



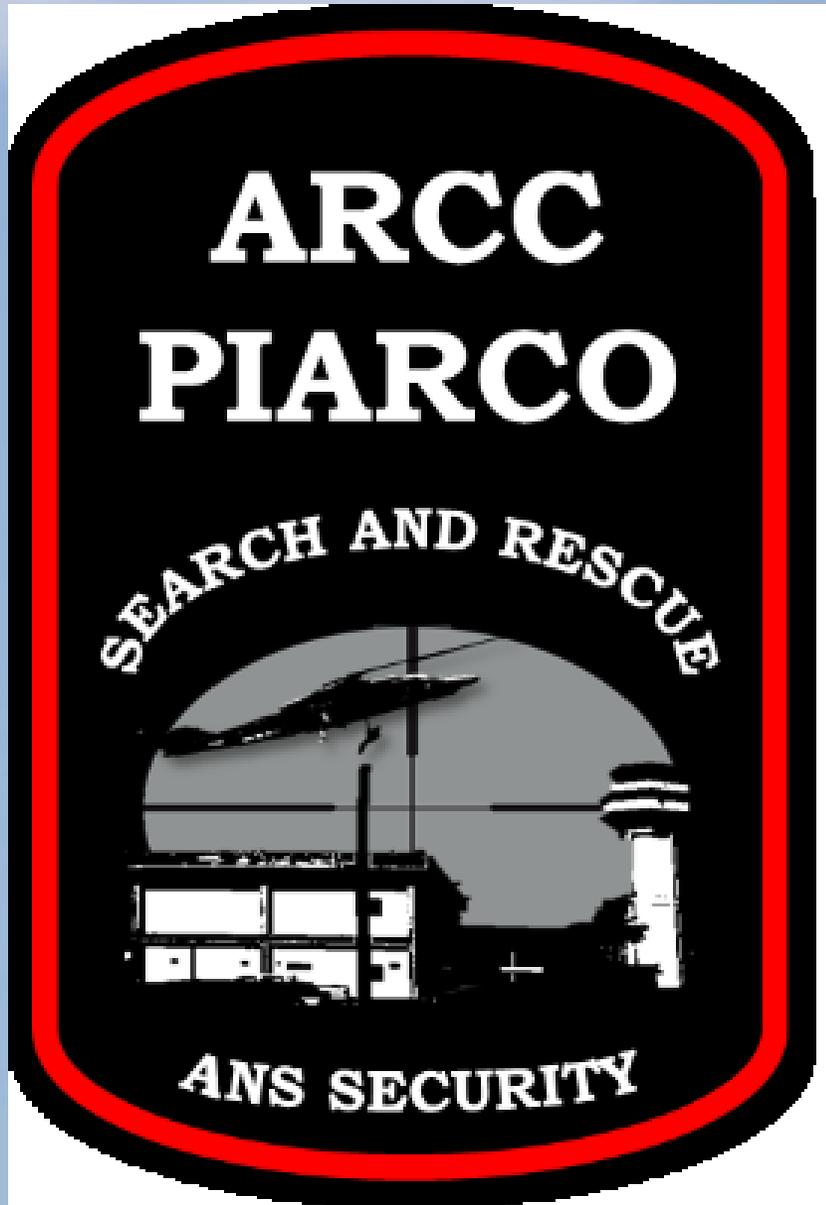
# TRINIDAD AND TOBAGO

## AERONAUTICAL SEARCH AND RESCUE UPDATE

click to snap to video size



TTCAA  
Safer Skies



**AERONAUTICAL  
SEARCH & RESCUE  
AND  
AIR NAVIGATION  
SECURITY  
UNIT**

International Standards  
and Recommended Practices



Annex 12  
to the Convention on  
International Civil Aviation

# Search and Rescue

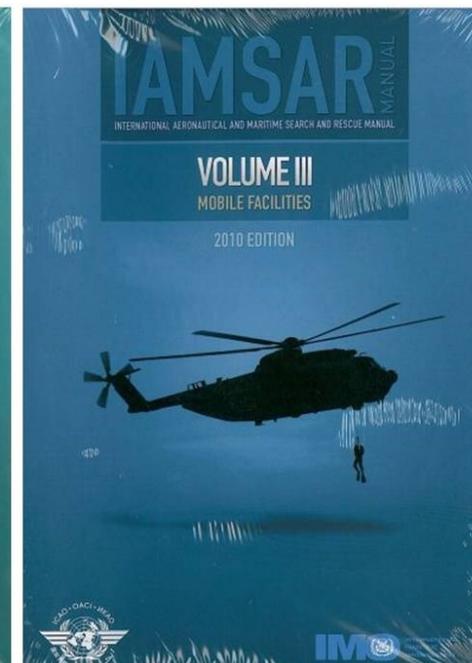
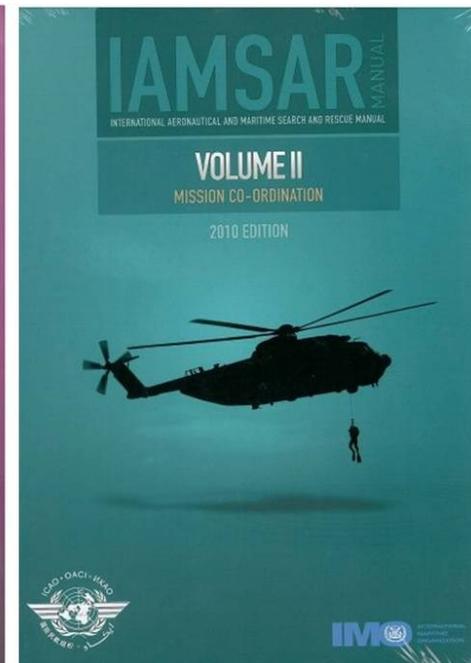
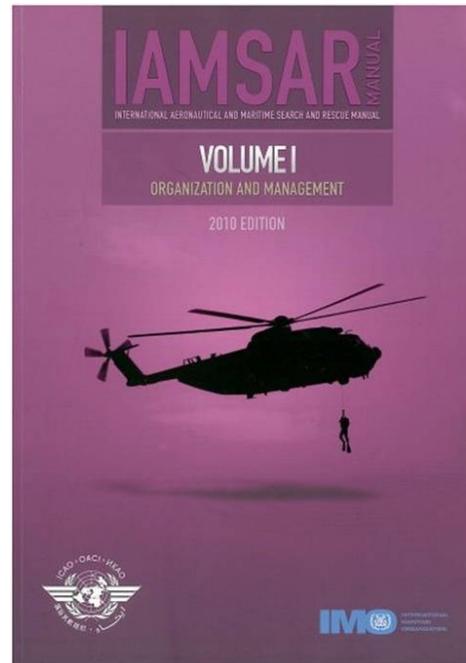
This edition incorporates all amendments adopted by the Council prior to 24 February 2004 and supersedes, on 25 November 2004, all previous editions of Annex 12.

