manager, MCIAA	MCIAA
Copy No. 11	Airport Assistant General Manager	MCIAA
Copy No. 12	Manager, Airport Grounds Operations Division	MCIAA
Copy No. 13	Aerodrome Auditor, AANSOO - CAAP	CAAP, Manila
Copy No. 14	Manager, Cargo and MRO Division	MCIAA
Copy No. 15	Manager, Rescue and Firefighting Services Division	MCIAA
Copy No. 16	Manager, Police Force Division	MCIAA
Copy No. 17	Manager, Medical Division	MCIAA
Copy No. 18	OIC, General Aviation and Industrial Division	MCIAA
Copy No. 19	Area Manager, CAAP Mactan	CAAP, LLC
Copy No. 20	Chief, Air Traffic Controller	ATC, Mactan
Copy No. 21	Chief, 7TH PCAS	MCIAA
Copy No. 22	Airlines	Mactan Station

Copy No. 23	Ground Handling Companies	Mactan Station
Copy No. 24	General Aviation Aircraft Operators	Mactan Station
Copy No. 25	Aircraft Catering Services	Mactan Station
Copy No. 27	Cargo Handling Companies	Mactan Station
Copy No. 28	Refueling Services Providers	Mactan Station
Copy No. 29	Aircraft Utility Services Providers	Mactan Station
Copy No. 30	Record Room	GMCAC

1.5.14 UPDATE AND FILING

The SMS Manual has been drafted in July, 2014 as a part of the Conditions Precedent in the Concession Agreement between GMCAC and MCIAA/DoTC. This V.1.0 will be submitted to MCIAA and CAAP for necessary action. This is a living document and after due approval of competent authority needs to be reviewed and updated as and when required.

1.5.15 AMENDMENTS

Procedures for Amendment /Revision of the SMS Manual:

a. The SQE Manager is responsible for the continuous improvement of the manual including processing, issuance and control of amendments. All copies of the SMS manual are numbered and issued in accordance with the distribution list. Individual holders of a copy of the manual as indicated in the distribution list are responsible for insertion of all amendments.
b. A copy of the amendment will be submitted to MCIAA and the Civil Aviation Authority of the Philippines.
c. Proposed amendment will be submitted to MCIAA and the Civil Aviation Authority of the Philippines.

d. Upon approval by the CAAP, copies of the approved amendment /revision will be made and distributed to the holders of the SMS manual.

e. The SMS manual amendment/revision page will be completed and submitted with the amendment/revision.

f. Minor amendments (e.g. telephone number, clerical error) can be accommodated by hand amendment with prior approval of the Chief Executive Advisor, GMCAC.

g. Each page of the amendment/revision, including the amendment/revision page will have the date of the amendment/revision and the original approval date of the manual.

h. If an amendment is to be undertaken in the SMS Manual it is reflected in the Amendment Table at page number 3 of this Manual.

Section-2

SAFETY RISK MANAGEMENT

2.1
HAZARD IDENTIFICATION

2.1.01 HAZARD IDENTIFICATION

Hazard identification is the process used to determine all possible situations, events and circumstances that may expose people to injury, illness, disease or death or may cause damage or loss of equipment and property, or damage to the environment.

2.1.02 INCIDENTS

Apart from aircraft incidents, other incidents are events other than an accident, associated with the operation of the aerodrome that results in personnel injury or damage to vehicles, plant or equipment.

2.1.03 ACCIDENTS

Apart from aircraft accident, other accidental damages to vehicles, plant or equipment; death or serious injury to personnel or customers resulting from aerodrome operations; or damage to property or injury to other personnel resulting from company operations qualify as accidents and must be immediately reported to the Safety Manager. The Safety Manager shall notify the relevant authorities, as required, and conduct investigations into the event.

Any employee observing a hazardous condition or object that could affect safety at airport is encouraged to report it to the Safety Manager or to the Safety Management System Unit. The Safety manager will provide hazard-reporting forms, which may be used for this purpose. Anonymous reports will also be accepted.

At GMCAC, it is mandatory to report any incident involving an unsafe or potentially unsafe, occurrence or condition, irrespective of whether it involves injury or property damage or not. The report should be submitted to the SQE Manager or to the Safety Management System Unit as soon as possible after the occurrence but in any case not later than 24 hours after the incident (see appendices for incident report forms). The accident/incident reports may be submitted in Standard format. The person reporting, at his/her own discretion, may or may not disclose his/her identity.

2.1.04 HAZARD IDENTIFICATION PROCESS

Hazard identification process is done through the following work systems applied in the day to day basis at the airside and landside operations of the airport as follows:

a. visual inspection
b. auditing
c. testing
d. technical or scientific evaluation
e. an analysis of injury or near miss data
f. discussions with designers, manufactures, suppliers, importers, employers, employees or relevant parties.

All GMCAC divisions involve in the maintenance of facilities and equipment and operations of the airport conducts regular and periodic inspection of facilities and equipment under their respective area of jurisdiction. The inspection is done through the guide of an inspection checklist/inspection form. Visual inspections are also conducted by duly authorized technical personnel or any competent personnel for that purpose assigned by the Division Manager.

2.1.05 APRON INSPECTION

GMCAC shall be responsible for inspections on Aprons, stands and taxiways up to the areas that come under purview of GMCAC as per the Concession Agreement signed on 22nd of April 2014 between DOTC-MCIAA and JV (GMCAC). Beyond this area, MCIAA shall be responsible for carrying out a daily airside inspection twice daily through a composite team. The first inspection is conducted in the morning between 6am to 7am to see to it that aircraft movement areas are free of hazard. The second inspection is conducted during night time between 9pm to 10pm to see to it that all pavement, taxiway and runway markings are visible for nighttime aircraft operations and to check that all airside lightings are operational including navigational facilities. Any observation during the inspection is reflected in the Airside inspection forms provided for the activity (Refer to Appendices of this manual for the inspection forms). Besides, these, runway inspection shall be carried out as and when ATC advises to do so.

The scope of the inspection for GMCAC covers only apron, stands and GSE areas. (the entire aircraft movement areas, navigational equipment and facilities, the airport security access road, airport security posts and the General Aviation Area fall under the jurisdiction of MCIAA).

The members of the Inspection team are the following:

a. SQE Manager
b. Manager, Apron Management Unit
b. GMCAC Security Manager
c. HOD Engineering, GMCAC
d. HOD Terminal Management, GMCAC
e. Fire Officer - GMCAC

Each member will complete the inspection form provided by SQE Manager for this purpose and submit to SQE Manager with a copy to AOCC. The inspection forms are checklists for each concerned personnel including facilities and equipment within their respective area of jurisdiction and the operations of ground support vehicles and equipment on the ramp.

The scope of the inspection covers the whole apron and aircraft movement areas under GMCAC.

2.1.06 REVIEW PROCESS

The SQE Manager is responsible for the review of all safety reports contained in the Safety files and library. Safety reports that can

be resolved within the SMS Unit level will be acted by the Safety Officers concerned. Safety reports that needs resolution and consultation with other stakeholders will be elevated to the Aerodrome Safety Committee for discussion.

2.2
SAFETY RISK ASSESSMENT AND MITIGATION

2.2.01 HAZARD ANALYSIS

Hazard Analysis is a three step process used to assess risks.

a. Identify the Generic hazard or the Top Level Hazard

b. Identify Specific hazards or Component Hazards

c. Link specific hazards to specific consequences

2.2.02 DOCUMENTATION OF HAZARDS

Appropriate documentation management regarding hazard identification is important as a formal procedure to translate raw operational safety information into hazard-related knowledge. Continuous compilation and formal management of this hazard-related knowledge becomes the "safety library" of an organization.

