



**2<sup>nd</sup> AFI WEEK**

**27 June – 1st July 2016,  
Malabo, Equatorial Guinea**

**3rd AFI AVIATION SYMPOSIUM,  
28 June**

**Presentation by the Cameroon Civil  
Aviation Authority**

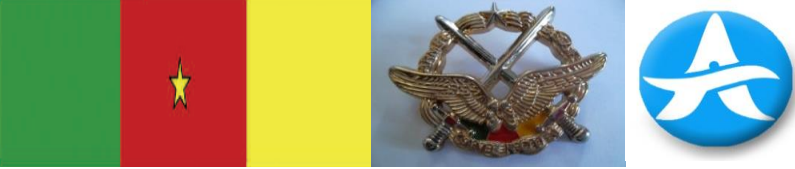


# SEARCH AND RESCUE (SAR) PREPARADENESS



# ARE WE PREPARED ?

- To save lives
- To find wreckage?
- To recover essential data?
- Etc



# PLAN

- SAR SYSTEM ELEMENTS
- THE CASE OF CAMEROON
- COOPERATION PROPOSALS



## SAR System Requirements

- Optimum Performance
- Cost-effective and
- Safe



# SAR SYSTEM ELEMENTS



## Software

- Laws ;
- Regulations ;
- Alerting procedures ;
- Operations Plans ;
- RCC check lists ;
- Letters of Agreement.



# SAR SYSTEM ELEMENTS

## Hardware

- Rescue Coordination Centre (RCC) accommodation and equipment
- Cospas-Sarsat land Stations
- Message switching facilities
- Telecommunications
- Computer stations
- Search and Rescue Units



SAR  
Event



# SAR SYSTEM ELEMENTS

## Liveware

- Operational & Managerial personnel
  - qualified
  - trained
  - proficient



SAR  
Event





# THE CASE OF CAMEROON

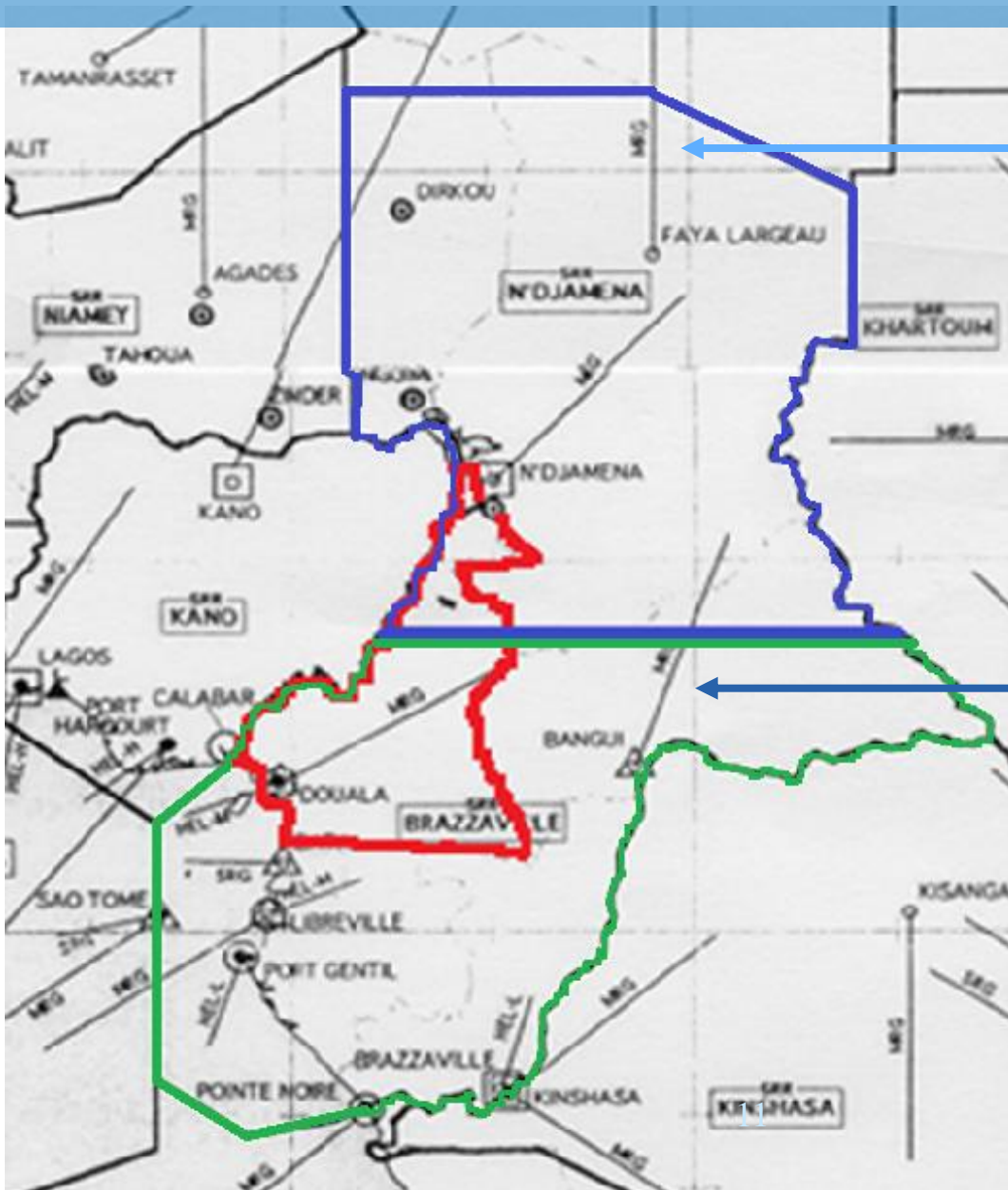
- SAR OPERATING ENTITIES
- NATIONAL REGULATORY FRAMEWORK
- RESCUE SUB CENTER
- PERSPECTIVES
- CHALLENGES