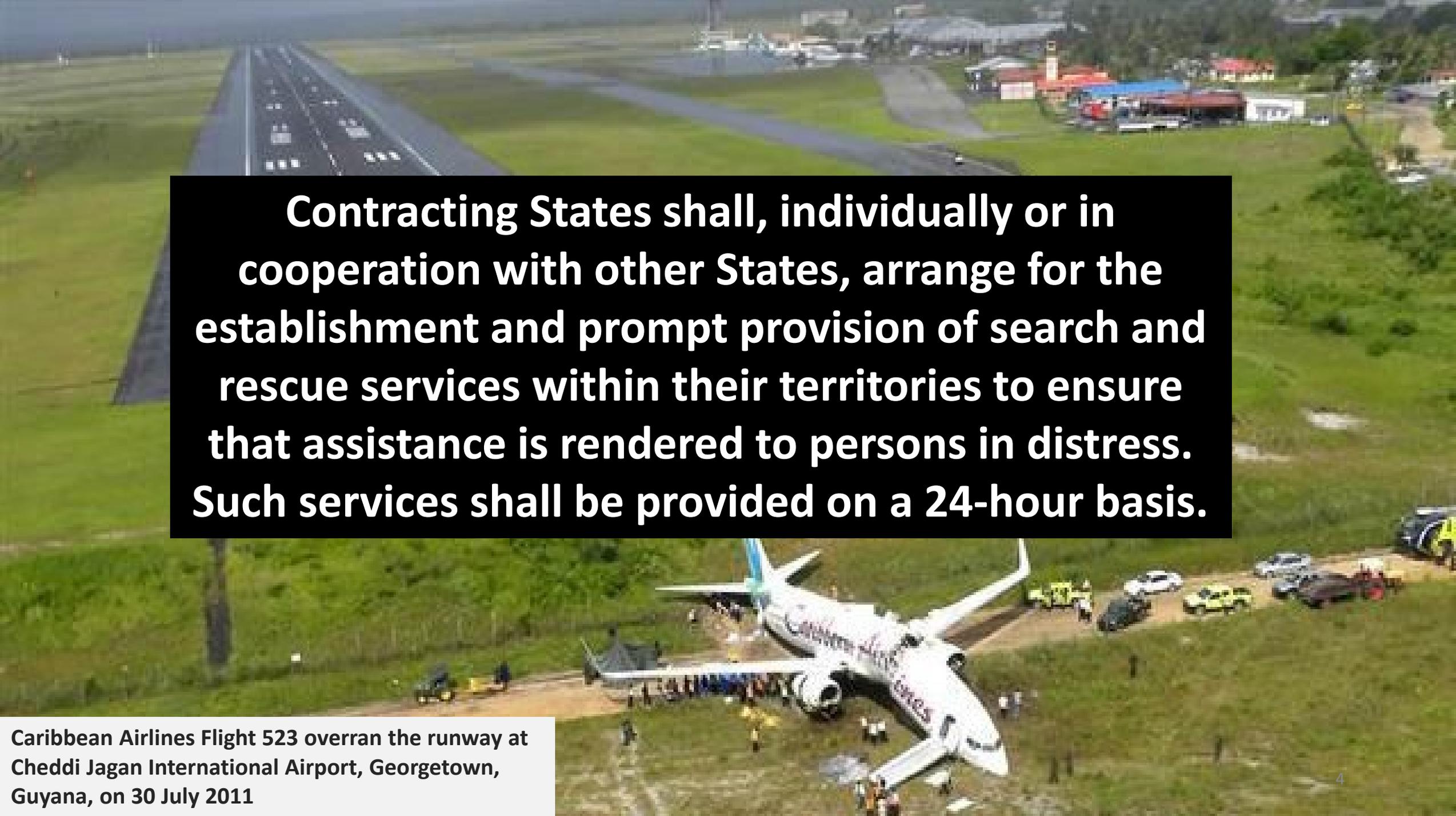
For information regarding the applicability of the Standards and Recommended Practices, see Foreword.

Eighth Edition  
July 2004

International Civil Aviation Organization

# SEARCH AND RESCUE

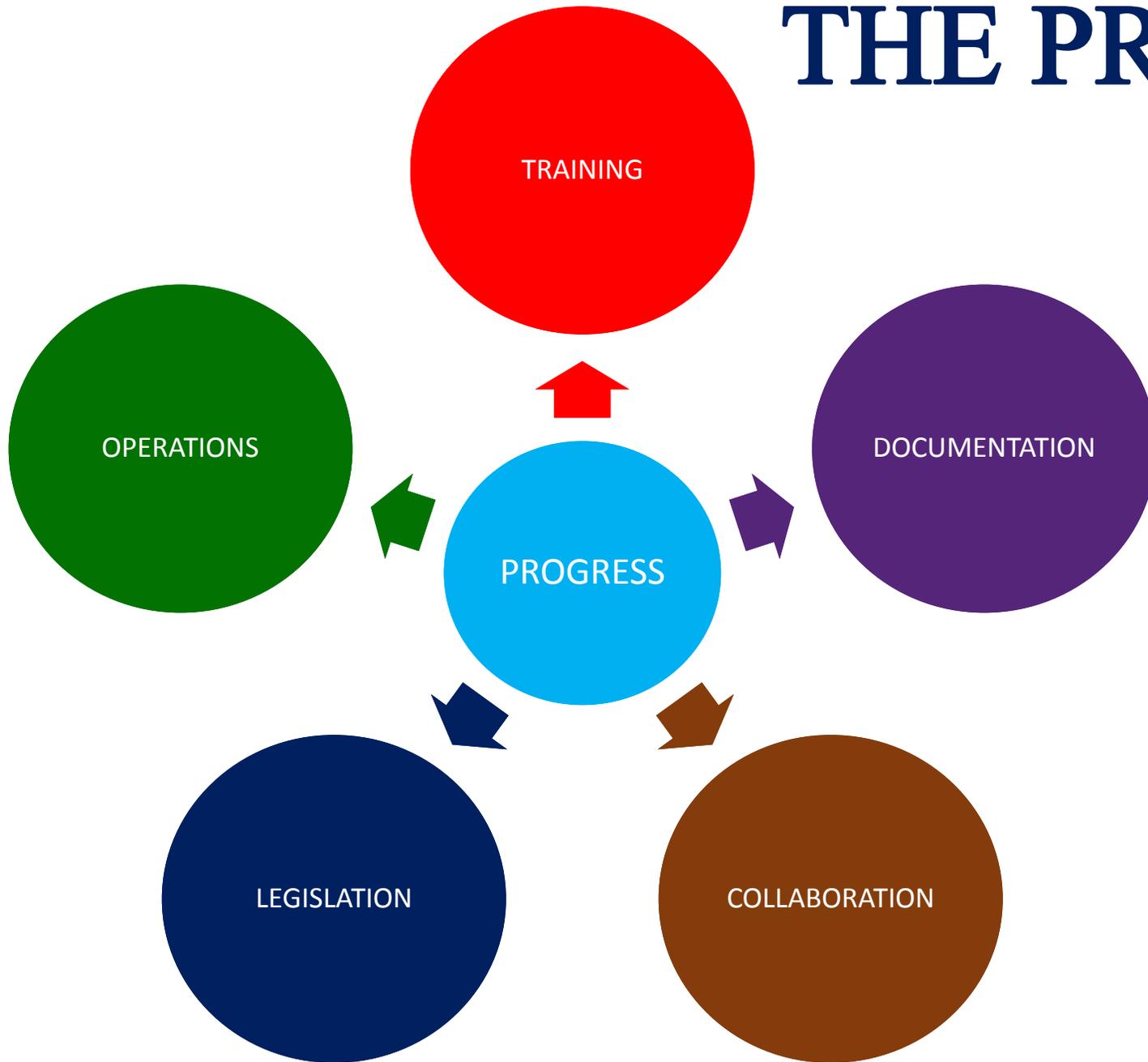


An aerial photograph of an airport. A long, straight runway and taxiway run from the top left towards the center. To the right of the runway, there are several buildings, including a terminal with a red roof and a smaller building with a blue roof. In the foreground, a white Caribbean Airlines aircraft is parked on a grassy area, tilted at an angle. Several ground support vehicles and personnel are visible around the aircraft. The background shows a green landscape with some trees and a small town or village.