In order to develop knowledge on hazards and thus build the "safety library", it must be remembered that tracking and analysis of hazards are facilitated by standardizing:

a. definitions of terms used

b. understanding of terms used

c. validation of safety information collected

d. reporting

e. measurement of safety information collected

f. management of safety information collected

2.2.03 SAFETY RISKS MANAGEMENT

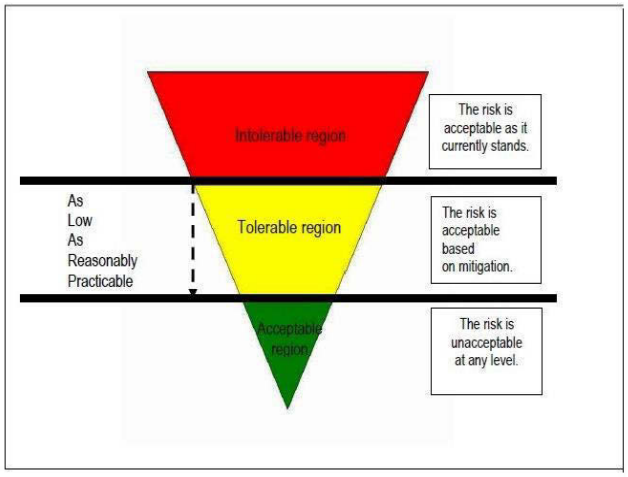
Safety Risks Management is the process of classifying the associated risks or consequences of hazards according to its severity or magnitude.

SMS Unit reviews all hazards identified and identify their risks consequences. Following the identification of the risks consequences, classify them according to its severity or magnitude clearly defined as follows:

a. **Intolerable Risks** – are those risks that are practically unacceptable in any level and needs immediate mitigation. The risk probability and magnitude are damaging and poses threat to the viability of the organization in its delivery of services (i.e. disruption of aircraft movements on apron due to vehicle movement of GSE operations).

b. **Tolerable Risks** – are those risks assessed as damaging but acceptable based on applied mitigation. In this case, aircraft operation or movement of passengers are not affected.

c. **Acceptable Risks** – the risk is acceptable and manageable. No immediate mitigation is needed. (i.e. fading away of apron marking, lights, fixtures etc.)



2.2.04 SAFETY RISKS PROBABILITY & SEVERITY

The process of bringing the safety risks of the consequences of hazards under organizational control starts by assessing the probability that the consequences of hazards materialize during operations aimed at delivery of services. This is known as assessing the safety risk probability.

Safety risk probability is defined as the likelihood that an unsafe event or condition might occur. The definition of the likelihood of a probability can be aided by questions such as:

a. Is there a history of similar occurrences to the one under consideration, or is this an isolated occurrence?

b. What other equipment or components of the same type might have similar defects?

c. How many personnel are following, or are subject to, the procedures in question?

d. What percentage of the time is the suspect equipment or the questionable procedure in use?

e. To what extent are there organizational, management or regulatory implications that might reflect larger threats to public safety?

Safety Risks Probability is conducted by the SMS Unit by reviewing and assessing all safety reports, documents and safety data contained in the Safety documentation library, apply answers to the sample questions above as an aide to determine the likelihood of the probability of an unsafe event as depicted in the table below:

Qualitative Definition	Meaning	Value
Frequent	Likely to occur many times (has occurred frequently)	1
Occasional	Likely to occur sometimes (has occurred infrequently)	2
Remote	Unlikely to occur, but possible (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	4
Extremely Improbable	Almost inconceivable that the event will occur	5

Safety Risk Severity is defined as the possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation. The assessment of the severity of the consequences of the hazard if its damaging potential materializes during operations aimed at delivery of services can be assisted by questions such as:

a. How many lives may be lost (employees, passengers, bystanders and the general public)?

b. What is the likely extent of property or financial damage (direct property loss to the operator, damage to aviation infrastructure, third-party collateral damage, financial and economic impact for the State)?

c. What is the likelihood of environmental impact (spillage of fuel or other hazardous product, and physical disruption of the natural habitat)?

d. What are the likely political implications and/or media interest?

At GMCAC, the SMS Unit conducts assessment of the consequences of all identified hazards according to its magnitude in the worst foreseeable scenario. This is conducted by assessing all safety reports in the Safety library and assessed each report by applying severity analysis index below:

Severity of Occurrence	Meaning	Value
Catastrophic	- Equipment destroyed - Multiple deaths	A
Hazardous	- A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely - Serious injury - Major equipment damage	B
Major	- A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in work load, or as a result of conditions impairing their efficiency - Serious incident - Injury to persons	C
Minor	-Nuisance - Operating limitations - Use of emergency procedures - Minor incident	D
Negligible	Little consequences	E

2.2.05 SAFETY RISKS TOLERABILITY AND ASSESSMENT PROCESS

Once the safety risk of the consequences of an unsafe event or condition has been assessed in terms of probability and severity, the third step in the Risk Management is the process of bringing the safety risks of the consequences of the unsafe event or condition under organizational control. Assessment of the tolerability of the consequences of the hazard if its damaging potential materializes during operations aimed at delivery of services.

Safety Risk Tolerability Assessment Process follows the following steps.

(1) Obtaining an overall assessment of the safety risk is the primary step. This is achieved by combining the safety risk probability and safety risk severity tables into a safety risk assessment matrix as shown in Safety Risk severity Table. For example, a safety risk probability has been assessed as occasional (4). The safety risk severity has been assessed as hazardous (B). The composite of probability and severity (4B) is the safety risk of the consequences of the hazard under consideration.

(2) The safety risk index obtained from the safety risk assessment matrix must then be exported to a safety risk tolerability matrix that describes the tolerability criteria. The criterion for a safety risk assessed as 4B is, according to the tolerability table in Figure 2.2.4 "unacceptable under the existing circumstances". In this case, the safety risk falls in the intolerable region of the inverted triangle. The safety risk of the consequences of the hazard is unacceptable.

2.2.06 MITIGATION AND SAFETY RISK CONTROL

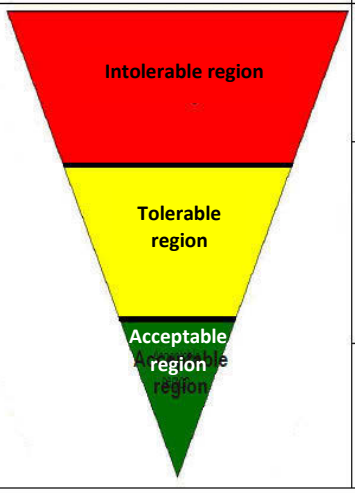
a. allocate resources to reduce the exposure to the consequences of the hazards;

b. allocate resources to reduce the magnitude or the damaging potential of the consequences of the hazards; or

c. cancel the operation if mitigation is not possible.

The SMS Unit determines the Safety Risks Tolerability by applying the Risk Tolerability Index as stated below:

Risk Probability	Risk Severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely improbable 1	1A	1B	1C	1D	1E

Suggested Criteria	Assessment risk index	Suggested criteria
	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances
	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C	Acceptable based on risk mitigation. It may require management decision.
	3E, 2D, 2E, 1A, 1B, 1C, 1D, 1E	Acceptable