# THE CASE OF CAMEROON

## GEOGRAPHICAL SITUATION

The Cameroonian territory is divided between the search and rescue region (SRR) of N'Djamena (whose boundaries coincide with the flight information region (FIR) of N'Djamena), and the SRR of Brazzaville (whose limits coincide with the Brazzaville FIR).



SRR N'DJAMENA

SRR BRAZZAVILLE



# SAR OPERATING ENTITIES

Each of these SRRs has a Rescue Coordination Center (RCC).

The Rescue Sub Center (RSC) of Douala was subordinated to these two RCCs, according to the regional air navigation plan (RANP) : ICAO DOC 7474.

In January 2011, the RSC has been relocated from Douala to Yaounde, to bring it near the decision centers.

By delegation of Ndjamenas and Brazzaville RCCs, the RSC of Yaounde is the principal operating SAR entity in Cameroon.



# NATIONAL REGULATORY FRAMEWORK

Law N° 2013/010 of 24 July 2013  
« on the civil aviation regime in Cameroon »

## Article 74

- (1) The assistance to aircraft in distress, the search of missing aircraft, and rescue of victims of accidents occurring to aircraft are under the responsibility of the State.
  
- (2) The organization and operation of search and rescue services are set by regulation.



# NATIONAL REGULATORY FRAMEWORK

LAW

*(Law N° 2013/010 of 24 July 2013 on the civil aviation regime in Cameroon)*



1 DECREE

*(Decree N° 68/DF/211 of 30 May 1968 on the organization of search and rescue of aircraft in distress in peace time )*



# NATIONAL REGULATORY FRAMEWORK

Decree N° 68/DF/211 of 30 May 1968  
on the organization of search and rescue of  
aircraft in distress in peace time

## Title I : Organization of search and rescue of aircraft in distress in peace time

SAR organization depends on the Minister in charge of Civil Aviation, who acts in coordination with the Minister in charge of Defense.