**Contracting States shall, individually or in cooperation with other States, arrange for the establishment and prompt provision of search and rescue services within their territories to ensure that assistance is rendered to persons in distress. Such services shall be provided on a 24-hour basis.**

**Caribbean Airlines Flight 523 overran the runway at Cheddi Jagan International Airport, Georgetown, Guyana, on 30 July 2011**

# THE PROGRESS OF SAR



“Be not afraid of going slowly, be afraid only of standing still.” (Chinese Proverb)



# TRAINING

1. Trinidad and Tobago was invited to participate in the Search and Rescue (SAR) Controllers Training and Meeting, hosted by the United States Coast Guard (USCG) and the National Oceanic and Atmospheric Administration (NOAA).
2. The training is held annually at the National Satellite Operations Facility in Maryland USA.



**PARTICIPANTS AT THE SAR CONTROLLERS 2014,  
NOAA FACILITY, MARYLAND**

# PARTICIPATION AT MEETINGS



**TTCAA REPRESENTATIVES IN CUBA 2015,  
MARITIME SAR DRILL**



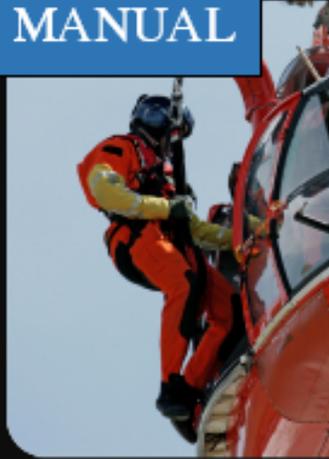
**TTCAA REPRESENTATIVES AT ICAO MEXICO SAR MEETING**



**TTCAA REPRESENTATIVES AT FRENCH ANTILLES SAR DRILL, MARTINIQUE**

# DOCUMENTATION

## A/SAR/RDR/AS UNIT OPERATIONS MANUAL



Nicholas Mark  
Aeronautical Search and Rescue, Regional  
Disaster Response and Air Navigation  
Services Security (A/SAR/RDR/AS) Unit  
3/14/2014

The A/SAR/RDR/AS Unit Operations Manual aims to provide the guiding principles needed for operational efficiency through Coordination, Information Sharing and Training within all Agencies within the Piarco Fir/SRRs.

- Operations Manual.
- Training Manual.
- Quality Assurance Manual

# DRAFT DOCUMENTATION

Aeronautical  
Search And Rescue



**QUALITY ASSURANCE**

This A-SAR & AN-SEC Quality Assurance Document systematically and continuously monitors and evaluates the Operations of the A-SAR & AN-SEC Operations Centre to ensure that specific standards of quality are being met and maintained.

**AERONAUTICAL SEARCH AND RESCUE  
OPERATORS COURSE**



This A-SAR Operator Course details the provisions for Certification at the ARCC Pirco. Individuals who have successfully completed this course shall be certified and will have acquired the required competency, in order to provide unsupervised A-SAR Operator services in the ARCC Pirco.

# COLLABORATION



- SPATIA Workshop for Military Personnel – commenced April, 2013
- Maritime Meteorological Workshop for Military Personnel – to start July, 2014

- Early Warning Systems (EWS) meeting hosted by the UNDP – National Capacity Development for Disaster Risk Management Project on Monday 10th of March, 2014
- Joint Task Force created between Maritime and Aeronautical facilities – created May, 2014

# COLLABORATION

## **TT SRR/WG SECOND MEETING ON THE IMPLEMENTATION OF GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) AND SAR 8-9 MAY, 2014.**



- **Countries Update on their GMDSS and SAR Systems**
- **Development of National SAR Plans and Regional SAR Plan**
- **Development of SOP's and the requisite Training Programs**
- **Development of an Interstate Multilateral Agreement**



Cir 330  
AN/189

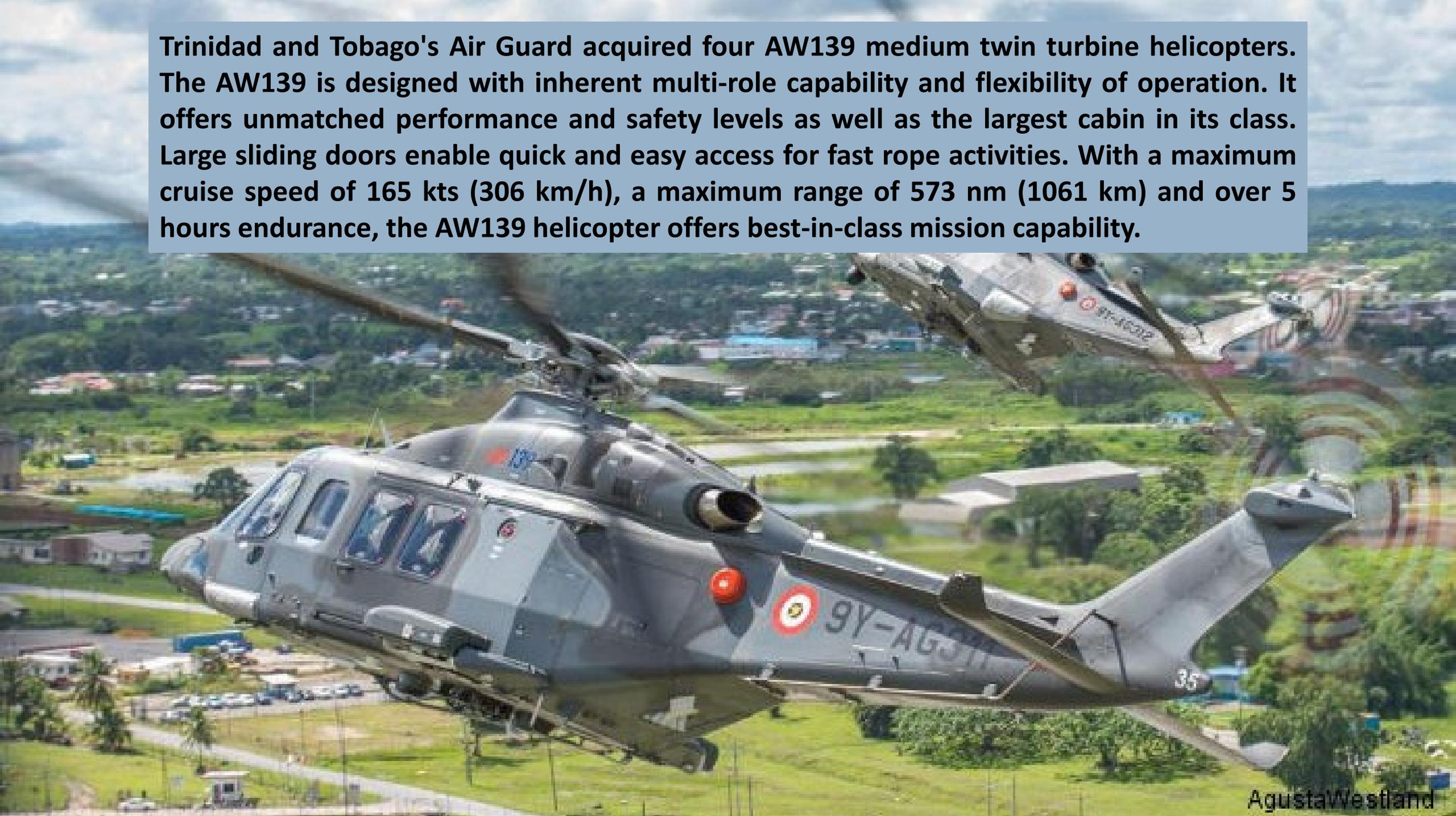
## Civil/Military Cooperation in Air Traffic Management

