AIR NAVIGATION SERVICES SAFETY UNIT

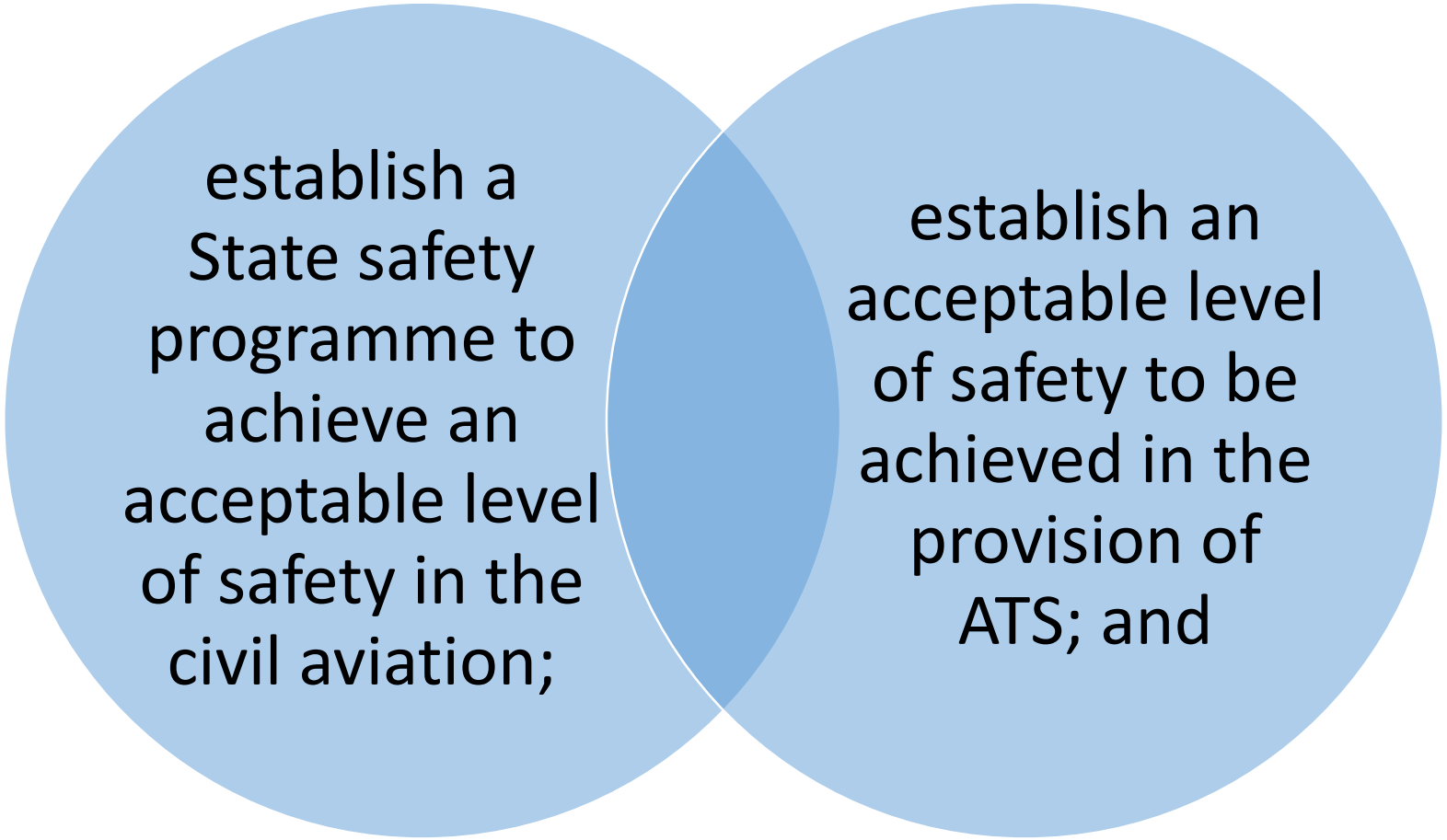
The Department of Air Traffic Services and Air Navigation Services Safety

TTCAA
Safer Skies

14-Nov-17

Presented by: Ian R Gomez
Unit Chief ANS Safety

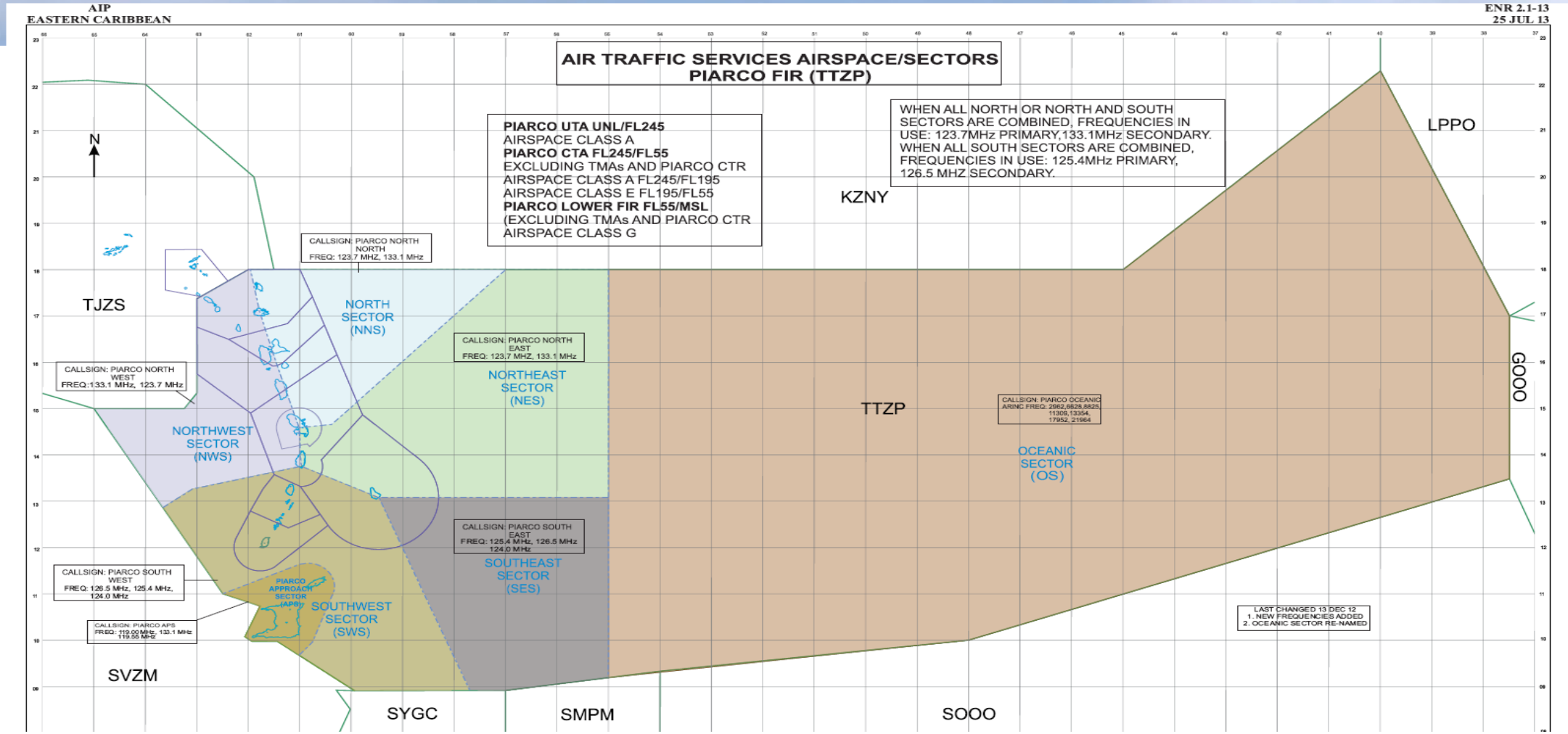
The Director General shall



TTCAA Exclusively Provides Air Navigation Services

- aerodrome control services at international aerodromes
- approach control services
- area control services
- flight information services
- air navigation facilities
- aereonautical information services