# NATIONAL REGULATORY FRAMEWORK

Decree N° 68/DF/211 of 30 May 1968  
on the organization of search and rescue of  
aircraft in distress in peace time

## Title II : Search and rescue organizations

- National SAR Committee chaired by the Minister in charge of Civil Aviation ;
- **SAR studies and coordination Section under the authority of the Minister in charge of Civil Aviation ;**
- SAR execution Section under the authority of the Minister in charge of Defense, responsible for SAR operations.





# NATIONAL REGULATORY FRAMEWORK

Decree N° 68/DF/211 of 30 May 1968  
on the organization of search and rescue of  
aircraft in distress in peace time

## Title III : Search and Rescue Coordination Center (RCC)

It is responsible for the preparation and execution  
of SAR operations.



## LAW

*(Law N° 2013/010 of 24 July 2013 on the civil aviation regime in Cameroon)*



## 1 DECREE

*(Decree N° 68/DF/211 of 30 May 1968 on the organization of search and rescue of aircraft in distress in peace time )*



## MINISTERIAL TEXTS

*Decision N° 00040/D/MINT/MINDEF of 22 March 2012 on the organization and operation of the Rescue Sub Centre of Yaounde*



## GUIDANCE MATERIAL (PROCEDURES)

- RSC Operations Manual ;
- Qualification procedure for RSC staff ;
- Protocol for coordination between the RSC and ASECNA.



# SAR SYSTEM ELEMENTS



## Software

- Laws ;
- Regulations ;
- Alerting procedures ;
- Operations Plans ;
- RCC check lists ;
- Letters of Agreement.



## RESCUE SUB CENTER

- Located at the Air Force Base in Yaounde ;
- Operational since June 2012 ;
- H24 operation.





# RESCUE SUB CENTER

SAR Point of  
Contact (SPOC) of  
COSPAS SARSAT  
system





## RESCUE SUB CENTER

### CIVIL/MILITARY COORDINATION

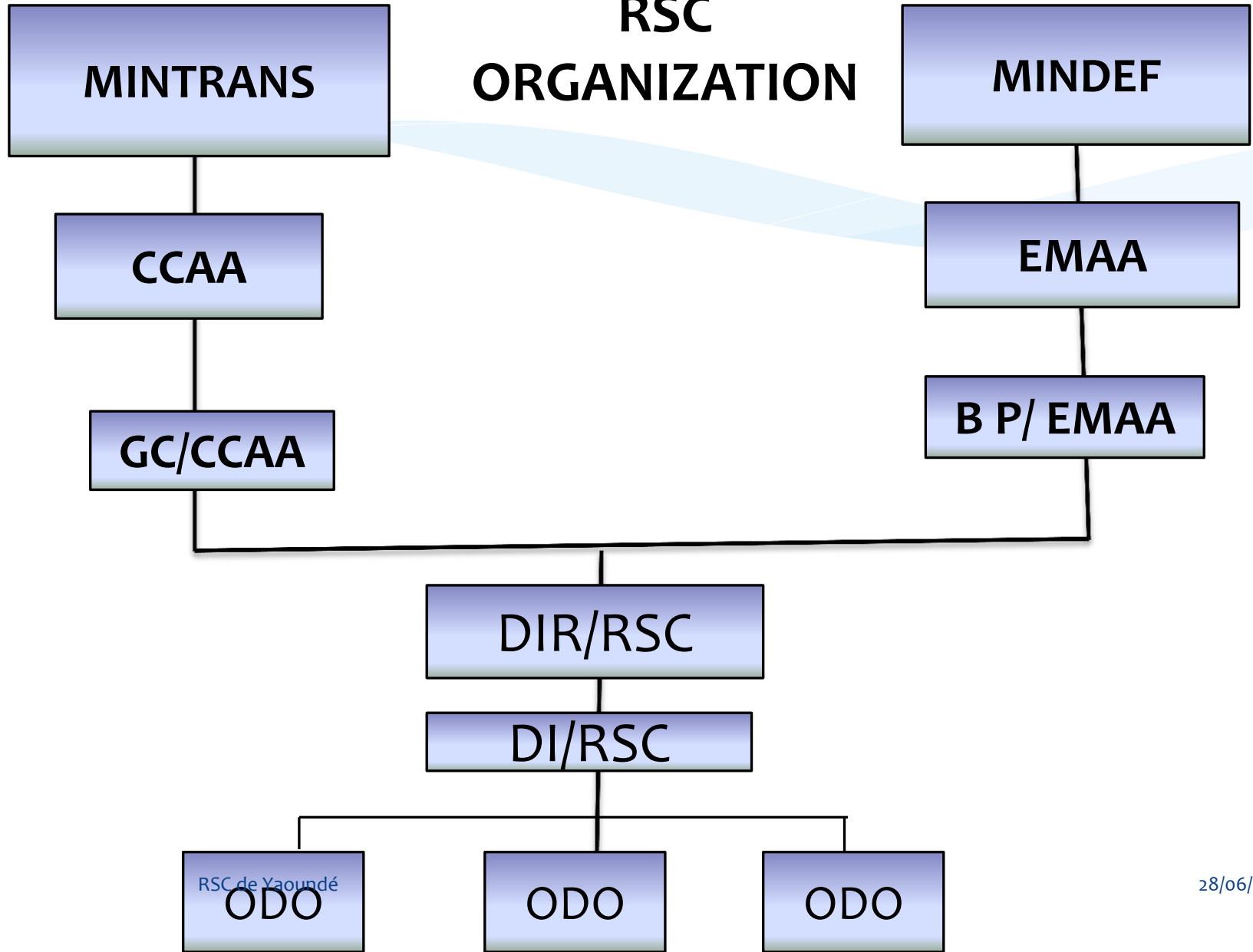
The RSC is both a civil and military organization.