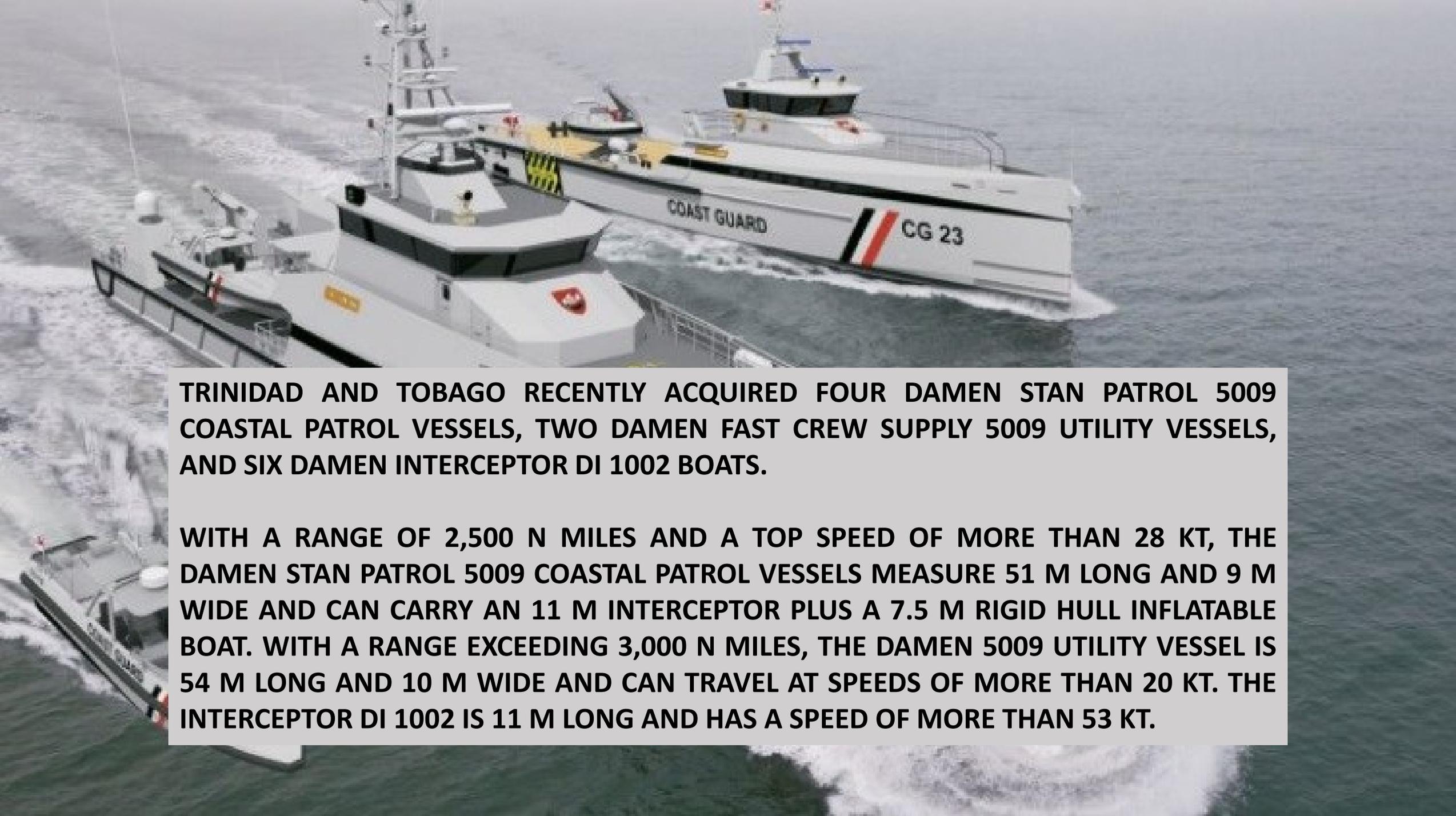
Approved by the Secretary General  
and published under his authority

International Civil Aviation Organization

# CIVIL/MILITARY COORDINATION

**Trinidad and Tobago's Air Guard acquired four AW139 medium twin turbine helicopters. The AW139 is designed with inherent multi-role capability and flexibility of operation. It offers unmatched performance and safety levels as well as the largest cabin in its class. Large sliding doors enable quick and easy access for fast rope activities. With a maximum cruise speed of 165 kts (306 km/h), a maximum range of 573 nm (1061 km) and over 5 hours endurance, the AW139 helicopter offers best-in-class mission capability.**





**TRINIDAD AND TOBAGO RECENTLY ACQUIRED FOUR DAMEN STAN PATROL 5009 COASTAL PATROL VESSELS, TWO DAMEN FAST CREW SUPPLY 5009 UTILITY VESSELS, AND SIX DAMEN INTERCEPTOR DI 1002 BOATS.**

**WITH A RANGE OF 2,500 N MILES AND A TOP SPEED OF MORE THAN 28 KT, THE DAMEN STAN PATROL 5009 COASTAL PATROL VESSELS MEASURE 51 M LONG AND 9 M WIDE AND CAN CARRY AN 11 M INTERCEPTOR PLUS A 7.5 M RIGID HULL INFLATABLE BOAT. WITH A RANGE EXCEEDING 3,000 N MILES, THE DAMEN 5009 UTILITY VESSEL IS 54 M LONG AND 10 M WIDE AND CAN TRAVEL AT SPEEDS OF MORE THAN 20 KT. THE INTERCEPTOR DI 1002 IS 11 M LONG AND HAS A SPEED OF MORE THAN 53 KT.**

- The Changing International Defense and Security Environment:
- The Evolving Role of the Military; Environmental Protection and
- Resilience; Hemispheric Security and Defense Cooperation Policy: A Case for Strengthened Humanitarian Emergency Assistance.