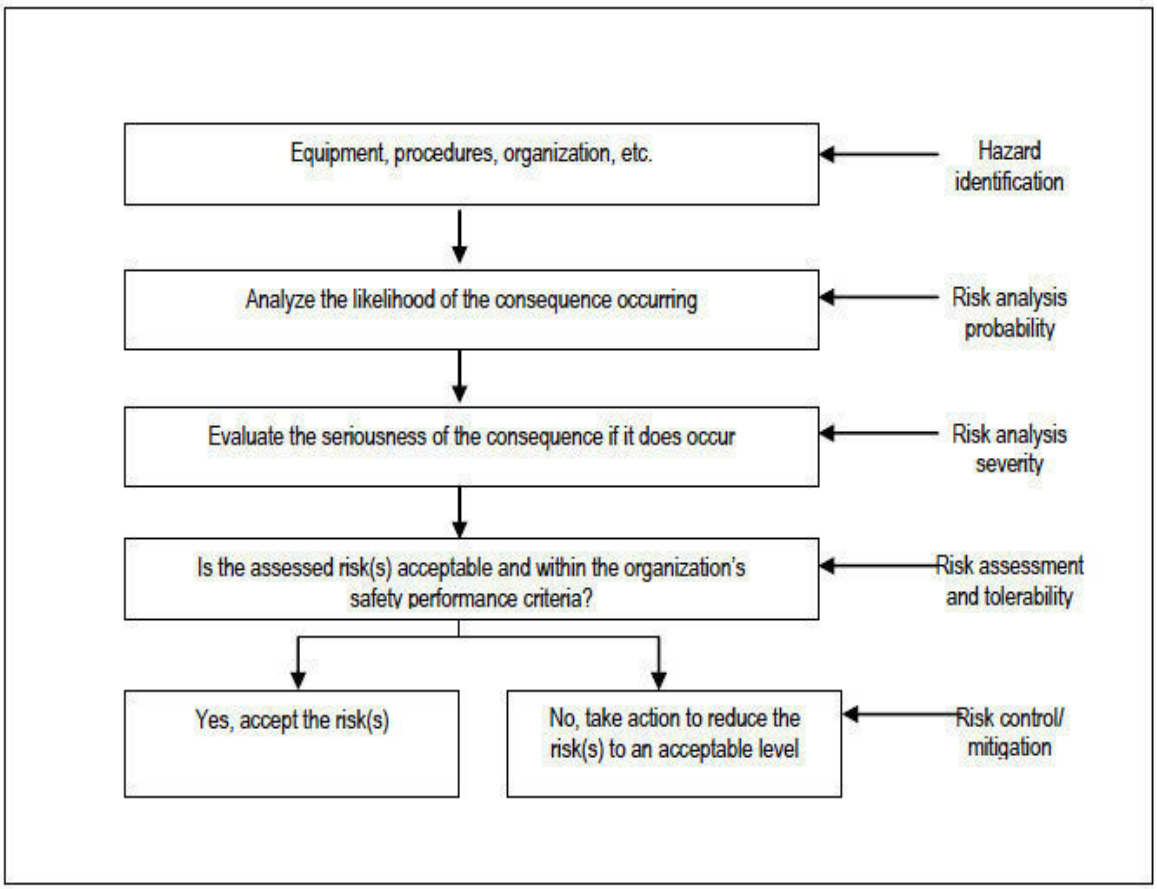
SAFETY RISK CONTROL:

The fourth and final step of the process of bringing the safety risks of the consequences of an unsafe event or condition under organizational control, control/mitigation strategies must be deployed to address the hazard and bring under organizational control the safety risk probability and severity of the consequences of the hazard.

Continuing with the example presented above, the safety risk of the consequences of the hazard under analysis has been assessed as 4B ("unacceptable under the existing circumstances"). Resources must then be allocated to slide it down the triangle, into the tolerable region, where safety risks are ALARP (As low as Reasonably Practicable). If this cannot be achieved, then the operation aimed at the delivery of services which exposes

the organization to the consequences of the hazards in question must be cancelled.

This flow chart presents the process of safety risk management in GMCAC.



After assessment of the hazards identified, or as a result of an investigation into an incident or accident, the Safety Manager assigns a priority to the risk associated with the hazard, incident or accident and identifies the best risk treatment option. The Safety Manager elevates

hazards that need involvement of other organizations/stakeholders to the Safety Committee for discussion of risk mitigation/treatment.

Safety information can help in the assessment and evaluation of these breakdowns with the goal of preventing its occurrence through an effective operational error management and to apply the three strategies to control operational errors namely:

a. Reduction

b. capturing and

c. tolerance strategies.

Corrective and preventive actions have to be discussed between the General Manager and the Safety Manager based on Safety information and Safety Reports.

The Safety Manager prioritizes the action/s required, to ensure remedial action is undertaken in a timely manner. When immediate response is required, the Safety Manager takes all necessary steps to resolve the situation and may revert to following emergency procedures as required.

Except where circumstances exist clearly preventing such an outcome, company policy is to treat risks in the following order of preference:

a. Eliminate the hazard/risk completely

b. Reduce the level of risk, or the consequences or likelihood of that risk occurring;

c. Avoid the risk by actions such as closing the aerodrome for a period

d. Transfer the risk to other risk stakeholders (such as insurers) or

e. Accept the risk

The Safety Manager reports the outcome of the assignment of each risk to the personnel making the report. The results of treatment options may be communicated generally using one of the means stated here.

The Safety Officer responsible for taking action to address and assessed risk will report to the Safety Manager on the results. If the risk has been categorized as a "Short Term Corrective Action", the responsible manager/supervisor shall report back to the Safety Manager within 2 months of the date of report.

The Safety manager makes periodic reviews of the Hazard Log/Reports for trends in risk. Unless there are reasons, this trend should be towards less risk over time, as hazards are identified and treated.

Depending on the severity and magnitude of the risks associated for a particular hazard identified at MCIA, the following proposed actions to treat the risks are recommended whichever is most appropriate considering its cost and effectiveness:

a. Reprimand

b. Recurrent training of personnel

c. Ongoing review of a particular activity or task

d. Improve personnel supervision

e. Targeted safety information or advice

f. Limit exposure to the risk

g. Availability of documented Procedures

h. Improve staff and management commitment to work safety.

i. Adequate resource allocation for safety related activities

j. Testing the procedures of the Airport Emergency Plan(drill exercises)

k. Close supervision of security personnel assigned at airside access gates

l. Make representations with identified nearby barangays regarding the need to pass an ordinance prohibiting the flying of kites within the vicinity of the airport's obstacle limitation surface area.

A formal report for each action taken on each particular risk will be submitted to the CEA by the Safety Manager for his information, review and approval for implementation.

Section-3

SAFETY ASSURANCE

3.1

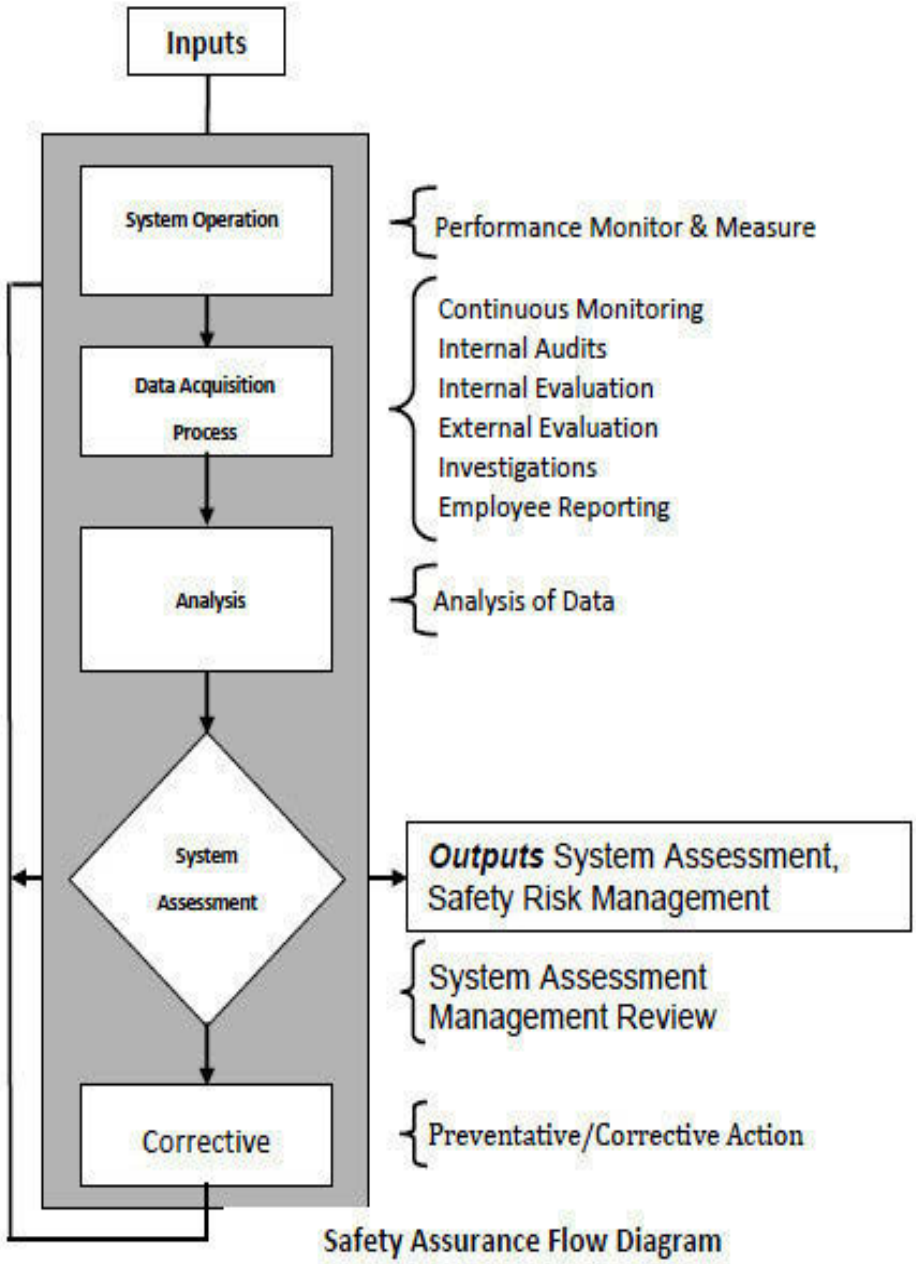
SAFETY PERFORMANCE MONITORING AND MEASUREMENT