PIARCO FIR/CTA/UTA



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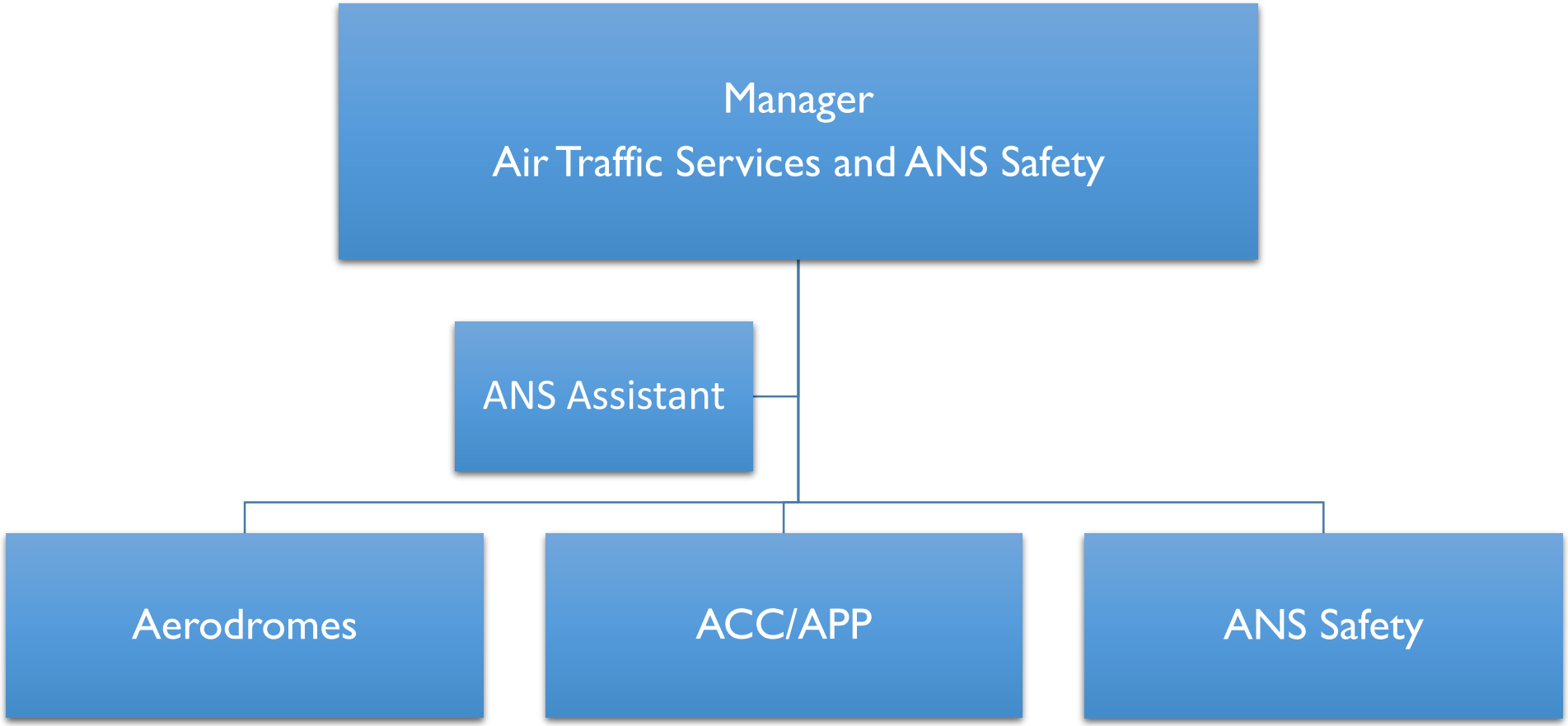
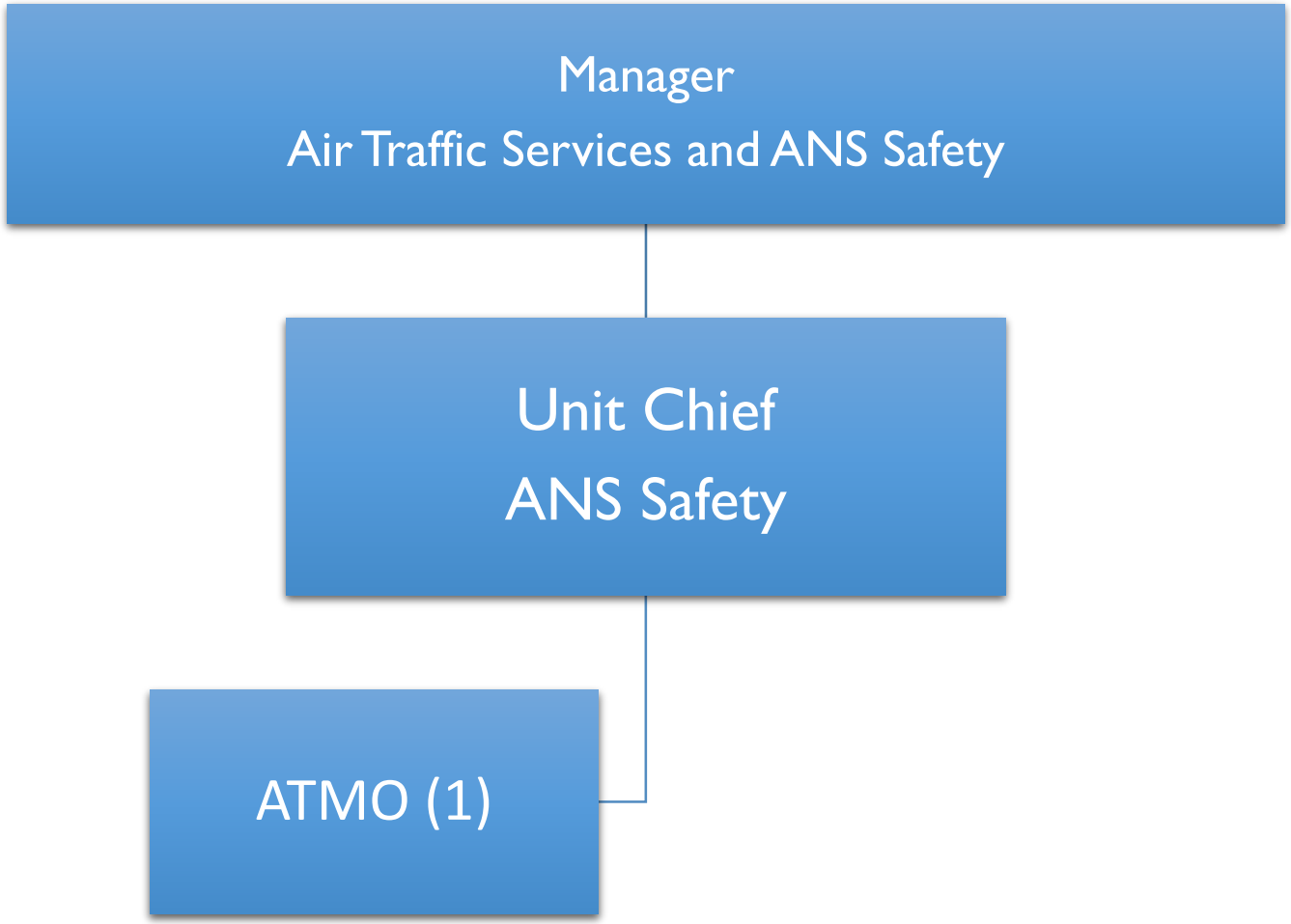
AIR TRAFFIC SERVICES
AIR NAVIGATION SERVICES SAFETY



AIR NAVIGATION SERVICES SAFETY



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AIR NAVIGATION SERVICES SAFETY
ANSSU - Overview

- Formation of ANS Safety Unit (ANSSU)
- Components of a Safety Management System (SMS)
- Strategic Activities of the ANSSU
- Conclusion

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AIR NAVIGATION SERVICES SAFETY
ANSSU - Objectives

Need for establishment of a Safety Management System

To ensure that the possibility of injury to persons and or property damage is reduced to, or maintained at or below acceptable level via a continuous process of **Hazard Identification** and **Safety Risk Management**.