# LEGISLATION

## **MULTI-LATERAL AGREEMENT** **Concerning Co-operation of Maritime and** **Aeronautical Search and Rescue among the States of** **Barbados, Grenada, St. Vincent and the Grenadines** **and Trinidad and Tobago**



From left to right: Lt Cdr Fernella Cordle, Mr Kyane Ragobar, Petty Officer Kirk Aziz, Ms Ida Eversley, Lt Cdr Deon Henry, Sub-Lt Gerald Charles, Sgt Watson Edwards, Mr Kees Koning, Midshipman Jadon Robinson, Capt Kirton Huggins (Chair), Mr Christer Waldegren, Mr Anthony Belmar, Midshipman Valene Valentine, Mr Brent Williams, Sub-Lt Daniel Castagne, Ms Diana Henry, Mr Ronald Kennedy, Ms Esther Derrick, Petty Officer Ronald Nicholas, Ms Veronica Sahadeo

Copyright Kees Koning

- Proposed amendments to the Draft Multilateral Agreement by individual States – Due July, 2014.
- Generation of a final Draft Multilateral Agreement – Due July, 2014.
- Submission of Operational SAR Plans – Due September, 2014.
- Submission of Regional SAR Plan – Due January, 2015.

# LETTERS OF AGREEMENTS



No. 257  
Proc. 055

La Embajada de Portugal presenta sus más atentos saludos a la Honorable Embajada de Trinidad y Tobago y tiene el honor de remitir en anexo una propuesta de Protocolo de Cooperación entre la República Portuguesa y la República de Trinidad y Tobago relativo a Operaciones Aeronáuticas de Búsqueda y Salvamento, mucho agradeciendo su reenvío a las autoridades competentes en la materia.

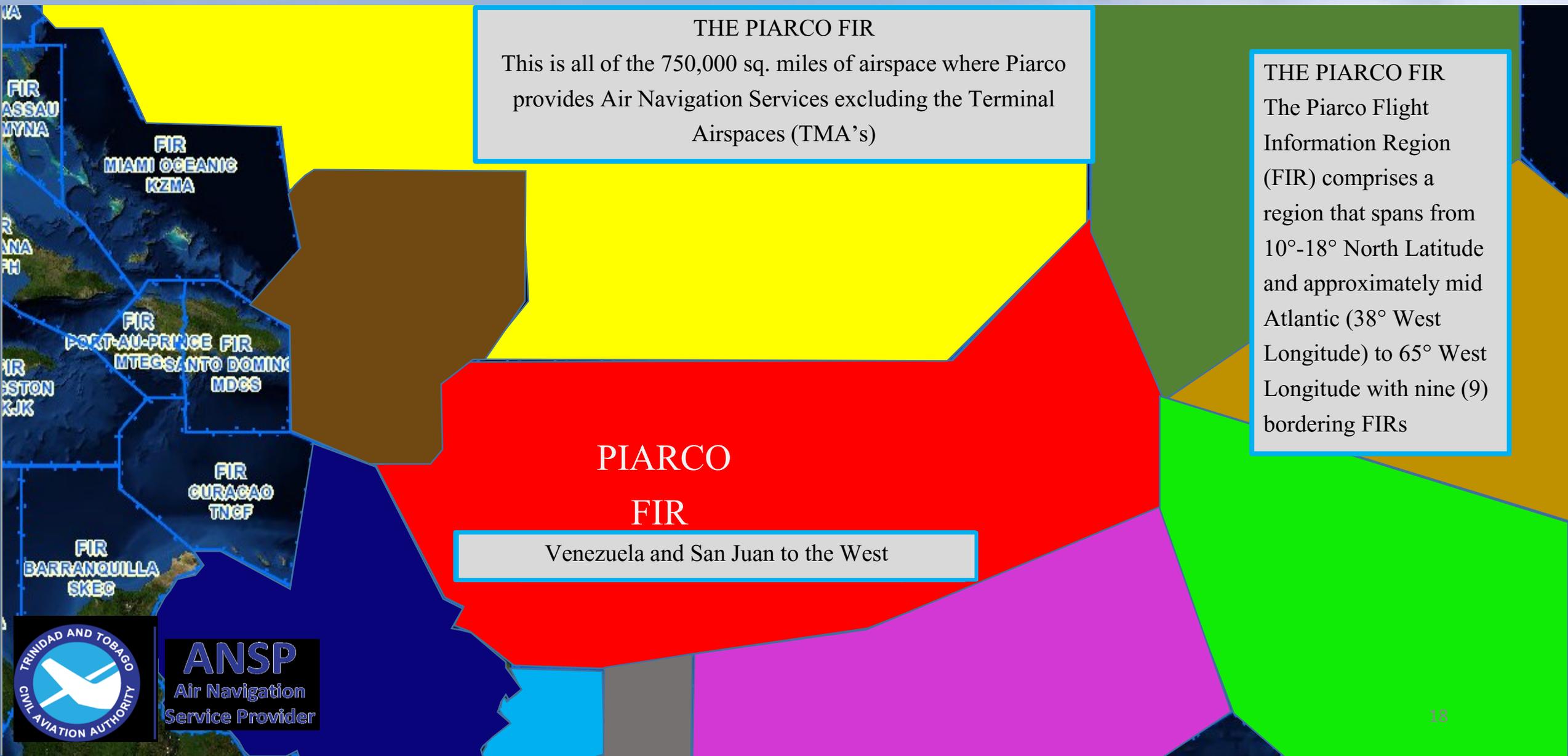
La Embajada de Portugal aprovecha la oportunidad para reiterar a la Honorable Embajada de Trinidad y Tobago las seguridades de su más alta y distinguida consideración.

Curacas, 08 de mayo de 2013



Honorable  
Embajada de la República de Trinidad y Tobago  
Caracas

# AIRSPACES AROUND THE PIARCO FIR



**THE PIARCO FIR**  
This is all of the 750,000 sq. miles of airspace where Piarco provides Air Navigation Services excluding the Terminal Airspaces (TMA's)