3.1.01 SAFETY PERFORMANCE MONITORING MEASUREMENT

Safety risk management requires feedback on safety performance to complete the safety management cycle. The safety risk management process culminates in development and implementation of appropriate safety risk controls. Once controls for the safety risks of the consequences of hazards are designed, deemed to be capable of controlling safety risks, and put into operation, safety assurance takes over safety risk management.

Safety assurance consists of processes and activities undertaken by the organization to provide confidence as to the performance and effectiveness of the controls. Deterioration in operational procedures, facilities and human performance would signal the need to return to the safety risk management process to review and revise existing safety risk controls or develop new ones

The primary task of safety assurance is control. This is achieved through safety performance monitoring and measurement, the process by which the safety performance of the organization is verified in comparison with the safety policy and approved safety objectives. Safety assurance control is conducted by monitoring and measuring the outcomes of activities that operational personnel must engage in for the delivery of services by the organization.



Safety Assurance Flow Diagram

3.1.02 DATA MONITORING PLAN

Data will be collected quarterly using paper surveys and theoretical data collection sheets as well as electronic data storage. Paper data records will be stored in a locked location in the Safety office. Electronic files containing confidential participant information will be stored on the local area network at the SMS office, using a password protected folder through which Safety staff may access and update records.

3.1.03 SAFETY MONITORING PLAN

In line with GMCAC Accident / Incident reporting procedure or theoretical data which Risk Rating higher than Tolerable level, the elements will be reactively monitored. Based on the issued GMCAC safety procedures, a range of active safety performance indicators is established and will be used to assess compliance with the requirements of the procedures. Active monitoring performance indicators will be reviewed (and may be changed) as procedures are issued or modified.

On a quarterly basis, a report will be sent from each department to the SMS Unit. The report will be used to update the Safety Action Plan with

a. Accidents and Incidents,

b. Compliance with performance indicators,

c. Summary of activities within the quarter.

3.2

THE MANAGEMENT OF CHANGE

3.2.01. THE MANAGEMENT OF CHANGE

Changes in organizations occur constantly due to many factors: expansion, contraction, changes and upgrades of equipment, programs, products and services. With these changes, hazards are introduced. Safety management practices require that hazards that are a by-product of change be systematically and proactively identified and those strategies to manage the safety risks of the consequences of hazards be developed, implemented and subsequently evaluated.

The key activities are:

a. Monitoring,

b. Informing and communicating,

c. Control activities (reviews and reports).

d. Risk Assessments

In order to demonstrate that we have adequate control over our safety systems we must also be able to demonstrate control over the wider operational environment.

3.2.02 RISK

If not properly controlled changes could be made which negatively impact on the business and prevent people from fulfilling their roles. Changes could be made by individuals who are not fully aware of the impact on other

areas of the business. If change is not controlled the organization could be exposed to fraudulent activities.

Risk Assessment: The SMS Controller will check all the Risk Assessment and processes affected by the proposed change and list recommendation of change. A copy of the Risk Assessment, including the change recommendation, will be sent to the Safety Committee.

a. Check the Risk Assessment and Recommendation carefully to make sure that nothing has been missed.

b. Notify the Safety Manager, of any missing risks or if there are problems with the recommendation.

c. Authorize the Risk Assessment and Recommendation.

Implementation Plan: The Implementation Plan details all the stages that are required in order to successfully manage the change and include a Test Plan and Roll Back Strategy. In more complicated changes this may also include a project schedule and timeline.

a. Review the Implementation Plan.

b. Make the SMS Controller aware of any amendments or changes.

c. Make note of the timeline and any training or testing and how this will affect department staff.

d. Make note of any dependent tasks (i.e. if one department is unable to make a change until another has completed theirs).

e. Authorize the Implementation plan.

Pre-Change: Once the Implementation Plan has been approved it is vital that the staff in each department is made aware of what needs to happen, when and by whom.

The SQE Manager:

a. Notifies affected Staff of the change and assigns actions and makes them aware of the Strategy.

b. Ensures that Staff who have been allocated Test Actions have copies of the Test Plan and are aware that all test documentation is to be retained.

c. Safety Manger and the Change Management Controller shall ensure that all aspects of the change are progressing as planned.

3.2.03 RESPONSIBILITY

The SQE Manager ensures that changes follow the change management procedure. The change management schedule is reviewed quarterly to ensure all changes follow the procedure by both Management and Safety Committee.

3.2.04 CHANGE PROCEDURES

All communications need to be in writing, i.e. by email, meetings need to have minutes taken etc. This documentation will be retained by the SMS Controller and filed with the Change Documentation relating to the change. For this reason verbal requests and authorization are not acceptable.

1. Submit the Change Request

a. Enter as much detail as possible in the Request Details section. If this change will affect other departments please enter the names of the Department Managers in the Other Departments Affected section.

b. Once the request has been completed send them to the safety officer. They will log the request and pass it to the SMS Controller so that the change can be scheduled.

Change: To minimize unnecessary disruption ensure that the plan is followed as closely as possible and any issues are highlighted to the SMS Controller as soon as possible. The SMS Coordinator will co-ordinate communications between all the Safety Committee Board.

Ensure all the staff follows the Implementation Plan.

Post Implementation Review: Once a change has been implemented it is important that the situation is reviewed to identify any problems that could be prevented in future or improvements that could be made.

The Safety Committee will carry out a Post Implementation Review one month after the change has been promoted to Live (unless problems or issues present themselves more immediately).

Two months after the change has been implemented the Safety Committee will conduct a further review.

The SMS Safety Manager will review Change Documentation and follow up material quarterly. The minutes and action points of these reviews are held on file with the SMS Controller.

The Safety Officers will examine the Change Management Documentation on a half yearly and End of Year basis and their comments and recommendations will be acted upon.

3.3

CONTINUOUS IMPROVEMENT OF THE SMS

3.3.01. CONTINUOUS IMPROVEMENT ACTIVITIES

The planning, coordination and control of activities for continual improvement is the responsibility of the Safety Manager and the Safety Officers. Continual improvement activities include - but are not be limited to - the following:

a. activities of the Safety Officers under the responsibility of the SQE Manager

b. actions on results from analysis of data

c. evaluation of Safety

d. achievement of departmental Safety objectives

e. results from internal Safety audits

f. corrective actions and preventive actions (CAR)

g. periodic review of controlled documents

The objectives of the corporate Safety Policy are taken into consideration for planning of improvement. During SMS Reviews, the effectiveness of continual improvement is reviewed and opportunities for improvement are identified.

3.3.02 INFORMAL INSPECTION

Informal inspections are carried out by employees and work site supervisors in their own work areas on a daily, weekly, monthly or annual basis. Work sites that are not used on a daily or weekly basis are visually inspected upon entry. Supervisors and employees should develop an informal inspection checklist that is specific to their work area.

Only those inspections that result in a problem being identified will be reported. Identified problems will be reported by the work site supervisor to the Manager responsible for the work site and will state what the problem is, what action was taken and outline any recommendations for change. It is recommended that all informal inspections be recorded to show due diligence.

