



Directorate-General  
for Energy  
and Transport



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# Improving Aviation Safety in Africa: A Necessary Condition for Development

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# Contents



**I. Africa: a market in fast growth**



**II. Safety is a necessary condition for growth**



**III. Diagnostic of safety oversight deficiencies**



**IV. Operational restrictions: a last resort measure**



**V. EC Technical Cooperation Approach to Africa**



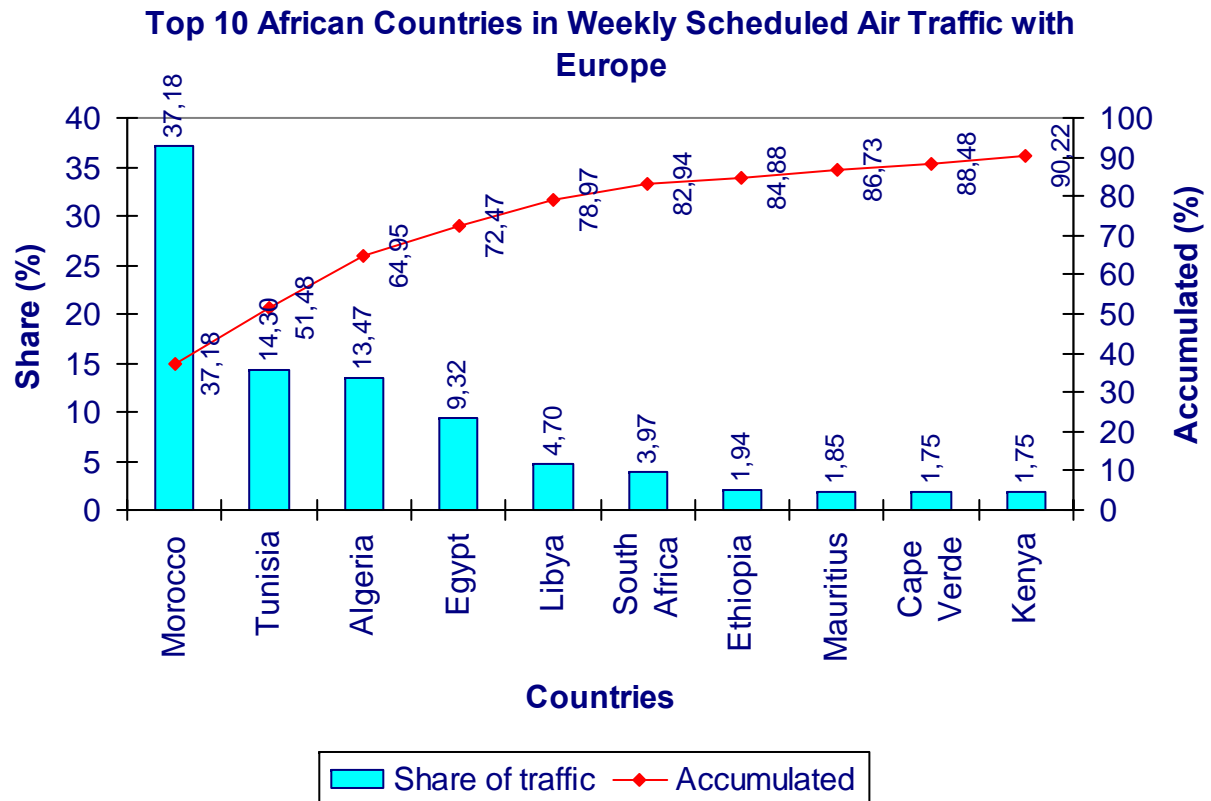
**VI. Conclusions**



## I. Africa: a market in fast growth

### Top 10 African Countries per Air Traffic with EU

Countries	Weekly Frequencies (2008) with EU countries (scheduled flights)	% of Total
Morocco	403	37,18
Tunisia	155	14,30
Algeria	146	13,47
Egypt	101	9,32
Libya	51	4,70
South Africa	43	3,97
Ethiopia	21	1,94
Mauritius	20	1,85
Cape Verde	19	1,75
Kenya	19	1,75
<b>Total</b>	<b>978</b>	<b>90,22</b>