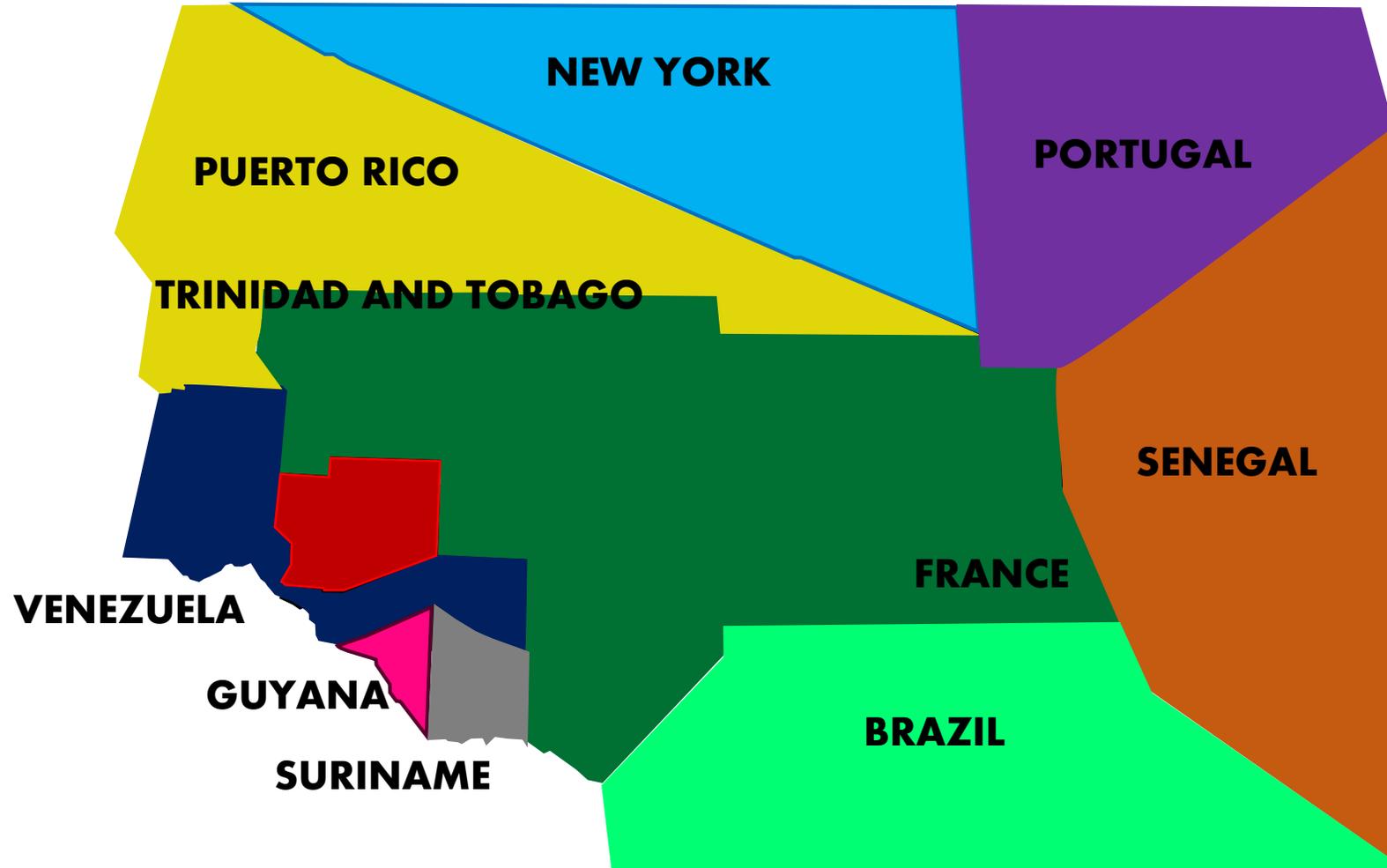
**THE PIARCO FIR**  
The Piarco Flight Information Region (FIR) comprises a region that spans from 10°-18° North Latitude and approximately mid Atlantic (38° West Longitude) to 65° West Longitude with nine (9) bordering FIRs

**PIARCO FIR**  
Venezuela and San Juan to the West



**ANSP**  
Air Navigation Service Provider

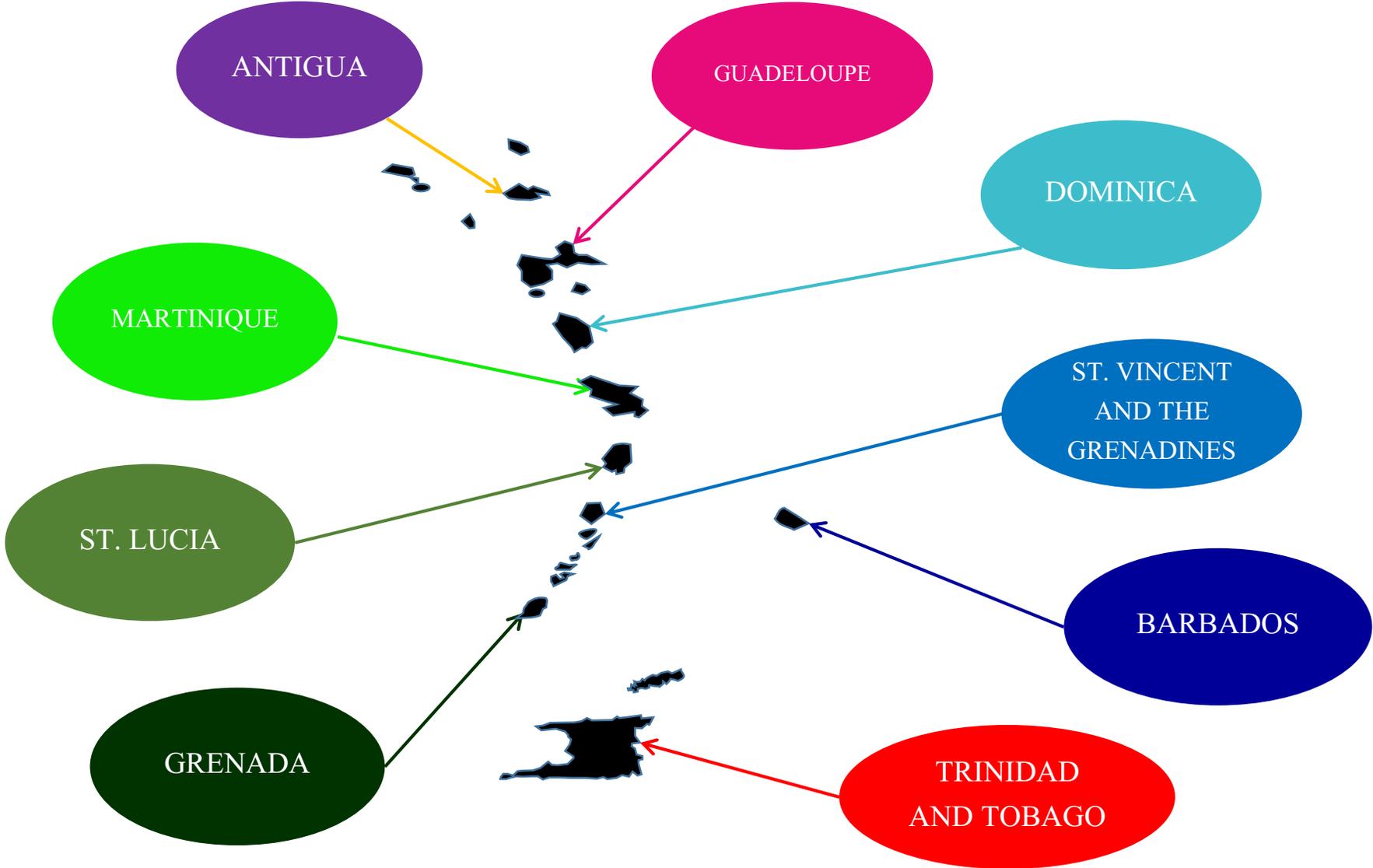
# INTERNATIONAL COORDINATION RESPONSIBILITIES