3.3.03 FORMAL INSPECTION

SMS Unit is responsible to ensure a safe and healthy workplace and is responsible to inspect the workplace to ensure its safety. The formal inspection shall be conducted by the Safety Manager at least annually and must include any forms used during the inspection along with any written recommendations.. The Safety manager will send the workplace Formal Inspection Form to the concerned Manger with a copy to the Safety Committee.

3.3.04 ACCIDENT/INCIDENT INVESTIGATION PROCEDURE

Accident/Incident investigation procedure has been stated below:

No.	Steps	Notes
1	Check work site where accident incident occurred.	When first notified, ensure host employer does not move or change anything at the accident / incident work site (if possible).
2	Interview Co-workers, supervisor, host employers representative and workers (if possible).	Use accident investigation control document to ensure full history of accident / incident is documented.
3	Sketch diagram of work site where accident / incident occurred.	Include at least the following:- • layout of immediate work site • work operation at time of accident / incident • materials/stock/equipment involved how the accident / incident occurred (if possible)
4	If possible, and can be completed in a safe manner, observe others undertaking the same task.	Observe for system failures or contributing factors ie: distractions, complacency, repetitive task, environmental factors etc.
5	Discuss accident / incident with host employers OHS representative (if applicable) and the workers direct supervisor.	Determine whether accident / incident occurred through failure of the following systems, policies or procedures:- • employee training/induction • work practice • supervisory control (direct/indirect) • machinery/tools work site layout
6	Determine how future accidents / incidents could be avoided / controlled	Liaise with host employer and make suggestions, recommendations.

Accident/Incident Investigation check-list and Report are to be used as per the format enclosed in Appendix.

Section-4

SAFETY PROMOTION

4.1

TRAINING AND EDUCATION

4.1.01 SAFETY TRAINING AND EDUCATION

Safety promotions are processes and procedures that ensure that personnel are trained and competent to perform their safety management duties and allow for communication of safety issues among operational personnel and with the organization's management.

Through safety promotion an organization adopts a culture that goes beyond merely avoiding accidents or reducing the number of incidents, although these are likely to be the most apparent measures of success. It is more to do the right thing at the right time in response to normal and emergency situations.

4.1.02 TRAINING GENERAL

An organization's safety culture is adhered to the success of its safety management training program. All personnel must understand the organization's safety philosophy, policies, procedures and practices, and must be aware of their roles and responsibilities within that safety management framework. Safety training begins with the initial familiarization of employees and continues throughout their employment. Specific safety management training is provided for staffs who occupy positions with particular safety responsibilities. The training program ensures that the safety policy and principles of the organization are understood and adhered to by all staff, and that all staff concerned is aware of the safety responsibilities of their positions.

The Safety Management System Unit through its Airport Safety Manager develops a training program relating to the functioning of the safety program for the induction/refresher training of all relevant personnel. The details of the safety responsibilities would then be added to the job

descriptions and records reflecting dates, names, subjects covered and course presenters will be maintained.

4.1.03 TRAINING PROGRAMS

The Safety Management System Unit through its SQE Manager would, in conjunction with the personnel department, review the job descriptions of all staff and identify those positions that have safety responsibilities. The details of the safety responsibilities would then be added to the job descriptions. Once the job descriptions have been updated, the Safety Manager should conduct a training need analysis to identify the training that will be required for each position.

Depending on the nature of the task, the level for safety management system training required will vary from general safety familiarization to expert level for safety officer (safety specialists), for example:

c. Corporate safety training for all staff according to training needs evaluation.
d. Training designed at management's safety responsibilities.
e. Training for operational personnel.

During the initial implementation of an SMS, specific training will be provided for existing staff. Once the SMS is fully implemented, the safety training needs of those other than the safety officer (safety specialist) should be met by incorporating the appropriate safety content into the general training program for their positions.

One of the functions of safety management training is to create awareness of the objectives of the SMS of the organization and the importance of developing a safety culture. All staff would receive a basic introductory course covering:

a. Basic principles of safety management;

b. Organizational safety philosophy, safety policies and safety standards (including organizational approach to disciplinary action versus safety issue, integrated natures of safety management, risk management decision-making, safety culture, etc.)

c. Importance of complying with the safety policy and with the procedures that form part of the SMS.

d. Organization, roles and responsibilities of staff in relation to safety.

e. Corporate safety record, including areas of general weakness.

f. Corporate safety goals and objectives

g. Corporate safety management programs (e.g. incident reporting systems, voluntary reporting scheme and incident recall meetings)

h. Requirement for ongoing internal assessment of organizational safety performance (e.g. employees surveys, safety audits and assessments)

i. Reporting accidents, incidents and identified hazards

j. Lines of communication methods for safety matters

k. Feedback and communication methods for the dissemination of safety information

l. Safety awards programs (if applicable)

m. Safety audits

n. Safety promotion and information dissemination

4.1.04 SAFETY TRAINING FOR MANAGEMENT

It is necessary that the management team must be fully aware and knows the safety standards on which SMS is supported. Training guarantees managers and supervisors to be well versed of the viewpoint of the Safety Management System and their accountabilities and responsibilities with regards to safety. In short, proper training is a must.

4.1.05 SAFETY OFFICER'S (SAFETY SPECIALIST) TRAINING

Various safety associated task needs well verse and trained personnel, it comprises training to:

a. Investigate safety occurrences

b. Monitor safety performance

c. Perform safety assessments

d. Administer safety data bases

e. Conduct safety audit

4.1.06 SAFETY TRAINING FOR OPERATIONAL PERSONNEL

In addition to the corporate introduction outlined above, personnel engaged directly in airport operations will require more specific safety training with respect to:

a. Procedures for reporting accidents and incidents;

b. Unique hazards facing operational personnel

c. Procedures for hazard reporting;

d. Specific safety initiatives, such as safety committee(s), seasonal safety hazards and emergency procedures.

e. Managing safety databases

f. Performing safety audits

It is mandatory that staff performing these tasks receive proper training in the special methods and technique involved, on how important the training requires and the level of existing expertise in safety management within the organization, acquiring assistance from external specialist is also necessary to get hold of that expertise

Operational Personnel		**Managers and Supervisors**		**Senior Managers**
1. Organizations Safety Policy 2. SMS Fundamentals and overview	+	3) The Safety Process 4) Hazard Identification and risk management 5) The management of change	+	6) Organizational safety standards and national regulations 7) Safety Assurance

SAFETY TRAININGS

4.1.07 GMCAC TRAINING STANDARDS PROGRAM

The GMR MEGAWIDE CEBU AIRPORT CORPORATION (GMCAC) has adopted the GMCAC Training Standards Program to enhance safety, security and customer service within the airport area of responsibility. In line with these, the program is required by GMCAC to generate and provide well – trained workforce as maintaining airport safety and security as well as customer services being one of its primary objectives which is significant for the successful operation of the aerodrome.

4.1.08 GENERAL STANDARDS

The GMCAC Training Standards Program provides basic standards and requirements for training of all employees, requirements for training records, and annual training updates and certifications. The training standards are focused in four general areas:

Area	**General Standards**
Safety	General Safety standards and evacuation procedures for emergency situations.
Security	Compliance with Security regulations and knowledge of the Security concerns specific to an airport.
Customer Service	Appropriate positive interaction with passengers in representation of the airport and the employer.
Assisting persons with Disabilities (PRM- Passengers with Reduced Mobility)	Proper etiquette in assisting persons with disabilities and compliance with persons with Reduced Mobility regulations.

4.1.09 TRAINING DELIVERY METHODS

The GMCAC General Training Modules will be provided by the Safety Management System Unit in the following formats:

a. PowerPoint presentation

b. Train-the-Trainer for employers to provide the training to their employees

c. Orientation Sessions or Orientation Packets for employers to present to their new employees.

New employees should receive orientation ***within the first month*** of their appointment. The responsibility to get such new incumbent trained lies with the employer. This includes employees transferring from other locations/airports.

4.1.10 GMCAC/MCIAA BADGING SYSTEM

The GMCAC Airport Badging System will be administered by the MCIAA ESSD (Emergency, Security Services Department) through the ID/ Intel Pass Division.

The Role Specific Training Modules will be provided in consultation with MCIAA either through the badging process or provided to the employer to present to their employees, dependent upon the type of training. Employers must ensure that required training modules are provided to applicable employees.