\* Number of Weekly Scheduled flights of African Countries with EU in 2008: 1084





## I. Africa: a market in fast growth



### High increase of air traffic...

- The demand for air transport has grown.
- The number of airlines has multiplied
- The growth of air traffic in African skies is higher than the world average
- The market is so profitable that it attracts worldwide carriers
- Smaller airlines try also to get a share of the market





## **I. Africa: a market in fast growth**

**...But weaknesses in the local environment...**

- **Weak share in the world traffic (4% in 2005; African airlines carry only 30% of international traffic to and from Africa)**
- **Underdeveloped intra-African aviation network**
- **Limited air transport industry (500.000 jobs against 29 million worldwide)**
- **Older aircraft (In 2003, the average fleet age in Africa was 20y against 10y for the rest of the world)**
- **Air navigation and the airspace management suffer also from serious weaknesses (such as old and obsolete equipment)**



## **II. Safety is a necessary condition for growth**

**...Safety is one of the most important weaknesses**

**Several key indicators converge to indicate that Africa's Safety performance is probably the worst compared to other regions of the world:**

- **Accident rates**
- **Safety Assessment of Foreign Aircraft reports**
- **ICAO safety oversight audits**

**There are margins for major improvement.**

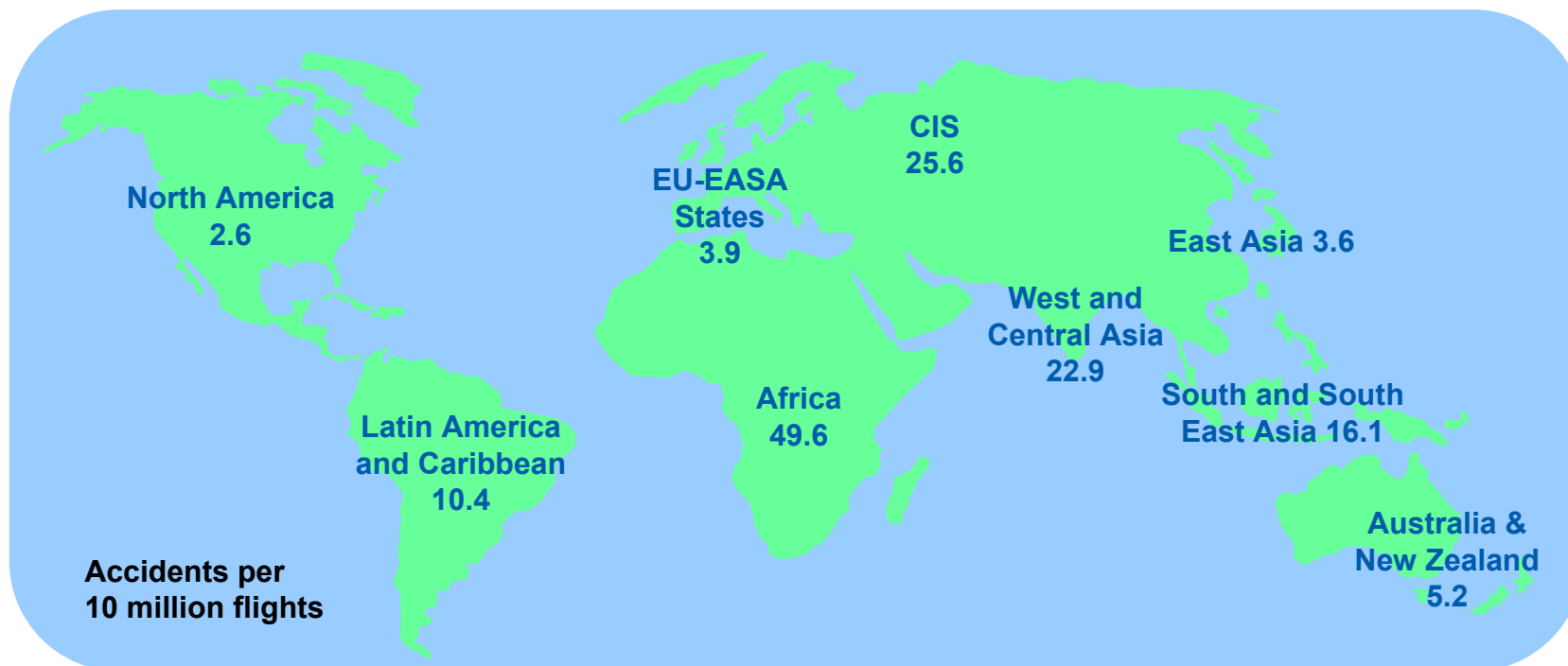
## **II. Safety is a necessary condition for growth**