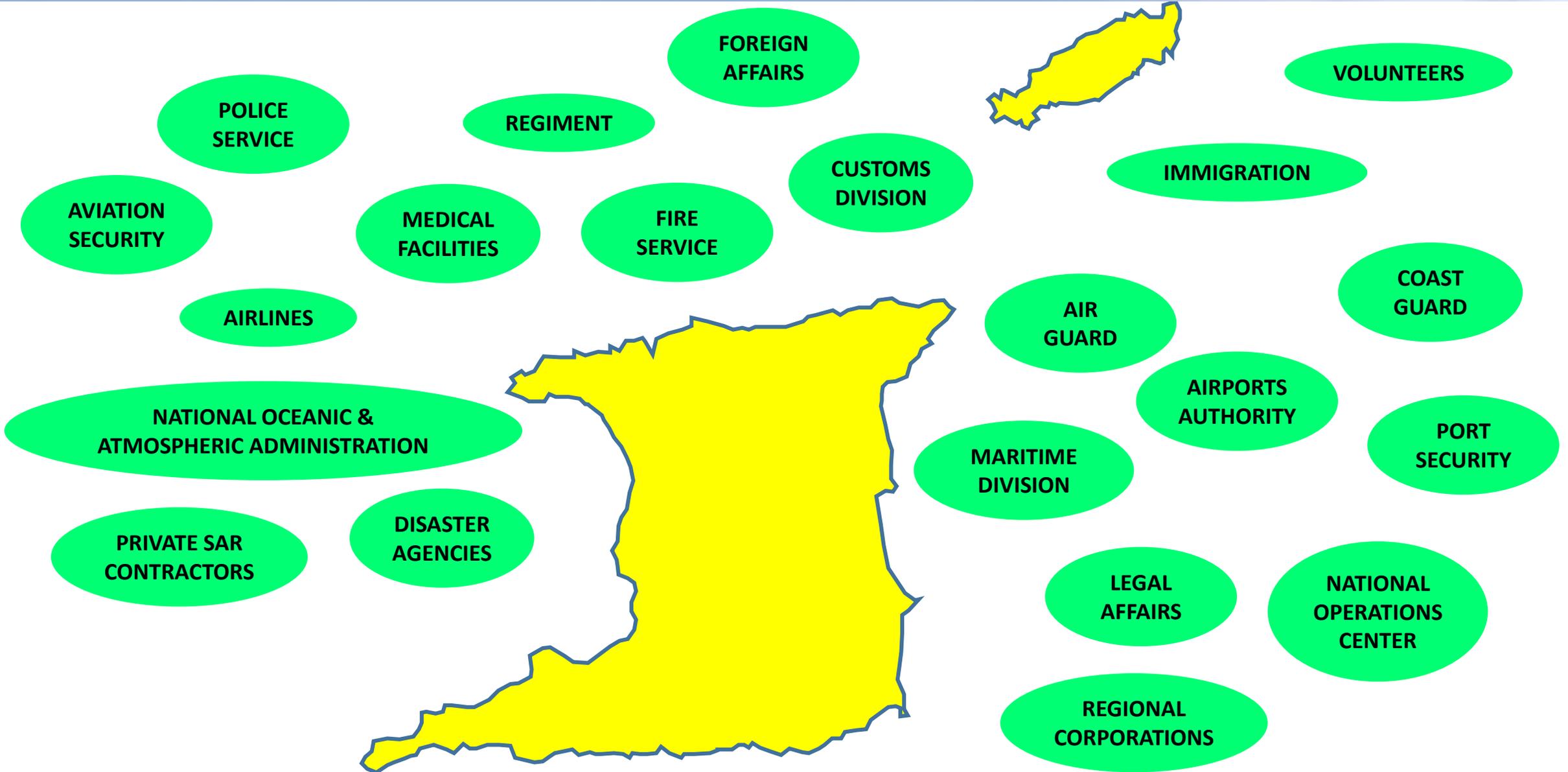
## Aeronautical Search and Rescue Region (SRR)

An area of defined dimensions, associated with a Rescue Co-ordination Centre, within which Search and Rescue services are provided.

