



**G**eneral aviation **R**escue capacity **I**mprovement  
for the worldwide **A**doption of a **S**afe **S**olution  
based on **E**uropean GNSS

## General aviation user's needs collection workshop

7 – ASECNA presentation on SAR in Africa

Barcelona  
January 31<sup>st</sup> 2018





1. Objectives
2. Provisions of the convention and SARPs on international aviation
3. Deficiencies in SAR systems in Africa
4. Status of SAR implementation in Africa
5. Conclusion



# 1 – Objectives

- Overview the implementation status of SAR services in Africa
- To show the main difficulties for the implementation of SAR service in Africa



## 2 – Provisions of the convention and SARPs on international aviation

### **Doc 7300**

#### **Article 28: Air navigation facilities and standard systems**

Each contracting state undertakes, so far as it may find practicable, to:

- a) provide, in its territory, airport, radio services, meteorological services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention.



## 2 – Provisions of the convention and SARPs on international aviation

### Doc 7300

#### **Article 37: Adoption of international standards and procedures**

Each contracting state undertakes to collaborate in securing the highest practicable degree of uniformity in regulation, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services **in all matters** in which such uniformity will facilitate and improve air navigation.



## 2 – Provisions of the convention and SARPs on international aviation

### Doc 7300

#### Article 25: Adoption of international standards and procedures

- a) Each contracting state undertakes **to provide such measures of assistance to aircraft in distress** in its territory as it may find practicable, and it permit, subject to control by its own authorities, the owners of the aircraft or authorities of the State in which the aircraft is registered to provide such measures of assistance as may be necessitates by the circumstances.
- b) Each contracting state, **when undertaking search for missing aircraft, will collaborate in coordinated measures** which may be recommended from time to time pursuant to this convention.



## 2 – Provisions of the convention and SARPs on international aviation

### SARPs and other provisions

#### Annex 12 – Search and Rescue

##### a) Search and Rescue Services

Contracting State 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-hours basis.



## 2 – Provisions of the convention and SARPs on international aviation

### SARPs and other provisions

#### Annex 12 – Search and Rescue

##### b) Rescue coordination centres and rescue subcentres

Each rescue coordination centre and, as appropriate, rescue subcenter, **shall be staffed 24 hours a day by trained personnel proficient** in the use of the language used for radiotelephony communications.





## 2 – Provisions of the convention and SARPs on international aviation

### SARPs and other provisions

#### Annex 12 – Search and Rescue

##### c) Search and rescue equipment

Search and rescue units **shall be provided with equipment for locating promptly**, and for providing adequate assistance at, the scene of an accident.