### Accident rates

- **Whilst the continent accounts for only 4% of the world traffic, according to IATA, the average of aircraft total losses in Africa is more than 9 times higher than the world average**
- **Statistics highlight that the rate of fatal accidents per million of departures is 8 times higher in Africa than the world average**
- **Africa is the region of the world with the highest fatal accident rate**

## II. Safety is a necessary condition for growth

### ▪ Fatal accident rate per world region (2000 – 2007)



Source: EASA (scheduled passenger and cargo operations)

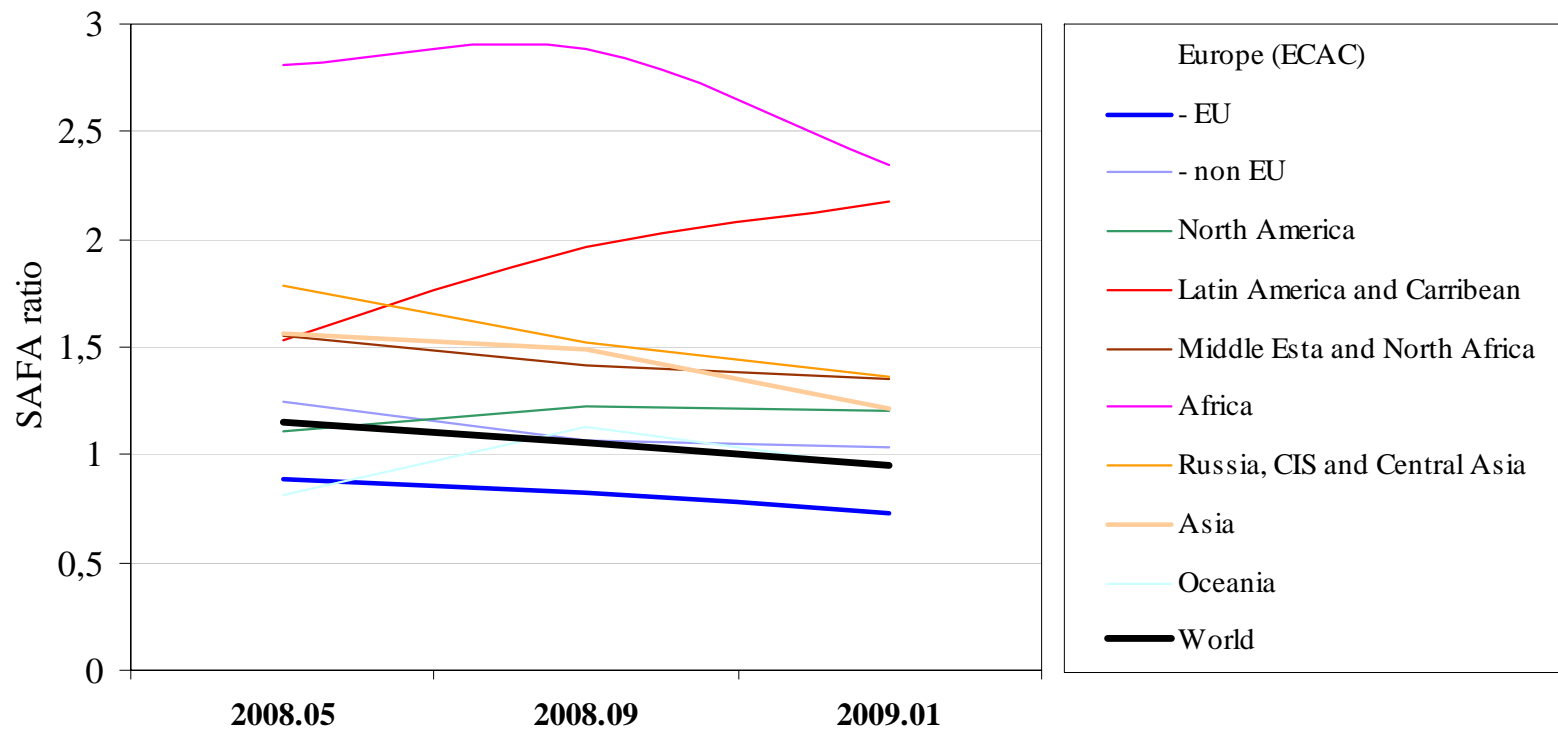
## **II. Safety is a necessary condition for growth**