4.1.11. REQUIREMENTS

The individual training standards and requirements for each employee are determined by several factors:

1. MCIAA Pass Section
2. AOCC feedback
3. Role and function of the job
4. Passengers/Customer contacts
5. Work locations
6. Outcome of Incident/Accidents

4.1.12. EMPLOYEES IMPACTING SAFETY AND SECURITY

Employees in this category include those directly engaged in activities which may impact safety within the Aircraft Movement Area (AMA) at apron or in and around the Passengers Terminal Building. These employees include but are not limited to the following:

a. Employees providing ramp handling functions including aircraft cleaning, fueling, and baggage / cargo handling

b. Employees operating catering vehicles regularly on the AMA for servicing aircraft

c. Other employees issued a Restricted Area Badge (RAB) with AMA access working in and around the AMA in the performance of their duties

d. Employees stationed within the airport, including concessionaires.

Employees in the category of Security include those directly engaged in performing checkpoint security screening, passenger check-in activities; catering services and baggage check-in and handling services, Aircraft Movement Area (AMA) perimeter control, and other employees issued an airport Restricted Area Badge (RAB) with AMA access working in and around the AMA in the performance of their duties.

Employees in this category contact with Passengers and Customers including those directly engaged in activities bringing them in contact with passengers and other customers including employees of other organizations. These employees include but are not limited to the following:

Employees interacting directly with passengers including passenger check-in activities, and baggage check-in and handling services, gate assistance and loading, food and beverage service, retail service, car rental, wheelchair escorts, parking attendants, and airport parking and car bus drivers.

Customer service training includes a basic overview in the Orientation Module for all employees and a comprehensive training session for those listed above.

Employees in this category contact with Persons with Disabilities including those directly engaged in activities assisting persons with disabilities or those who may come into contact with persons with disabilities. These employees include but are not limited to the following:

a. Employees assisting persons utilizing wheelchairs or escorting persons with disabilities

b. Employees assisting passengers, including those directly engaged in passenger check-in activities, baggage check-in and handling services, gate assistance and loading, food and beverage service, retail service, car rental, airport parking, and shuttle bus drivers.

4.1.13 REGULATORY COMPLIANCE

Compliance monitoring for the GMCAC Training Standards Program is governed by GMCAC and MCIAA based on AO 139 and Aerodrome Manual of the airport.

The requirements of the GMCAC Training Standards Program are subject to change upon notice to the Employers/Employees.

4.1.14 RECORD KEEPING, REPORTING AND AUDITING

Employers must submit training records (Attachment F) to provide evidence their employees, contractors and vendors are in compliance with training requirements. The Training records are subject to audit by the Safety Management System Unit (SMSU). Training records must include the employee's name, job function, date the employee began working at the Mactan-Cebu International Airport (MCIA), and the date of each training class required by the GMCAC Training Standards Program (See Attachment F).

Each employer must submit at least by June 30 of each year a statement certifying that it is in compliance with the GMCAC Training Standards Program.

4.1.15 MEASUREMENTS OF PROGRAM VALUE

Each year the employer will be asked to include a statement of the success of the GMCAC Training Standards Program, as measured through improvements in productivity, safety, and customer service and employee turnover.

The GMCAC Training Standards Program is developed in support of the Mactan-Cebu International Airport's Mission and Vision in reference to the Aerodrome Manual.

4.1.16. RECURRENT TRAINING

The Safety Officer is responsible to ensure all staff to receive relevant recurrent training. This training shall consist of:

a. The Safety Management System

b. Compiling and submitting Hazard Reports, and reporting incidents and accidents

c. The responsibilities of all employees to participate in the Safety Management System

d. When new technology or equipment is introduced, or changes made to aerodrome operations (with an impact on safety), training will be provided.

In addition to formal training, the Safety Officer will keep staff informed and educate about current safety issues through providing relevant, safety related literature, sending them to safety related courses and seminars, thereby improving the safety health of the company.

4.1.17 TRAINING EVALUATION

The Safety Manager shall evaluate the effectiveness of the company training programs by the use of training feedback sheets that are designed to measure:

a. How well staff understands the operation of the Safety Management System;

b. How well staff are aware of the role they play in the Safety Management System; and

c. How much do staffs understand that the aim of the Safety Management System is to improve safety, and not to attribute blame.

Actual application of the effectiveness of the training result is easily observed and evaluated by the supervisors and managers in the knowledge and practices used in the workplace, and in any specific competencies that are required in the disposition of a certain work or field of assignment of the employee.

The Safety Manager shall monitor training records for any required personnel who have not attended induction or ongoing safety training, and invite them to the next relevant course.

4.1.18 TRAINING EXEMPTION PROCESS

All Restricted Area Badge required training is mandatory. Airport Stakeholders may request that their internal company training be accepted in lieu of the following two Role Specific training modules:

a. Customer Service – Working at Mactan-Cebu International Airport

b. Assisting Persons with Disabilities – Providing Exemplary Service

Exemption Process:

a. Review Airport Training Standards module and compare to your internal training to ensure all training topics are amply covered.

b. Fill out Training Exemption Request Form and submit to Airport Safety Manager, Safety Management System Unit-GMCAC, Mactan-Cebu International Airport.

c. Attach a copy of your training program materials or the course description and outline of topics covered in the relevant company training to be substituted in place of the training module.

d. The Airport will notify the company if the exemption for the training module has been granted or if follow up information is needed.

e. If request is denied, may appeal to Manager, Airport Operations Department.

f. The Covered Employer must secure any such approval from the Airport in advance of the time period the training covers.

Appendix-1 : **Role Based Training – Training Requirements per Function**

		Badge Requirements			Role Specific Training Modules				
	Orientation	Security Badge	Basic Security	Customer Service Overview	Authority to Drive Airside	Ramp Area Safety	Vehicle Inspection	Customer Service	AMA Awareness
Gate/Ticket Agents	x	x		x				x	
Ground Handling Services	x	x		x	x	x		x	x
Baggage Handlers	x	x		x					
Concessionaires	x	x		x				x	
Security Guards	x	x	x				x	x	
Aircraft Interior Cleaning	x	x				x			
General Aircraft Maintenance	x	x			x	x			
Aircraft Mechanics	x	x			x	x			
Aircraft Fueling	x	x			x	x			
Water/Lavatory Servicing	x	x			x	x			
Aircraft Catering Services	x	x			x	x			
Cargo Carriers	x	x			x	x			
Car Rental Agencies	x	x		x				x	
Parking Lot Attendant	x	x		x			x	x	
Facility Maintenance	x	x			x	x			x
Fixed Base Operators	x	x			x	x			

Legend : x typically

Appendix-2

Security Badge Definitions, Training Requirements

Badge Type	Ramp	Gen Av	Sterile	
Location	**Airside**	**General Aviation**	**Terminal Landside Terminal Airside**	**Landside**
Area Definition	Consists of areas designated for aircraft parking and maneuvering, enplaning/deplaning of passengers, and loading of cargo	Consists of ramp areas designated for fixed base operations (FBO), general aviation. Access is limited to these areas only.	Terminal Landside – transition point between the Landside and the Airside areas which includes carrier ticket counters, baggage claim, rental car counters, restrooms, applicable concessions, and security screening. Terminal Airside – transition point between landside and airside which includes retail food concessions, restrooms, passenger waiting areas, and aircraft gate access.	Consists of roadways, parking lots, rental car facilities and curbside.
Employees	Includes airlines and cargo personnel, ground support, and fixed base operations (when applicable). Access maybe limited for cargo employees.	Includes employees of Fixed Base Operators (FBO) and General Aviation tenants.	Includes employees working within the terminal beyond the check point.	May include car rental employees, hotel and tour operator representatives and porters. Access is limited to public areas only.
Training Requirement	1. AMA Awareness 2. Basic Security Awareness 3. Service Overview	1. Basic Security Awareness 2. Customer Service	1. Sterile Area Rules and Regulations 2. Basic Security Awareness 3. Customer Service	1. Basic Security Awareness 2. Customer Service
Additional Endorsement	1. Authority to Drive Airside (ADA) 2. Movement Area Driving	1. Authority to Drive Airside (ADA)		
Airport Security Guards	1. Vehicle Inspection 2. Basic Security Awareness			