## 3 – Deficiencies in SAR systems in Africa

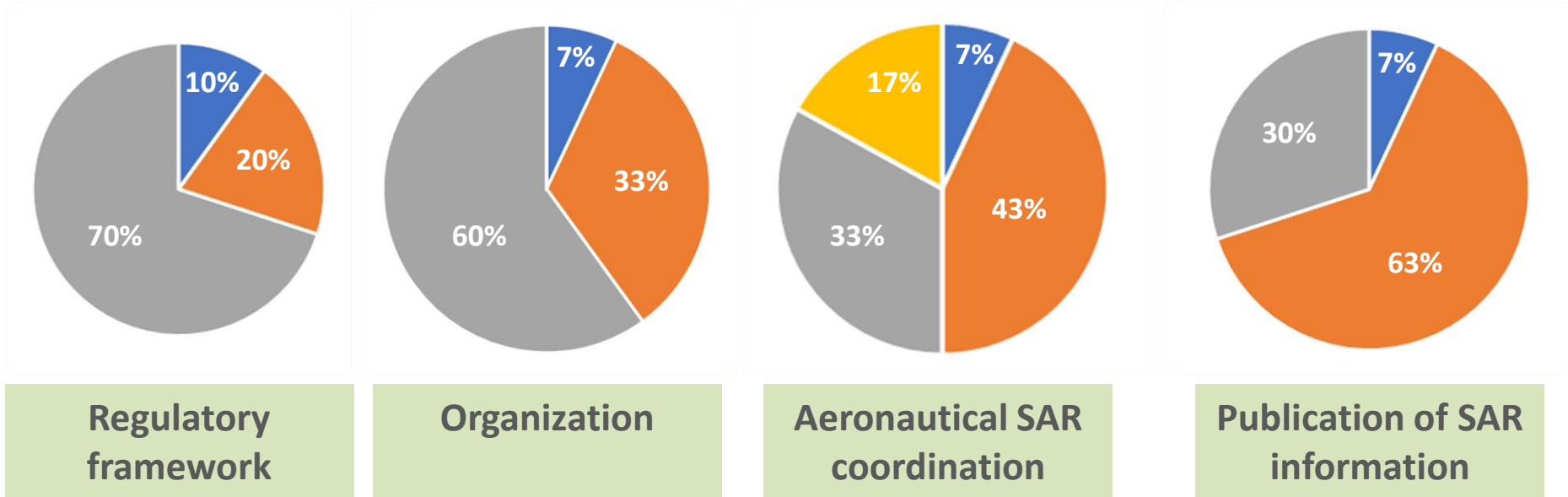
### Gap analysis results

- Regulatory framework
- Organization
- Aeronautical SAR coordination
- Publication of SAR information
- Funding
- SAR convention and agreement
- Operational procedure
- Equipment/communications
- Personnel/training/exercises
- SAR services oversight/improving services