### **Safety Assessment of Foreign Aircraft**

- **42 members of ECAC have agreed to carry out ramp inspections under a common programme called Safety Assessment of Foreign Aircraft (SAFA).**
- **Criteria: the operations and maintenance of the inspected aircraft are assessed against ICAO SARPs**
- **In 2008, 1000 airlines of some 130 ICAO States were inspected in the framework of the SAFA programme, leading to 8000 reports.**
- **What are the results ?**

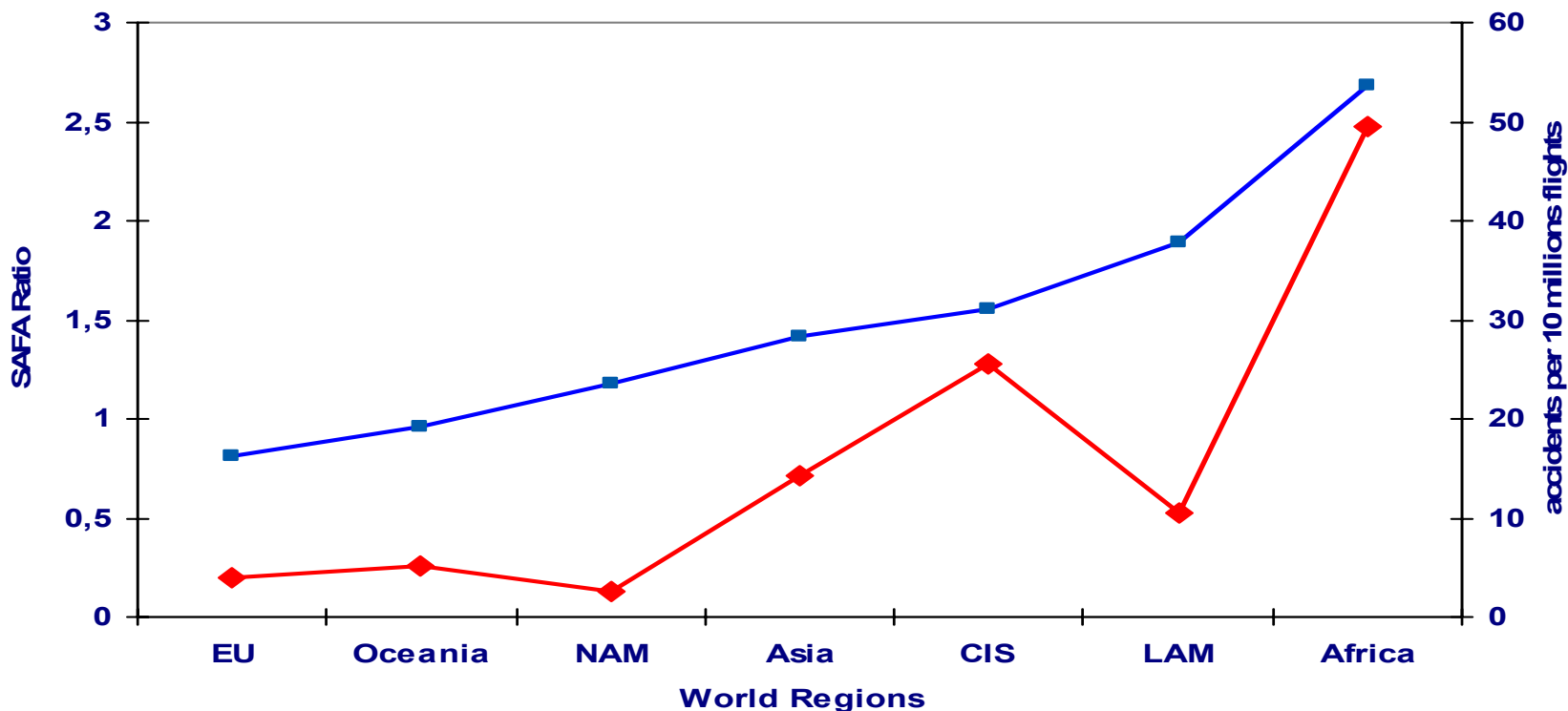
## II. Safety is a necessary condition for growth