Appendix-3A

General Training Modules Required for everyone

Module	Orientation	Basic Security Awareness	Service Overview
Topic 1	Introduction:	Area Definitions: Describes security areas: Landside, Terminal and Airside	Importance of Customer Service : Identifies reasons providing excellent customer service
Topic 2	Airlines, Destinations, Car Rentals; Business activity at MCIA	Access Control: Requirements for individuals and vehicles on ramp.	Attitude: Details importance of maintaining a positive attitude while serving customers.
Topic 3	MCIA Facilities: Runways, Terminals, Businesses	Security Agencies: Identifies the key players in airport security including the OTS and local law enforcement.	Consistency: Details importance of offering consistent service.
Topic 4	Working at an Airport: Different than any other organization	Security Measures: Basic vigilance measures to ensure security, reporting unattended bags and suspicious individuals.	Teamwork: Stresses the importance of teamwork to enhance the customer's perception of work group.
Topic 5	Customer Service: Representing MCIA, importance of good service, characteristics, measurement	Reporting Procedure: Procedures to report security issues to local law enforcement	Problem Solving: Encourages employees to be proactive in problem solving
Topic 6	ADA Awareness: Assisting persons with disabilities, mobility devices, hard of hearing/deaf, speech impediments, blind, developmental disabilities	Recognizing Security Issues: Ensure integrity of access control system, importance of monitoring doors and gates for security breach.	
Topic 7	Security Awareness: Unique environment, your responsibilities		
Topic 8	Safety: Basic principles, prevention and vigilance		
Topic 9	Airport Emergency Devices: What are they, where are they, who can use the defibrillators		
Topic 10	Evacuation Plan: Overview of process and rules, possible emergency situations		
Topic 11	MCIAA Mission and Vision		

Appendix-3B

Training – MCIA Airport ID System Modules

Module	AMA Training	Non – Movement Area Training	Sterile Area Training
Topic 1	Security Team Members: Describes the key players involved in airport security	Non-Movement Area Rules: Describes basic rules associated with the Non-movement area badge.	Security Definitions : Identifies definitions applicable to sterile area security and acronyms
Topic 2	Security Areas: Defines the different security areas located within the airport.	Security Areas: Defines the different security areas located within the airport	Security Areas: Defines the different security areas located within the airport
Topic 3	General AMA Rules: Describes in brief detail rules associated with an AMA badge	Escort Procedures: Details the requirements necessary to escort inside the Non-Movement Area.	General Security Rules: Describes requirements for receiving a sterile area badge
Topic 4	Individual/Group Access: Describes the difference between single and group access and associated rules	Administrative Cites: Describes security violations and associated monetary penalties	Responsibilities: Identifies responsibilities of sterile badge holders to challenge individuals unauthorized to be in sterile areas, including summoning of law enforcement
Topic 5	Vehicle media and Access: Describes type of vehicle media required to drive within AMA and associated procedures for entering the AMA with vehicle, including escort of other vehicles	Transient Aircraft Operations: Identifies which areas transient aircraft may park at when at the airport	Challenge Procedures: Describes the responsibility of sterile badge holders to challenge individuals unauthorized to be in sterile areas, including summoning law enforcement
Topic 6	Escort Procedures: Details the requirements necessary to escort an individual, who does not possess a badge, inside the AMA		Escorting Procedures: Identifies restrictions on escorting non-badged individuals inside sterile areas
Topic 7	Challenge Procedures: When and how to challenge individuals within AMA and procedures for summoning law enforcement personnel		Airport Security Program: Discusses the program in place to ensure airport security by employees working at the airport
Topic 8	Administrative Cites: Discusses the penalties associated with violations of the security rules and regulations		

Appendix-3C

Training – Role Specific Mandatory (Additional Endorsements to Badge for Certain Jobs)

Module	Authority To Drive Airside (ADA)	Movement Area Driving	Physical Vehicle Inspection
Topic 1	Air Operations Area (AOA): Defines areas within the AOA as either a movement or non-movement	Minimum Requirements: Discusses the minimum requirements to drive on the movement area	Safety Zone: Defines purpose and parameters associated with safety zones by airport terminal
Topic 2	Marking and Lighting: Describes types of marking and lighting used to help drivers navigate on the AOA	Obstacle free Zone: Describes OFZ and importance of keeping vehicles out of this area	Explosive Detection: Identifies methods of detecting potential explosives devices in vehicles
Topic 3	Perimeter Access Roads: Discusses when these roads may by used and by whom	Definition of Movement Area: Defines the location and purpose of the movement area	Reporting: Identifies measures to be taken in the event that a potential explosive device is found
Topic 4	Tug Use: Stipulates restrictions on tug use including the amount of carts a tug may pull and the number of individuals who may ride on a tug	Escorting Procedures: Identifies procedures for escorting vehicles and drivers which do not possess movement area privileges	Inspections: Provides basic instructions necessary to visually inspect a vehicle for explosive devices
Topic 5	Driving Safety Procedures: Discusses key elements in operating safely while on the AOA. Includes airport signage, key elements when operating in the close vicinity of aircraft, and driving at night	Safety Measures: Details basic safety measures to be taken to ensure safety when driving on the movement area including monitoring for aircraft and emergency vehicles	
Topic 6	Aircraft Refueling/HAZMAT Spills: Conveys basic procedures for refueling aircraft and steps to take when responding to HAZMAT spills	Runways and Taxiways: Details characteristics associated with runways and taxiways including lighting, markings and signage	
Topic 7	Lavatory Waste Operations: Describes basic procedures and safety measures for servicing aircraft lavatories, which includes proper response to lavatory (HAZMAT)	Tower Communications: Describes procedures when communicating with the air traffic control tower including procedures to follow during a radio communication failure	
Topic 8	Ramp Safety Program: Discusses the program in place to ensure ramp safety by employees working at the airport		

Appendix-3D

Training – Role Specific Customer Service, Disabilities, Ramp Area Safety

Module	Customer Service	Disability Awareness	Ramp Area Safety
Topic 1	You are an ambassador	Objective: Sensitivity training to best assist guests with disabilities	Definitions: Individuals, equipment and areas in the ramp and service areas
Topic 2	Creating Customer Service Excellence	General Practices: Etiquette, assistance and terminology	License and Permit Requirements: Training and employer responsibility
Topic 3	How customers are different at MCIA and how to help them	Disability Law	Authority to Drive Airside (ADA): Requirements for driving in restricted areas
Topic 4	Greeting Customers	Mobility Disabilities: Assisting individuals utilizing wheelchairs	Airport Citation Procedures: Responsibilities of enforcement
Topic 5	Giving directions, providing assistance	Individuals who are deaf: Methods and etiquette	Aircraft Gate Arrival/Push Back Procedures: Right of way and ground handling
Topic 6	Thank you and proper send off	Individuals with speech difficulties: Assistance	General Operating Rules: Restricted areas, proper vehicle
Topic 7	Calming down upset customers	Blind or low vision: Human guide, communications	Aircraft Fuel Servicing Rules: Maintenance and safety rules
Topic 8	Retail and Food Service	Developmental Disability: Providing assistance, respect	Fuel Spill Safety Procedures: Handling fuel spills
Topic 9	How MCIA measures good customer service	Quiz and Summary	Lavatory/Waste Material: Collection and Disposal Procedures

Appendix-4

MCIA Annual In-house Training Program

Name of Training	Operations	Security	RFFS	Engineering	Administration/ Medical Services	Airlines/Ground Handlers
Back to Basics – Airport Self Inspection	x	x	x	x		
Airside Safety and Security Awareness	x	x	x	x		x
Airside Safety Driving	x	x	x	x		x
Basic Occupational and Health Training	x			x	x	
Wildlife Assessment and Management Training	x	x		x		
Full Scale Emergency Exercise	x	x	x	x	x	x
Runway Incursion Seminar	x	x	x	x	x	x
Basic Life Support Seminar	x		x	x	x	
Security Refresher Course		x				
Defensive Driving Course	x	x	x	x		x
Fire Drill	x	x	x	x	x	x
Marksmanship Training		x				
Intel/Investigation Training		x				

Appendix-5: GMCAC Annual Training Program by Invitation (ICAO, COSCAP, APEC, CAAP, IATA, ACI, IFALPA sponsored programs)

a. Aviation Security Related Trainings and Seminars

b. Aerodrome Safety Management System

c. Airport Operations (Ramp, Cargo and Terminal Operations)

d. Rescue and Fire Fighting Services Related Trainings and Seminars

e. Engineering Accredited Seminar

Appendix-6 Training Records

It is a requirement of the program that each covered employer maintain training records to cover the period of time each employee is working at MCIA. It is preferable the records be maintained in a spreadsheet, but not required, they may be kept in your usual format (individual records, database, log, spreadsheet, etc.) and must be available for audit.