An effective SMS Programme needs to be established throughout the ANS:

ATM	CNS	AIM

Guided by: ICAO POS Declaration, Annex 19 & Doc 9859, TTCAR 15 Part II

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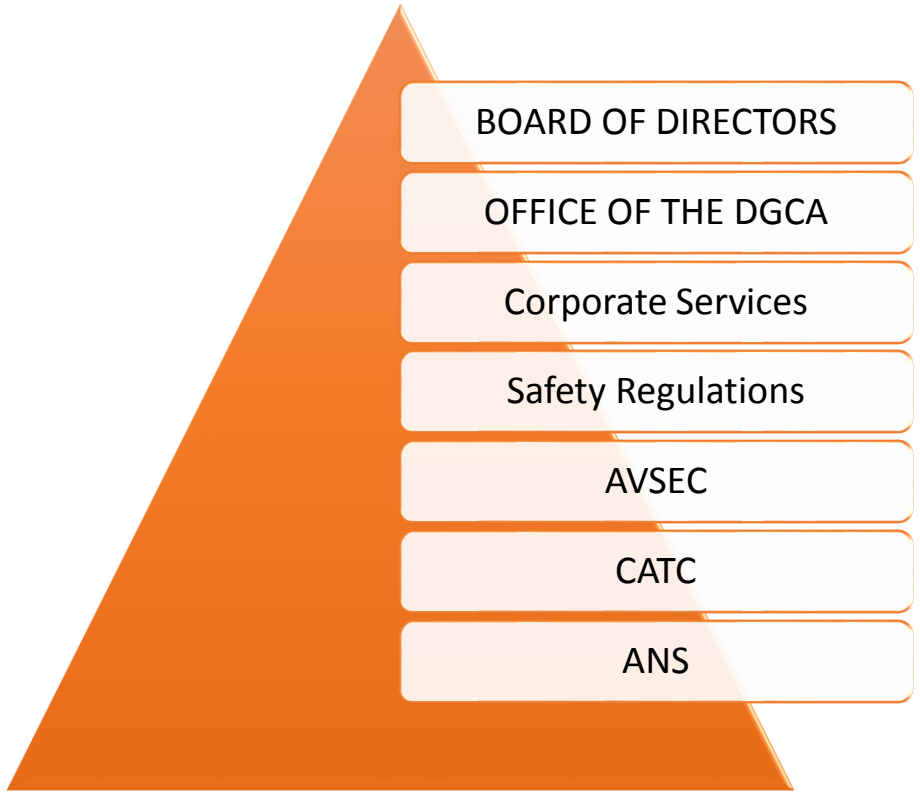
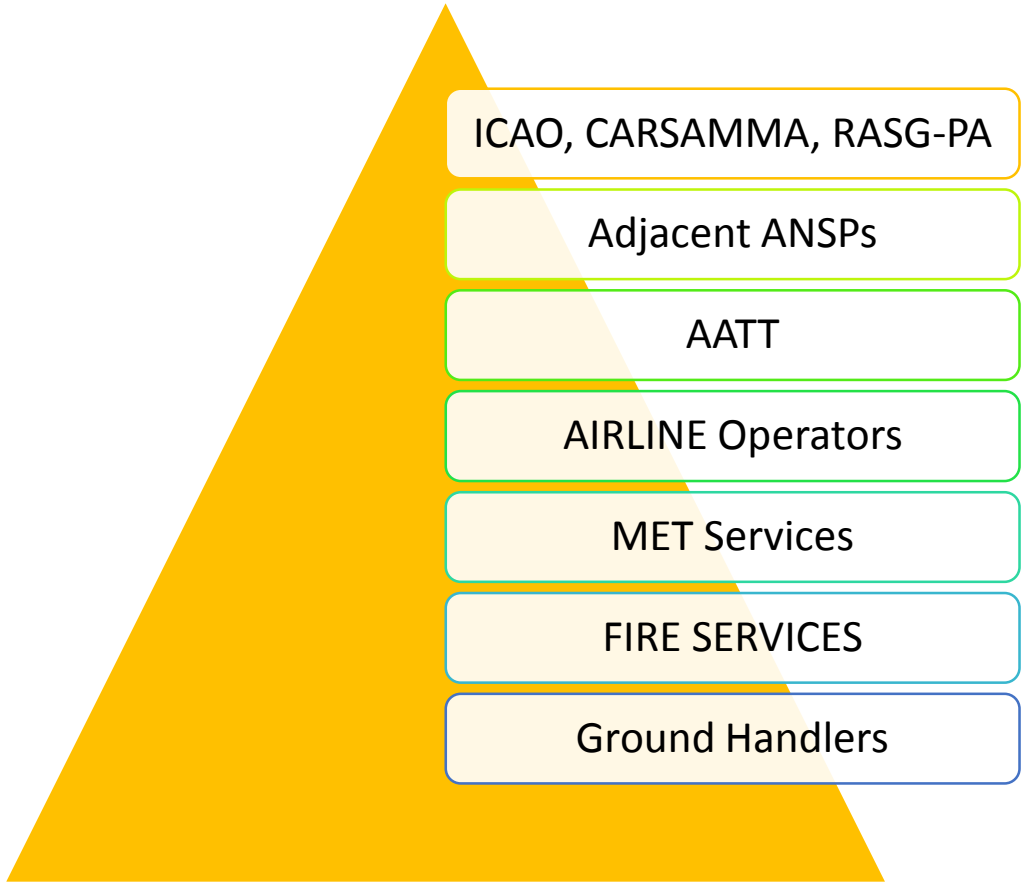
AIR NAVIGATION SERVICES SAFETY
Stakeholders

Internal



External



AIR NAVIGATION SERVICES SAFETY
Components of an SMS

Safety Policy and Objectives

- Commitment, Accountability, Objectivity

Safety Risk Management

- Continuous HIRA

Safety Assurance

- Continuous Safety Performance Monitoring & Measurement, Change Management

Safety Promotion

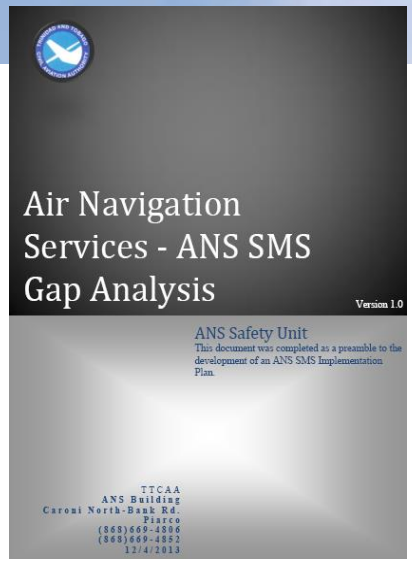
- Creating a Learning and Safety Awareness Culture