# 3 – Deficiencies in SAR systems in Africa

## Gap analysis results



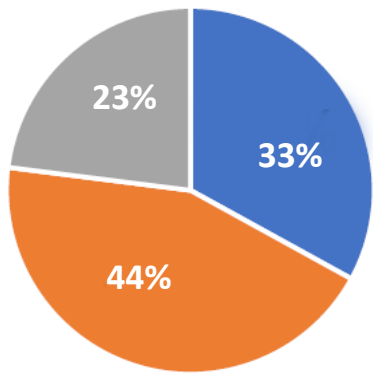
ICAO USOAP Audit

- Not applicable
- Not implemented
- Partially implemented
- Fully implemented

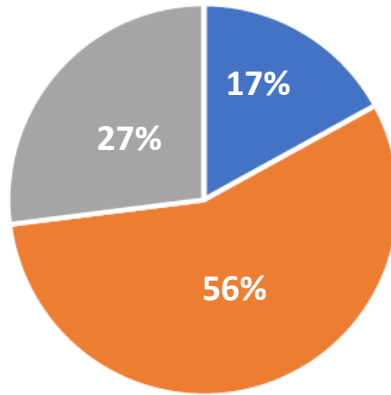


# 3 – Deficiencies in SAR systems in Africa

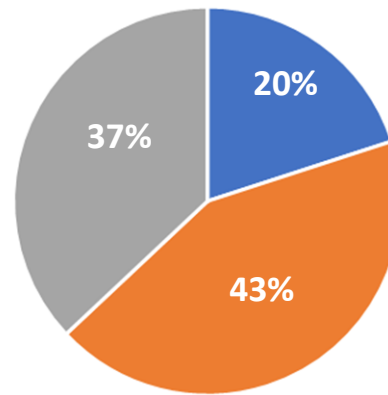
## Gap analysis results



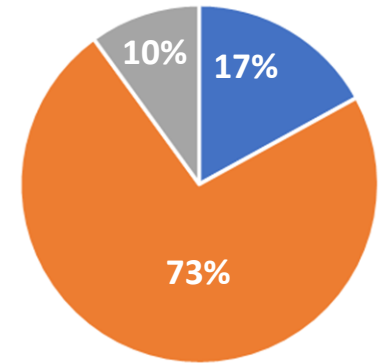
Funding



SAR convention and agreement



Coordinational procedures



Equipment / communications

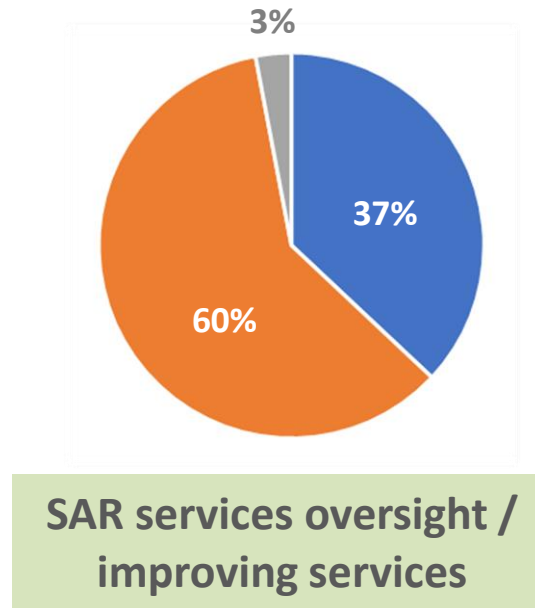
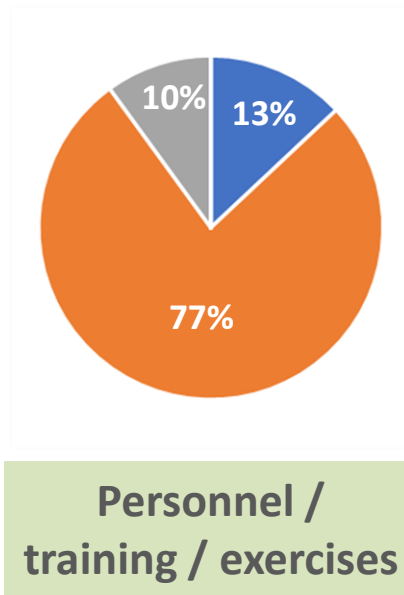
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# 3 – Deficiencies in SAR systems in Africa

## Gap analysis results



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# 4 – Status of SAR implementation in Africa

## ESAF/WACAF states

WACAF States		ESAF States	
Benin: 54%	Gambia: 87%	Angola: 27%	Mauritius: 48%
Burkina Faso: 36%	Ghana: 60%	Botswana: 79%	Mozambique: 33%
Cameroon: 42%	Guinea: 27%	Burundi: no records	Namibia: 51%
Cabo Verde: 39%	Guinea Bissau: 21%	Comoros: 33%	Rwanda: 100%
Central African Republic: 15%	Liberia: 54%	Djibouti: 57%	Seychelles: 12%
Chad: 24%	Mali: 63%	Eritrea: 36%	Somalia: no records
Congo: 15%	Mauritania: 96%	Ethiopia: 66%	South Africa: 84%
Cote D'Ivoire: 33%	Niger: 42%	Kenya: 84%	South Sudan: no records
Democratic Republic Congo: 33%	Nigeria: 45%	Lesotho: 45%	Swaziland: 30%
Equatorial Guinea: 42%	Sao Tome and Principe: 27%	Madagascar: 69%	
Gabon: 21%	Senegal: 36%	Malawi: 33%	



## 4 – Status of SAR implementation in Africa

### ESAF/WACAF states

#### ICAO USOAP Audit

- Statistics from not Satisfactory (CAP dev)
- 11 States out of 48 having a score of 60%
- Represents 23% AFI states

**iWhat needs to be done!**



## 5 – Conclusion

With regard to statistic presented before, efforts are expected on the following aspects:

- SAR legislation
- SAR organization
- SAR cooperation agreement
- effective implementation of Emergency Locator Transmitters (ELT) 406Mhz beacons
- SAR facilities means
- sufficient trained and qualification personnel and regular SAR exercises

**The success of the GRICAS / GRIMASSE projects depend mainly of the high level state attention and adequate resource allocation for enhanced SAR capacity**





# 5 – Conclusion

Thank you for your kind attention