The records shall include the following data:

(a) Employee Name
(b) Role/Function
(c) Employee's Date of Hire
(d) Employee's First Date at MCIA
(e) Employee's Last Date at MCIA
(f) Date Badge Issued
(g) Type of Badge
(h) Date of Orientation Training
(i) Specific Modules: Date of training for each module
(j) Specific Modules: Signature of Trainer

Name of Company: _____

Employee Name	Date Start at MCIA	Last Date at MCIA	Role/ Function	Date Badge Issued	Type of Badge	Date of MCIA Orientation	Date of Customer Service	Date of ADA	Signature of Employee	Trainer/ Verification

4.2

SAFETY COMMUNICATION

4.2.01 SAFETY COMMUNICATION

Safety communication is an important enabler for improved safety performance. Safety lesson dissemination is a vital element of safety communication because lessons learned from past experiences, implemented within the organization reduce the chances of accident and incident recurrence and thus improve safety.

4.2.02. DISSEMINATION OF SAFETY INFORMATION

The Airport Safety Manager – Safety Management System Unit is the focal point for safety related information, hazard reports, risk assessments, safety analysis, investigation reports, audit reports, minutes of meeting, conference proceedings, and others. From all this information, the most relevant safety messages for dissemination will be identified. Messages will be classified as urgent (before the next flight), directive, for background understanding, or seasonal. Most staff does not have enough time to read all this information, and the salient points will be incorporated into easily understood safety messages. Several considerations would dictate the message classification and dissemination for example:

a. criticality of the information

b. the target audience

c. best means for disseminating the information (e.g. briefings, directed letters, newsletters, organizations intranet, videos and posters)

d. timing strategy to minimize the impact of the message (ex. Rainy season briefings generate little interest during summer

e. contents (e.g. how much background information should be given versus the core message)

f. wording (e.g. most appropriate vocabulary, style and tone)

4.2.03 SAFETY CRITICAL INFORMATION

Urgent safety information is disseminated using the following means:

a. direct message (oral or written) to responsible managers

b. direct briefings (e.g. for controllers in a specific unit)

c. shift change over briefings

d. direct mail (posts, facsimile or e-mail)

4.2.04. NICE – TO – KNOW INFORMATION

This material includes accident/incident reports, safety studies, aviation journals, proceedings of conferences and symposia, manufacturers reports, training videos, etc. Increasingly, this information is available electronically. Regardless of the format of the information, it will be made available to staff and management through.

a. an internal circulation system for critical/important information

b. a safety library

c. summaries notifying staff of the receipt of each information

d. directed distribution to selected managers

4.2.05. REPORTING TO MANAGEMENT

All reports to the management should conform to the points below unless unavoidable.

a. what is the problem?

b. how could I affect the organization?

c. how likely is it to happen?

d. what is the cost if it does happen?

e. how can the hazard be eliminated?

f. how can the risk be reduced?

g. how much will it cost to fix?

h. what are the downsides of such action?

4.2.06. OBJECTIVE OF SAFETY PROMOTIONS

a. An ongoing program of safety promotion will ensure that employees benefit from safety lessons learned and continue to understand the organizations SMS. Safety promotion is link closely with safety training and the dissemination of safety information. It refers to those activities which the organization carries out in order to ensure that the staff understand why safety management procedures are being introduced, what safety management means, why particular safety actions are being taken, etc. Safety promotion provides the mechanism through which lessons learned from safety occurrence investigation and other related activities are made available to all affected personnel. It also provides a means of encouraging the development of a positive safety culture and ensuring that, once established, the safety culture will remain.

b. It is important that personnel see evidence of the commitment of management to safety. The attitudes and actions of management must be a significant factor in the promotion of safe work practices and the development of a positive safety culture.

c. c. Safety promotion plays an important role for the safety awareness, and it is the channel by which safety issues are communicated within the organization. These issues will be addressed through staff training programs or less formal mechanisms.

d. d. In order to propose solutions to identified hazards, personnel must be aware of the hazards identifications that have already been implemented. The safety promotion activities and training program address the rationale behind the introduction of new procedures. With the lessons learned, consideration would be given to wider dissemination of the information.

4.2.07. PROMOTION METHOD

a. If a safety message is to be learned and retained, the recipient has to be positively motivated.

b. Safety topic would be selected for promotional campaigns based on their potential to prevent and reduce losses. Selection would therefore be based on the experience of past accidents or near misses, matter identified by hazard analysis and observations from routine safety audits. In addition, employees would be encouraged to submit suggestions for promotional campaigns.

c. The safety promotion program will be based on several modern communication methods

APPENDIX-7

ACCIDENT INVESTIGATION REPORT

Report No. ____

Name of Company: _____
Address: _____
Date: _____

1. Name of Injured: _____ I.D. # _____
2. Sex: ( ) M ( ) F Age: _____ Date of Accident: _____
3. Time of Accident: _____ Day of Accident: _____
4. Employee's Job Title: _____
5. Length of experience on job: _____ years _____ months
6. Address or location where the accident occurred: _____
7. Nature of injury, injury type, and part of the body affected: _____
8. Describe the accident and how it occurred: _____
9. Cause of the accident: _____
10. Was personal protective equipment required? ( ) Yes ( ) No

    Was it being used? ( ) Yes ( ) No . If "NO", explain.
    _____
    _____

    Was it being used as trained by supervisor or designated trainer? ( ) Yes ( ) No
    If "NO", explain.
    _____
    _____
11. Witnesses: _____ _____
12. Safety training provided to the injured? ( ) Yes ( ) No . If "NO", explain.
    _____
    _____
13. Interim corrective actions taken to prevent recurrence:
    _____
14. Permanent corrective action recommended to prevent recurrence:
    _____
15. Status and follow-up action taken by safety coordinator:
    _____

Prepared by: Noted by:

APPENDIX-8 **Instructions for Completing the Accident Investigation Report**

An accident investigation is not designed to find fault or place blame but it is an analysis of the accident to determine causes that can be controlled or eliminated.

(Item 1 – 6) Identification: This section is self-explanatory

(Item 7) Nature of Injury: Describe the injury, e.g. strain, sprain, cut, burn, fracture

Injury Type:

First Aid: Injury resulted in minor injury / treated on premises
Medical: Injury treated off premises by physician
Lost Time: Injured missed more than one day of work
No Injury: No injury, near miss type of accident
Part of the body: part of the body directly affected, e.g., foot, arm, hand, head

(Item 8) Describe the accident: Describe the accident, including exactly what happened, and where and how it happened. Describe the equipment or materials involved.

(Item 9) Cause of the accident: describe all conditions or acts which contributed to the accident, i.e.:

(a) Unsafe condition: spills, grease on the floor, poor housekeeping or other physical conditions;

(b) Unsafe acts: unsafe work practices such as failure to warn, failure to use required personal protective equipment.

(Item 10) Personal protective equipment: Self-explanatory

(Item 11) Witnesses: List names, address and phone numbers

(Item 12) Safety training provided: Was any safety training provided to the injured related to the work activity being performed?

(Item 13) Interim corrective action: Measures taken by supervisor to prevent recurrence of incident, i.e., barricading accident area, posting warning signs, shutting down operations

(Item 14) Self-explanatory

(Item 15) Follow-up: Once the investigation is complete, the safety coordinator shall review and follow-up the investigation to ensure that corrective actions recommended by the safety committee and approved by the employer are taken, and control measures have been implemented.

THE END