### SAFA Ratio Evolution per World region (2008)



## II. Safety is a necessary condition for growth

- SAFA ratio (2008) and accident ratio (2000 – 2007)



Source: EASA

—■— SAFA (2008) —◆— Accident Ratio (2000-2007)

## ■ **II. Safety is a necessary condition for growth**

### ICAO USOAP audit

- **ICAO has developed a Universal Safety Oversight Audit Programme (USOAP) in order to verify the compliance of ICAO contracting states with ICAO SARPs.**
- **More than 80 states have been audited so far under this programme.**
- **An advanced alert mechanism has also been developed to identify the States with « significant safety concerns » even before the final report is issued.**
- **What are the results ?**

## II. Safety is a necessary condition for growth

### ICAQ USOAP Lack of Implementation of SARPs

Position	B.L.	S.C.	Countries	Country Code	% L.I.
			<b>Congo</b>	<b>CG</b>	
			<b>Guinea-Bissau</b>	<b>GW</b>	
			<b>Malawi</b>	<b>MW</b>	
			<b>Zambia</b>	<b>ZM</b>	
<b>* 1</b>			<b>Djibouti</b>	<b>DJ</b>	<b>96,10</b>
2			Gabon	GA	93,28
3			Equatorial Guinea	GQ	91,00
4			Central African Republic	CF	90,38
5			Democratic Republic of Congo	CD	87,14
6			Sierra Leone	SL	86,64
7			Swaziland	SZ	83,66
8			Angola	AO	80,76
9			Benin	BJ	80,22
11			Rwanda	RW	79,14
12			Leshoto	LS	78,95
13			Comoros	KM	76,26
14			Liberia	LR	75,72
15			Mali	ML	75,05
17			Botswana	BW	72,89
19			Madagascar	MG	69,99
20			Libyan Arab Jamahiriya	LY	69,73

Over the African Average

23			Cameroon	CM	59,41
26			Niger	NE	56,22
27			Ivory Coast	CI	55,60
28			Burkina Faso	BF	51,62
31			Namibia	NA	50,53
32			Sudan	SD	50,17
38			Seychelles	SC	41,90
39			Senegal	SN	41,72
44			Mauritius	MU	37,26
45			Togo	TG	35,94
46			Ethiopia	ET	35,57
48			Ghana	GH	34,28
58			Nigeria	NG	26,05
60			South Africa	ZA	22,87
65			Gambia	GM	18,64
78			Egypt	EG	8,62

Below the African Average

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-  Countries Analysed by the EU WG on USOAP
-  Country which has carriers in the black list
-  Country which has an ICAO Significant Safety Concern
-  Country under analysis



- Average 33 African Audited Countries: 61,01
- ▶ Average of World Audited Countries: 44,28 (at 06/03/09)

## **II. Safety is a necessary condition for growth**

### ICAO USOAP audit

- **When analysing the lack of effective implementation of ICAO standards, African countries have on average significantly less good results than the world average.**
- **It is not only an issue about compliance. Safety is really at stake. ICAO found that deficiencies reported in ICAO USAOP audits are correlated to fatal accidents (more than 93% correlation for the critical elements pertaining to the implementation of the State Safety Oversight System – CE6, CE7 and CE8)**