It depends on the Minister in charge of Civil Aviation (Civil Aviation Authority) for the general organization of its international mission.

It is subordinate to the Minister in charge of Defence (Air Force Headquarters) for operational aspects.



# RSC ORGANIZATION







## RESCUE SUB CENTER

### CIVIL/MILITARY COORDINATION

Expenses borne by the Civil Aviation Authority :

- Office supplies ;
- Incentive for RSC staff ;
- Training of SAR personnel ;
- Fuel for RSC vehicles.

Expenses borne by the Air Force:

- Acquisition and maintenance of SAR equipment (Distress beacon, survival equipment, life jackets, life boats, etc ...) ;
- Expenses related to the participation in SAR operations.



# RESCUE SUB CENTER

## PERSONNEL AND TRAINING

The RSC staff is provided by the Ministry in charge of Defence (Air Force Headquarters).





# RESCUE SUB CENTER

## PERSONNEL AND TRAINING

All RSC staff attended a SMC (SAR Mission Coordinator) training course.

Cameroon hosted two SMC training courses delivered by EAMAC of Niamey and relocated at Yaounde RSC in November 2012 and June 2015.



# RESCUE SUB CENTER

## PERSONNEL AND TRAINING







# RESCUE SUB CENTER

## PERSONNEL AND TRAINING

Training courses are organized every year for the Air Force crews to enhance their operational readiness.





# RESCUE SUB CENTER

## PERSONNEL AND TRAINING





# RESCUE SUB CENTER

## EXERCISES

Communications exercises are regularly organised by the RSC.

A coordination exercise has been organised in July 2013. It was the main activity of the ICAO workshop on the provision of SAR services in the AFI Region.







# RESCUE SUB CENTER

## EXERCISES







## RESCUE SUB CENTER

### SEARCH EQUIPMENT

Cameroon does not have specialized SAR resources (aircrafts permanently assigned to the SAR service).



The means used for search and rescue belong to military and civilian agencies (Army, Gendarmerie, Police, Fire Brigade, Aircraft Operator, Navy, etc ...)