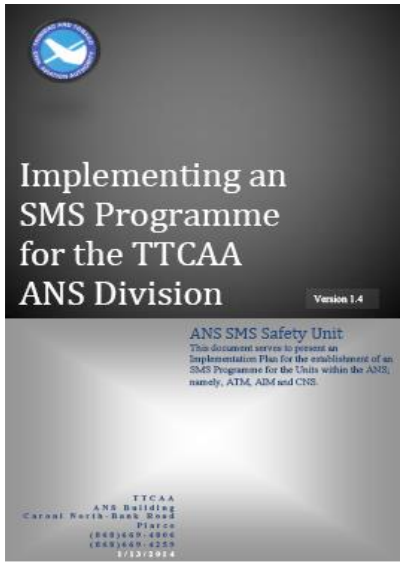
AIR NAVIGATION SERVICES SAFETY
Milestones

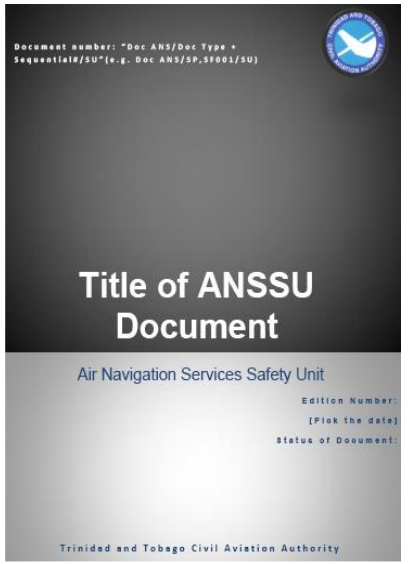
Establishment of Project Units for specific tasks

Production of Safety Documentation:

- Draft Implementation Plan
- Draft ANS Safety Policy Statement







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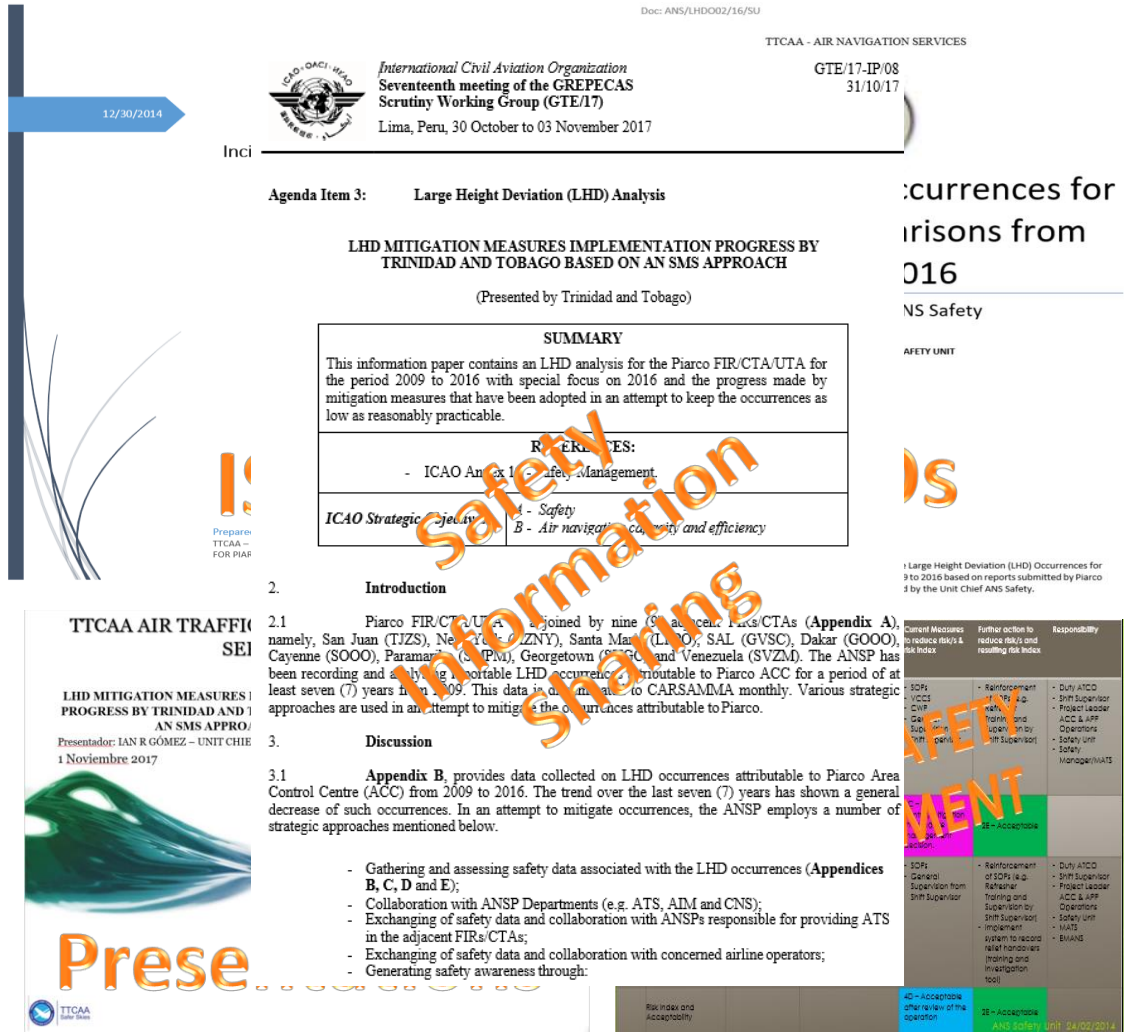
AIR NAVIGATION SERVICES SAFETY
Milestones

Production of Safety Documentation:

- Incident Safety Reports (ISRs) - 5
- Large Height Deviation Reports - 42
- Safety Presentations - 11
- Basic Safety Assessments - 4

Safety Briefings (15+)

Safety Information Sharing (Internal and External)



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AIR NAVIGATION SERVICES SAFETY
Milestones

Production of Quality Assurance Documentation:

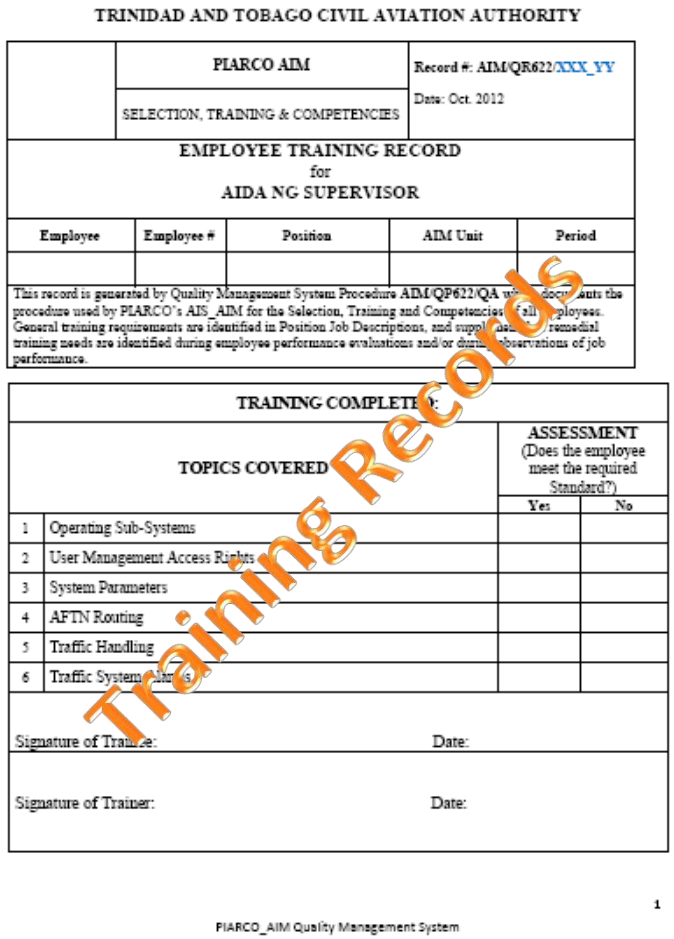
- CNS Quality Assurance Reports
- AIM Training Records

ECAR TELEPHONE SYSTEM
ROUTINE CHECK SHEET

WEEK ENDING: .....