# REGIONAL COORDINATION RESPONSIBILITIES

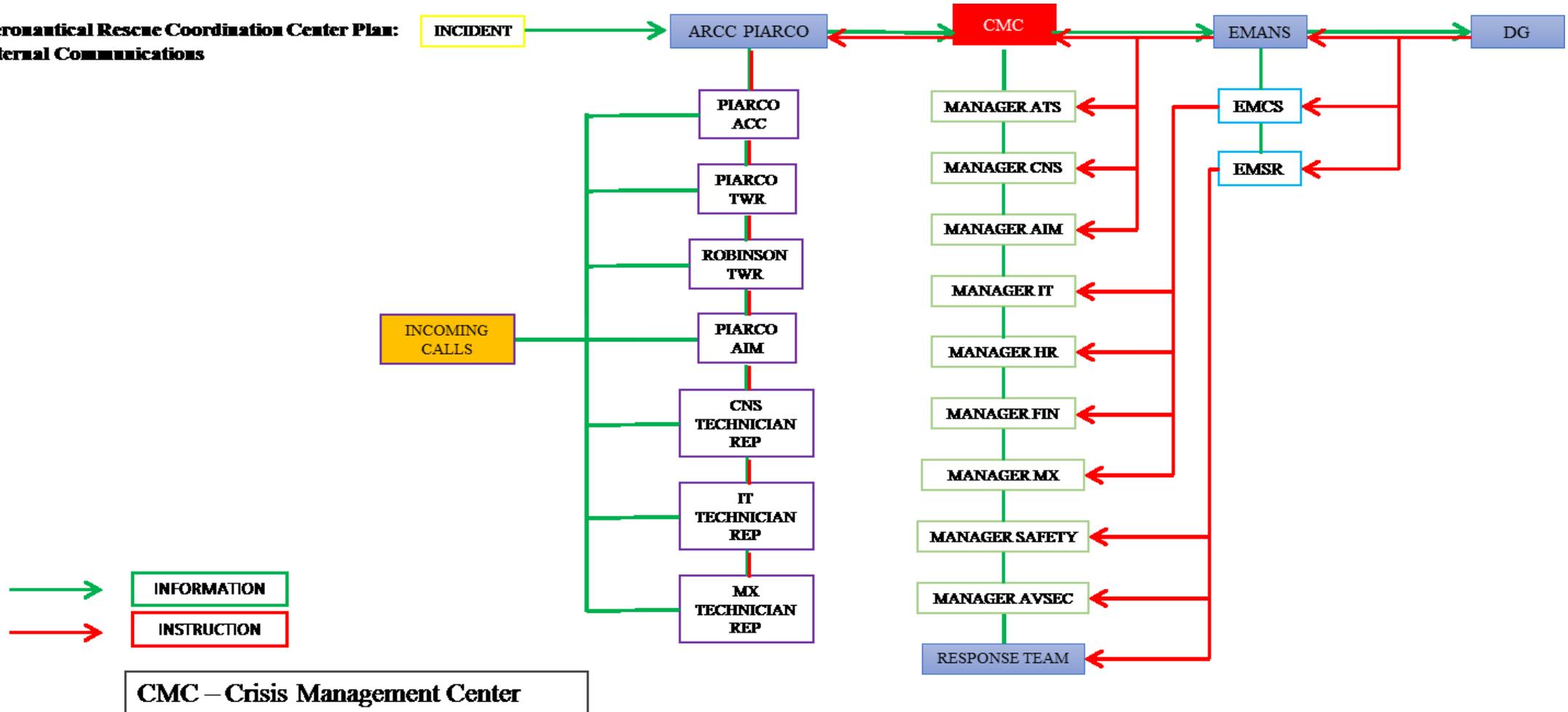


# NATIONAL COORDINATION RESPONSIBILITIES



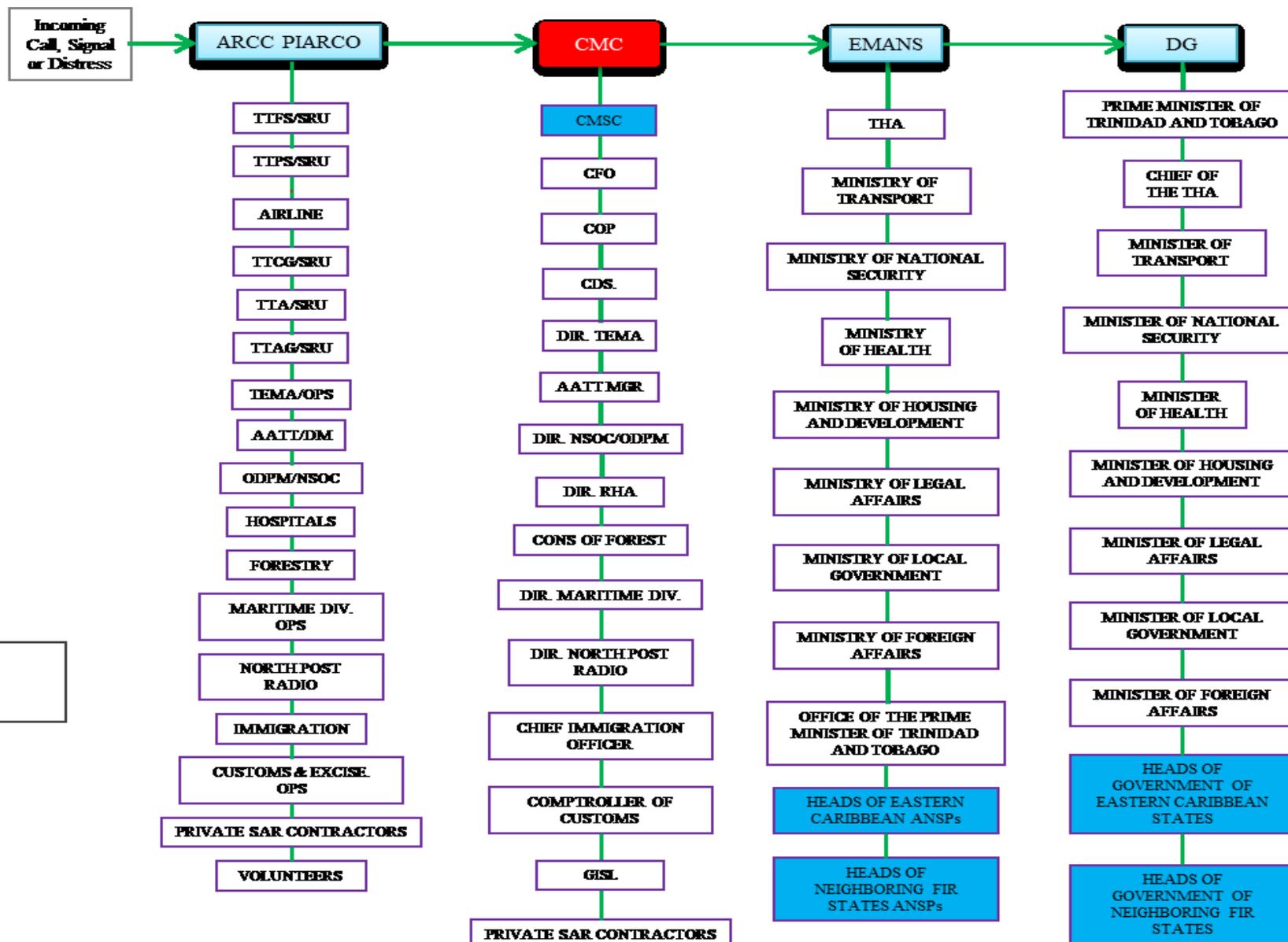
# A-SAR & AN-SEC INTERNAL COMMUNICATIONS FLOW CHART

**Aeronautical Rescue Coordination Center Plan:  
Internal Communications**



# A-SAR & AN-SEC EXTERNAL COMMUNICATIONS FLOW CHART

## Aeronautical Rescue Coordination Center Plan: External Communications



→ INFORMATION

CMC – Crisis Management Center  
CMSC – Crisis Management Sub-center



# AIR NAVIGATION SECURITY

# AIR NAVIGATION SECURITY

Air Navigation Security is the qualitative aspect of the ANSP being secure. Air Navigation Security identifies, assesses, controls, manages and contains all threats, whether espionage, crime, terrorism or any other related misdemeanor which may constitute as a risk to the ANSP Operations, Capital or Earnings.

**LOCALIZER**



**NDB**



**VOR**



**ANSP FACILITY**



**ILS**



**RADAR**



**VSAT**



# HUMAN RESOURCE

# AIR NAVIGATION SECURITY

## SECURITY CONTINGENCY PLANS

**TERRORISM CONTINGENCY PLAN**



**WAR AND/OR CIVIL DISORDER CONTINGENCY PLAN**



## ANS CONTINGENCY PLANS

**ATM CONTINGENCY PLAN**

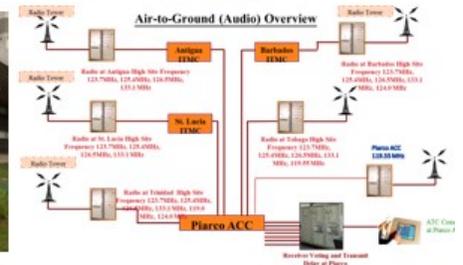


**AIM CONTINGENCY PLAN**



**MET CONTINGENCY PLAN**

**CNS CONTINGENCY PLAN**



## MAN-MADE DISASTER CONTINGENCY PLANS

**DISEASE OUTBREAK CONTINGENCY PLAN**



**POLLUTION CONTINGENCY PLAN**



## NATURAL DISASTER CONTINGENCY PLANS

**HURRICANE CONTINGENCY PLAN**



**FLOODING CONTINGENCY PLAN**



**EARTHQUAKE CONTINGENCY PLAN**



**WILDFIRES CONTINGENCY PLAN**

**TSUNAMI CONTINGENCY PLAN**

# A-SAR & AN-SEC OPERATIONS CENTRE



**THANK YOU**

**THE END**