# RESCUE SUB CENTER

## RESCUE EQUIPMENT



- Rescue boat ;
- Largable SAR Chain ;
- Dry suits ;
- ...etc.



# RESCUE SUB CENTER

## RESCUE EQUIPMENT



- Survival kits ;
- Life jackets ;
- Distress signals ;
- Survival rations.



# SAR SYSTEM ELEMENTS

## Hardware

- Rescue Coordination Centre (RCC) accommodation and equipment
- Cospas-Sarsat land Stations
- Message switching facilities
- Telecommunications
- Computer stations
- Search and Rescue Units

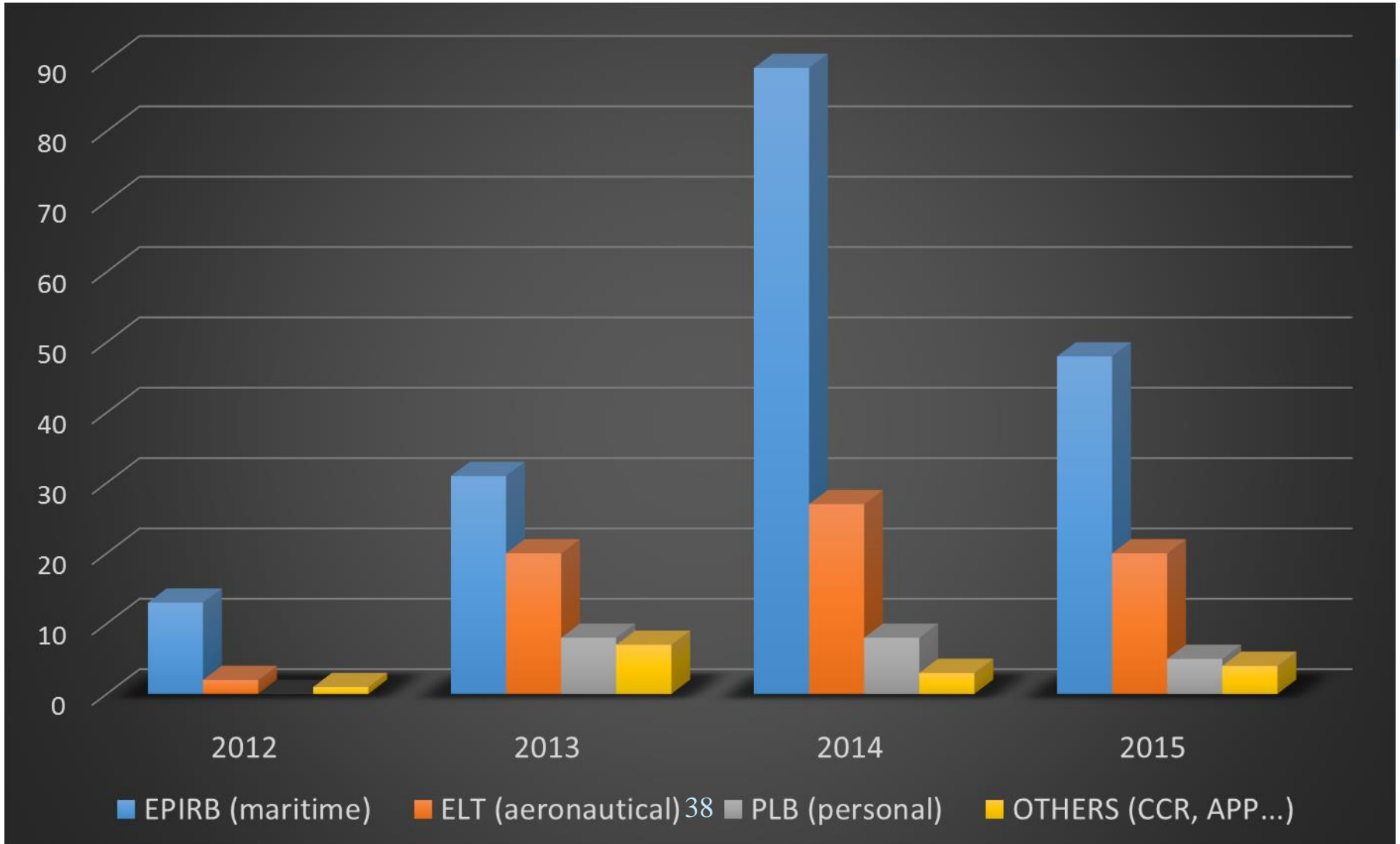


SAR  
Event



# SAR EVENTS

STATISTICS OF DISTRESS ALERTS FROM 2012 TO 2015





# RESCUE SUB CENTER

## REAL CASE 1

- Operation N° 142 of 22 June 2014 concerning the CESSNA C172 registered N9748L ;
- 70 hours 20 minutes of aerial search ;
- Wreckage found after 9 months and 24 days.





# RESCUE SUB CENTER

## REAL CASE 1







# RESCUE SUB CENTER

## REAL CASE 1





# RESCUE SUB CENTER

## REAL CASE 1





## RESCUE SUB CENTER

### REAL CASE N°2

- Opération N° 165 concernant le C182 immatriculé D- EKQO en cours depuis 12- 08-2014
- (Prochaine expédition sur le Mt-Cameroun à 4100 mètres d'altitude déjà programmée).



# SAR SYSTEM ELEMENTS

## Liveware

- Operational & Managerial personnel
  - qualified
  - trained
  - proficient



SAR  
Event



## SHORT-TERM PERSPECTIVES

- Construction of a new RSC, more suitable for the activities of the Center, and equipped with modern facilities ;
- Training of all SAR personnel (RCC/RSC staff and SRU) ;
- Regular organisation of SAR exercises (Organisation of a full scale SAR exercise in 2017).



# CHALLENGES

## USOAP AUDIT 2005 – 2010

67% of States had not established the necessary coordination of their SAR organisations with those of neighbouring States, including the conclusion of bilateral SAR agreements in order to coordinate SAR operations;