ISLAND/SYSTEM/CIRCUIT	TELEPHONE NO.	MON	TUES	WED	THUR	FRI
SAN JUAN	1845 (SECTOR 2)					
SAN JUAN	1846 (SECTOR 8)					
MIAMI RADIO	1861					
BARBADOS	6001 TBPB					
GRENADA	6101 TGPY					
ST. VINCENT	6201 TVSV					
ST. LUCIA	6301 TLPL					
MARTINIQUE	6401 TFFF					
DOMINICA	6501 TDPD					
ANTIGUA	7001 TAPA					
GUADELOUPE	7201 TFFR					
ST. KITTS	7301 TKPK					
NEW YORK	1848					
CAYENNE HOTLINE	669-0619					
PARAMARIBO HOTLINE	669-3779					
A.N.R. ROBINSON HOTLINE	669-5242					
CAYENNE REDDIG						
PARAMARIBO REDDIG						
MAIQUETIA REDDIG						
GEORGETOWN REDDIG						
MANUAS REDDIG	[illegible]					
PIARCO REDDIG	9101/9102					
SANTA MARIA	011-351-296-886-046					
NORTH SECTOR	669-6181					
SOUTH SECTOR	669-61[illegible]					
A3 (123.7 MHz)						
A4 (126.5 MHz)						
A7 (125.4 MHz)						
A8 (133.1 MHz)						
APP (119.0 MHz)						
INTLS/TIME: TELECOMS						
INTLS/ TIME: ATC (OC)						

Communications Checklist



TRINIDAD AND TOBAGO CIVIL AVIATION AUTHORITY

	PIARCO AIM	Record #: AIM/QR622/XXX_YY
	SELECTION, TRADING & COMPETENCIES	Date: Oct. 2012

EMPLOYEE TRAINING RECORD
for
AIDA NG SUPERVISOR

Employee	Employee #	Position	AIM Unit	Period

This record is generated by Quality Management System Procedure AIM/QP622/QA [illegible] documents the procedure used by PIARCO's AIS_AIM for the Selection, Training and Competencies of all employees. General training requirements are identified in Position Job Descriptions, and supplemental/remedial training needs are identified during employee performance evaluations and/or during observations of job performance.

TRAINING COMPLETED:

	TOPICS COVERED	ASSESSMENT (Does the employee meet the required Standard?) Yes	No
1	Operating Sub-Systems		
2	User Management Access Rights		
3	System Parameters		
4	AFTN Routing		
5	Traffic Handling		
6	Traffic System [illegible]		

Signature of Trainee: Date:

Signature of Trainer: Date:

1

PIARCO_AIM Quality Management System

Training Records

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AIR NAVIGATION SERVICES SAFETY
Current Responsibilities

- Safety Data Collection and Assessments
- Safety Reports
- Safety Briefings and De-Briefings
- Drafting the SMS Manual
- Collaboration with Internal and External Stakeholders
- ANS Certification Process

AIR NAVIGATION SERVICES SAFETY
LHD Safety Data Gathering

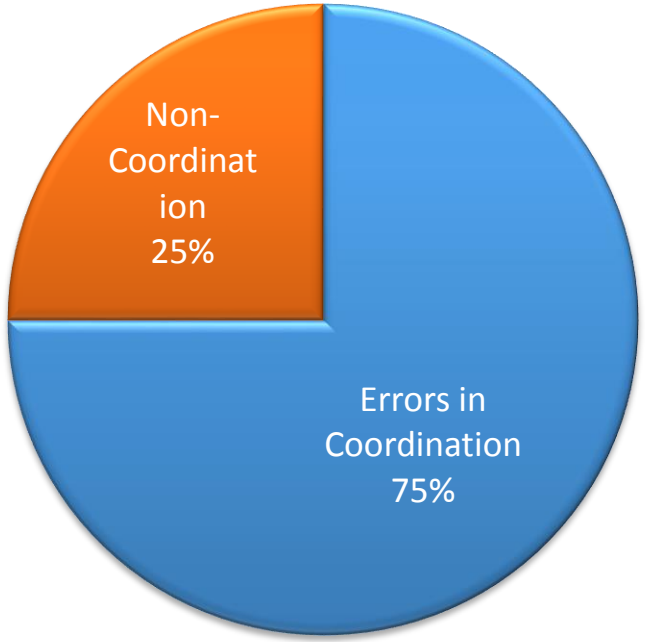
LHD Occurrences Attributable to Piarco ACC for the Years 2009 to October 2017

MONTH	YEAR									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
JANUARY	0	2	2	1	3	1	1	0	0	10
FEBRUARY	4	0	0	0	0	1	0	2	2	9
MARCH	0	2	2	2	2	1	0	0	3	12
APRIL	0	2	3	1	2	0	1	1	0	10
MAY	1	0	2	1	1	1	0	0	1	7
JUNE	1	1	2	0	2	0	0	1	0	7
JULY	0	1	0	1	0	1	0	0	1	4
AUGUST	1	1	3	1	3	0	1	1	0	11
SEPTEMBER	0	1	1	1	2	0	1	0	1	7
OCTOBER	3	3	2	0	0	1	0	0	0	9
NOVEMBER	2	1	2	1	0	0	0	1		7
DECEMBER	2	3	3	4	3	2	0	2		19
TOTAL	14	17	22	13	18	8	4	8	8	112

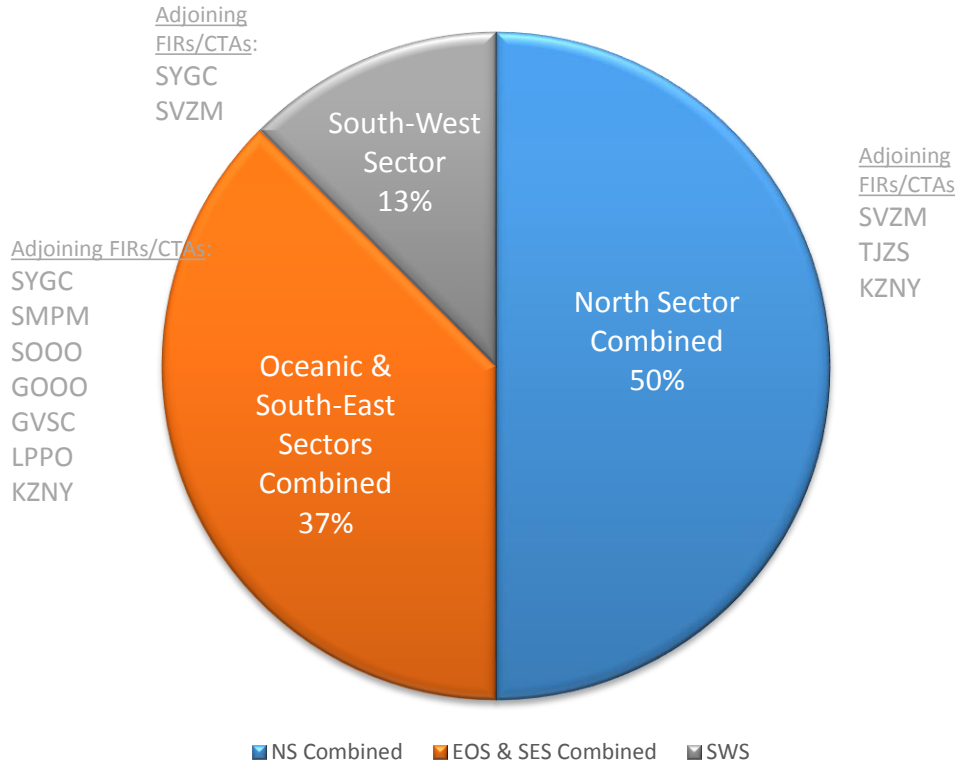
AIR NAVIGATION SERVICES SAFETY
LHD Safety Data Analysis

Assessment of LHD Occurrences Attributable to Piarco ACC for 2016

Type and percentage of LHD Occurrences for 2016 Attributable to Piarco ACC



Percentage of LHD Occurrences in Piarco's Operational Sectors for 2016



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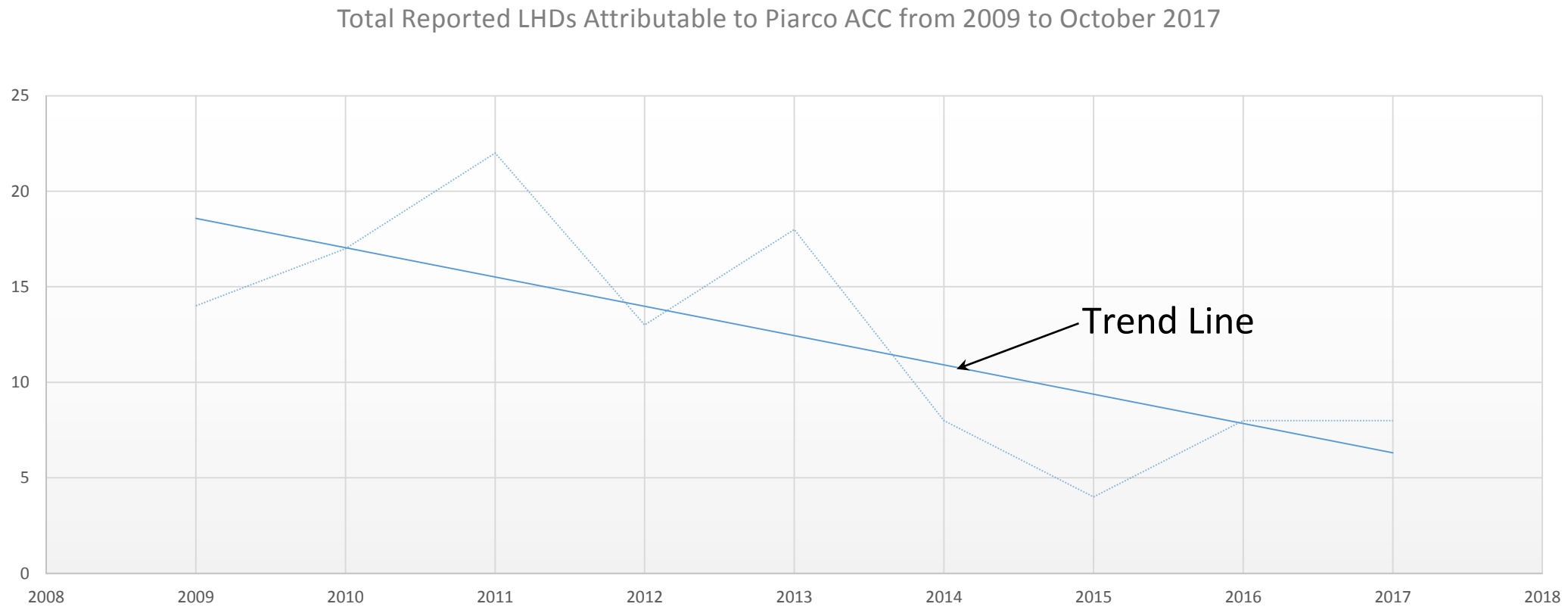
AIR NAVIGATION SERVICES SAFETY
LHD Safety Data Analysis

LHD Occurrences Attributable to Piarco ACC for the Years 2009 to October 2017



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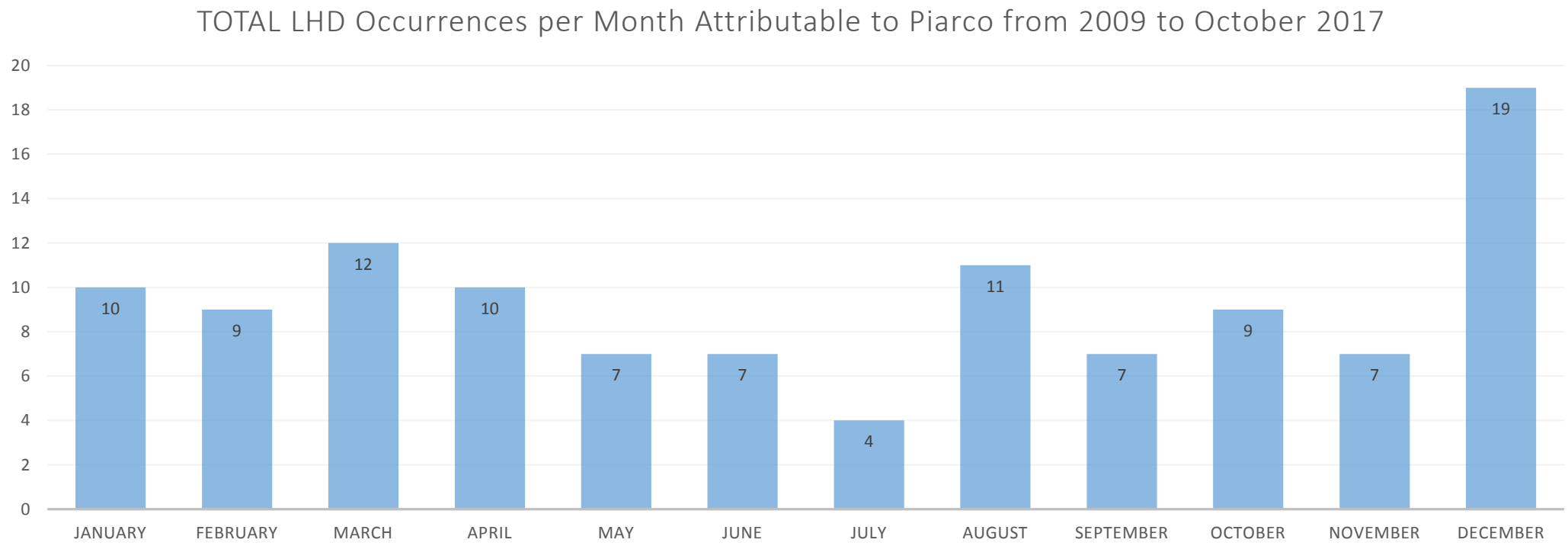
AIR NAVIGATION SERVICES SAFETY
LHD Safety Data Analysis

LHD Occurrences per Month Attributable to Piarco ACC for the Years 2009 to October 2017