## CHALLENGES

No agreement has been signed among Cameroon and neighboring countries (Nigeria, Congo, Chad, Gabon, Central African Republic, Equatorial Guinea).

Draft agreements with Congo, Chad, Nigeria, and Equatorial Guinea have been prepared, and will be submitted to the other parties.





# CHALLENGES

- Coordination with Brazzaville RCC and N'Djamena RCC ;
- Coordination with Nigeria and Equatorial Guinea for the management of the maritime area ;
- Designation of Search and Rescue Units (SRU) on the whole territory and training of SRU.



## COOPERATION

### PROPOSAL

ICAO to organize a Special Conference on Agreements Negotiation ( like the one for Air Transport Agreements)



## COOPERATION

### POSSIBLE ACTIVITIES

- conduct of a SAR Gap Analysis;
- advice on the establishment of a SAR organisational framework;
- advice for the establishment of a National SAR Committee;
- technical assistance in the development of a National SAR Plan;



## COOPERATION

### POSSIBLE ACTIVITIES

- providing copies of relevant SAR documents to be used as templates;
- technical assistance on the establishment of SAR agreements;
- technical assistance in the development of RCC position descriptions;
- training of SAR personnel;



## COOPERATION

### POSSIBLE ACTIVITIES

- provision of SRU where appropriate and training of SRU crews;
- provision/sharing of computerised SAR tools including incident management systems, databases, maritime drift modelling software, etc.;
- establishing data and information sharing agreements between RCCs;



## COOPERATION

### POSSIBLE ACTIVITIES

- provide advice on how to conduct a SAREX and post-SAREX analysis; and
- set up of SAR system publicity and safety awareness campaigns.



**THANK YOU FOR YOUR KIND  
ATTENTION**