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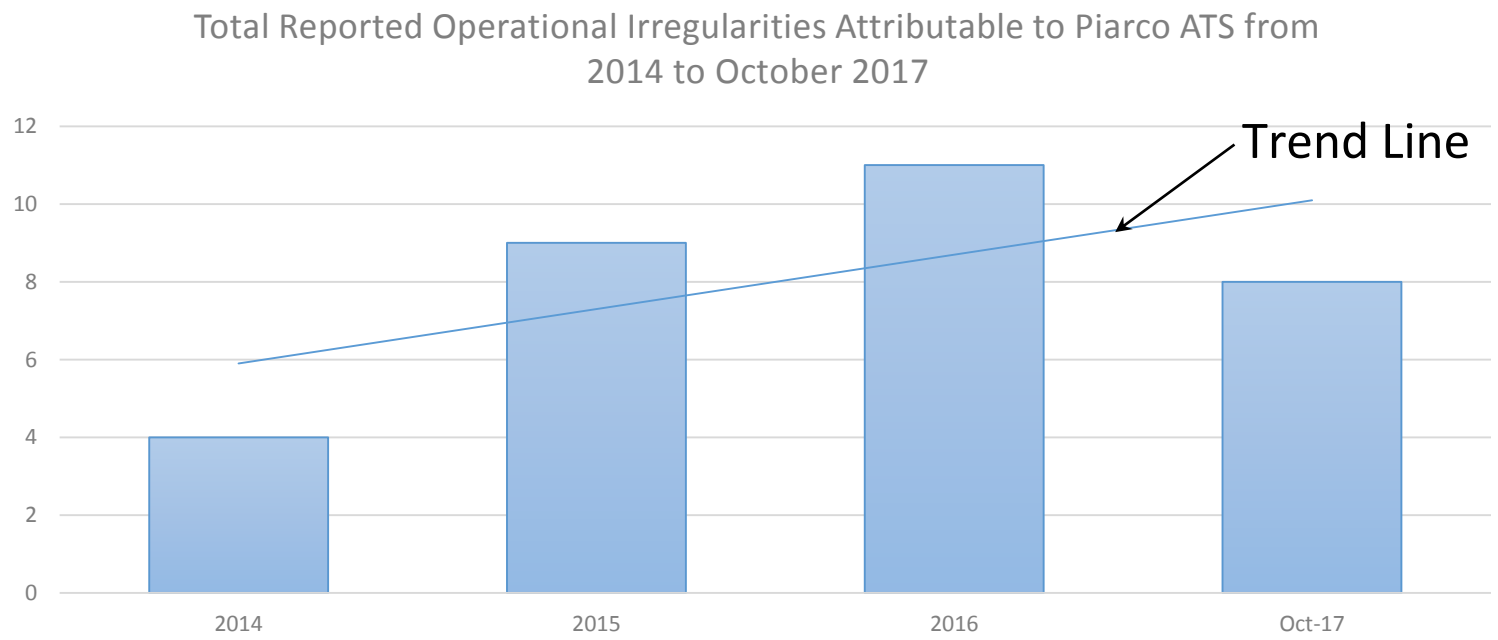
AIR NAVIGATION SERVICES SAFETY
Operational Irregularities Data Gathering

Operational Irregularities Attributable to Piarco ATS for the Years 2014 to October 2017

MONTH	YEAR				
	2014	2015	2016	2017	TOTAL
JANUARY	0	1	0	1	2
FEBRUARY	0	1	1	1	3
MARCH	1	0	0	2	3
APRIL	0	1	0	1	2
MAY	2	1	1	0	4
JUNE	0	1	3	0	4
JULY	0	2	0	1	3
AUGUST	0	2	2	1	5
SEPTEMBER	0	0	2	1	3
OCTOBER	1	0	2	0	3
NOVEMBER	0	0	0		0
DECEMBER	0	0	0		0
TOTAL	4	9	11	8	32

AIR NAVIGATION SERVICES SAFETY
Safety Data Analysis

Operational Irregularities Attributable to Piarco ATS for the Years 2014 to October 2017



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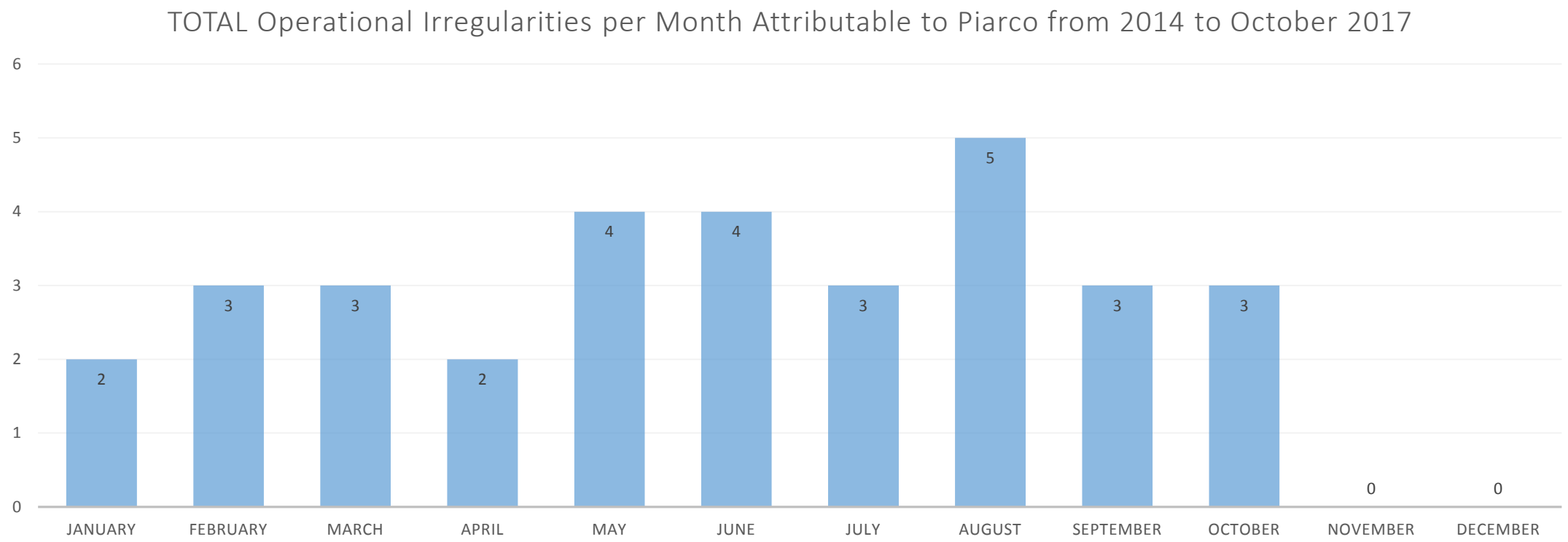
AIR NAVIGATION SERVICES SAFETY
Safety Data Analysis

Operational Irregularities per Month Attributable to Piarco ATS for the Years 2014 to October 2017



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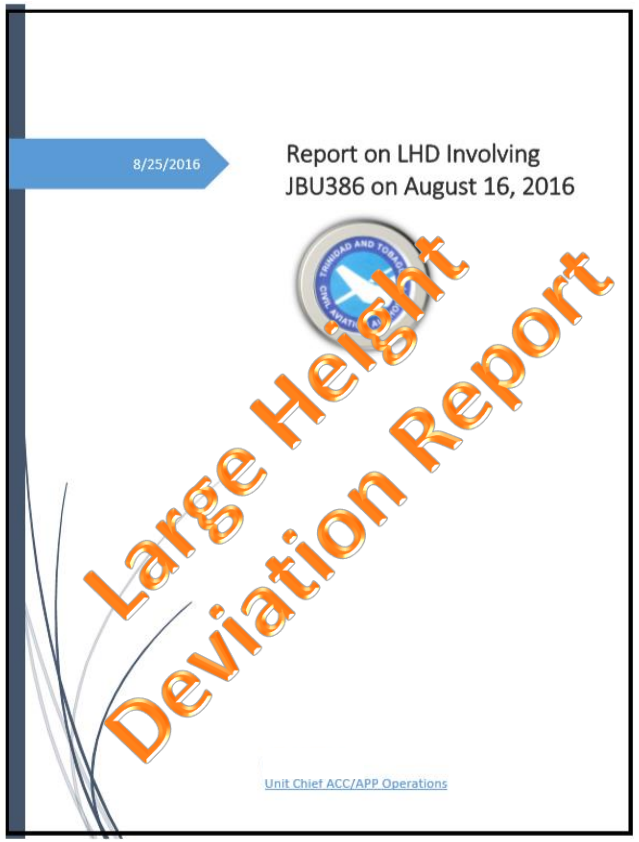
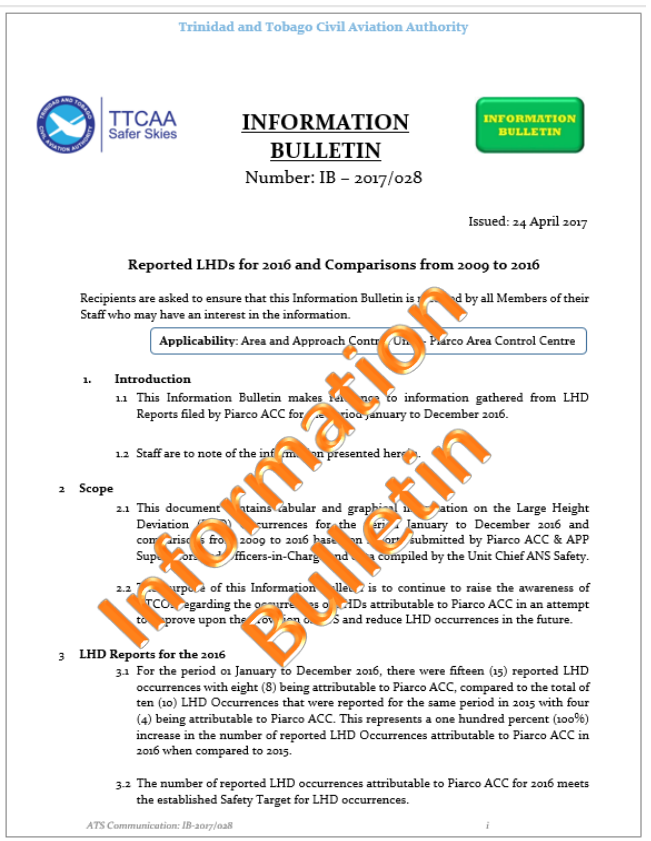
AIR NAVIGATION SERVICES SAFETY
Sharing of Safety Information





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ANSP Air Navigation Service Provider

AIR NAVIGATION SERVICES SAFETY
LHD Mitigation Measures

Currently Employed by the ANSP

- Gathering and assessing safety data associated with Operational Occurrences,
- Collaboration with ANSP Departments (e.g. ATS, AIM and CNS),
- Exchanging of safety data and collaboration with ANSPs responsible for providing ATS in the adjacent FIRs/CTAs,
- Exchanging of safety data and collaboration with concerned airline operators,
- Generating safety awareness through:
  - Remedial actions inclusive of safety de-briefings performed with the concerned ANS Staff, and
  - Dissemination of Information Bulletins related to Operational Occurrences to ANS Staff.

AIR NAVIGATION SERVICES SAFETY
LHD Mitigation Measures

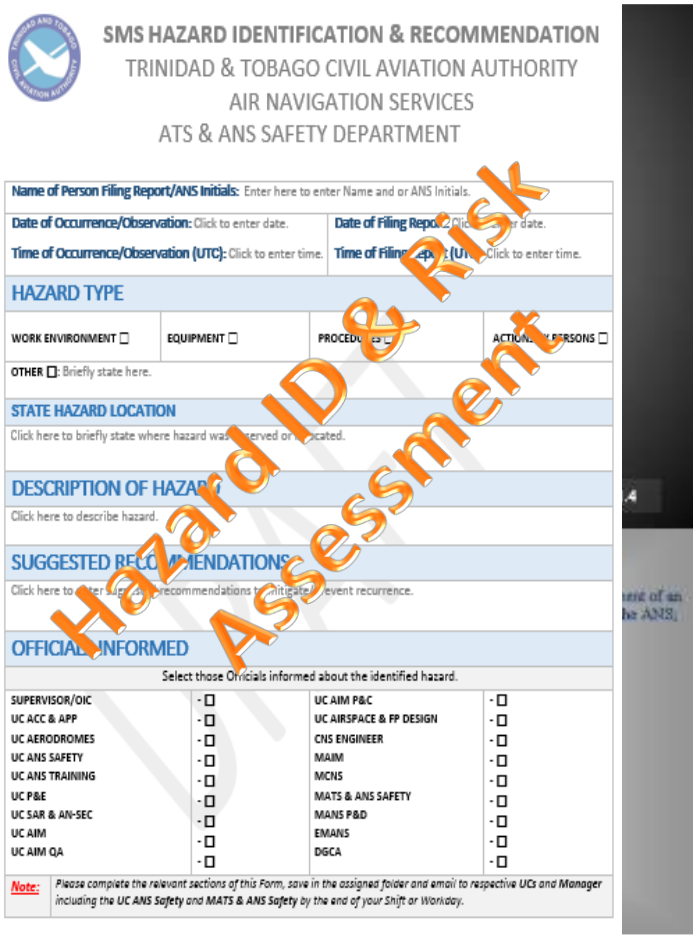
Future Considerations by the ANSP

- Implementing a Normal Operations System Survey (NOSS) Programme;
- Implementing a Voluntary Reporting Programme;
- Continuance in addressing “Threat and Error” issues associated with “practical drift” and the coordination of flights between Piarco ACC and Adjacent ANSPs;
- Written and Oral Knowledge Verification Tests (KVTs) as part of ATS Proficiency Checks. ATIs and ATEs to be subjected to biannual Proficiency Checks with an higher pass mark required;
- Continuance in reinforcing the importance of adhering to SOPs;

AIR NAVIGATION SERVICES SAFETY
Future Objectives

Targeted Objectives:
- Production of an SMS Manual

Establishment of:
- Learning Culture
- Just/Fair Culture
- Safety Culture
- Professional Culture



SMS HAZARD IDENTIFICATION & RECOMMENDATION
TRINIDAD & TOBAGO CIVIL AVIATION AUTHORITY
AIR NAVIGATION SERVICES
ATS & ANS SAFETY DEPARTMENT

Hazard ID & Risk Assessment

Name of Person Filing Report/ANS Initials: Enter here to enter Name and or ANS Initials.

Date of Occurrence/Observation: Click to enter date. **Date of Filing Repo** Click to enter date.

Time of Occurrence/Observation (UTC): Click to enter time. **Time of Filing Report (UTC):** Click to enter time.

HAZARD TYPE

WORK ENVIRONMENT ☐ EQUIPMENT ☐ PROCEDURES ☐ ACTIONS OF PERSONS ☐

OTHER ☐: Briefly state here.

STATE HAZARD LOCATION

Click here to briefly state where hazard was observed or located.

DESCRIPTION OF HAZARD

Click here to describe hazard.

SUGGESTED RECOMMENDATIONS

Click here to enter Suggested recommendations to mitigate/prevent recurrence.

OFFICIALS INFORMED

Select those Officials informed about the identified hazard.

SUPERVISOR/OIC	☐	UC AIM P&C	☐
UC ACC & APP	☐	UC AIRSPACE & FP DESIGN	☐
UC AERODROMES	☐	CNS ENGINEER	☐
UC ANS SAFETY	☐	MAIM	☐
UC ANS TRAINING	☐	MCNS	☐
UC P&E	☐	MATS & ANS SAFETY	☐
UC SAR & AN-SEC	☐	MANS P&D	☐
UC AIM	☐	EMANS	☐
UC AIM QA	☐	DGCA	☐

Note: *Please complete the relevant sections of this Form, save in the assigned folder and email to respective UCs and Manager including the UC ANS Safety and MATS & ANS Safety by the end of your Shift or Workday.*

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AIR NAVIGATION SERVICES SAFETY
Runway Safety Team

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Air Navigation
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14-Nov-17

AIR NAVIGATION SERVICES SAFETY
Runway Safety Team Stakeholders

AIR NAVIGATION SERVICES SAFETY

THANKS FOR YOUR ATTENTION