### **III. Diagnostic of safety oversight deficiencies**

#### **EU Analysis of ICAO USOAP audits**

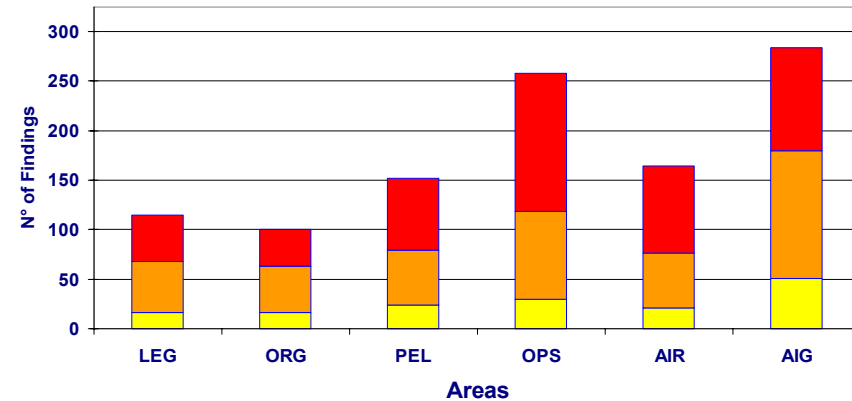
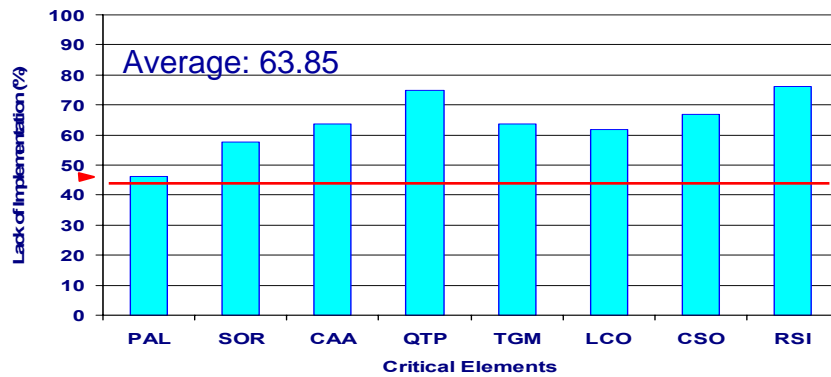
- **In 2007 the Commission constituted a working group of European Experts to analyse the USOAP audit reports. This analysis provides an overview of the States' oversight capabilities and is a part of the decision making process.**
- **The Commission uses the analysis of USOAP Audit reports for the following purposes:**
  - **Launching of dedicated technical assistance projects to the countries concerned;**
  - **SAFA targeting**
  - **Regulation 2111/2005 EC (operating restrictions within the EC);**
- **What are the results for Africa?**



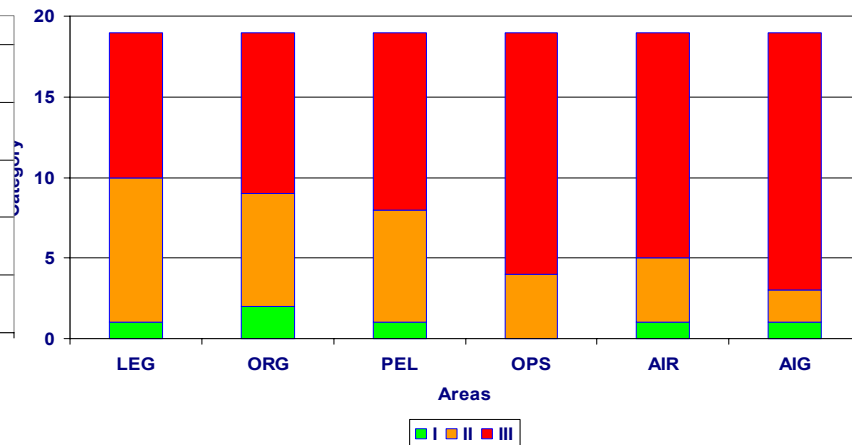
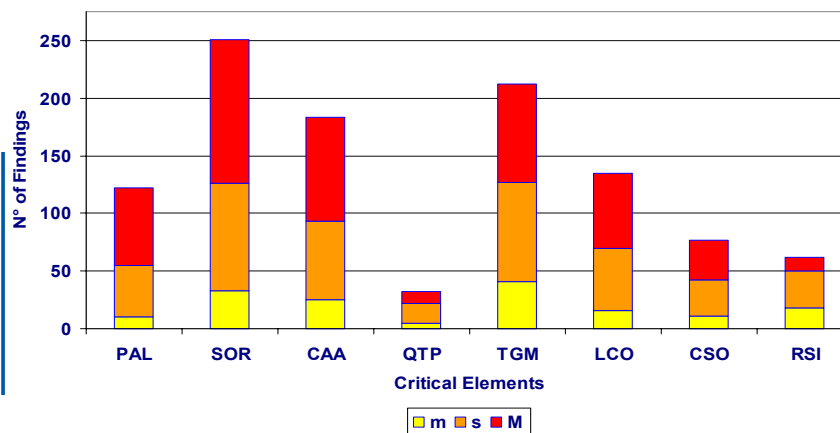


### III. Diagnostic of safety oversight deficiencies

#### Analysis of the ICAO USOAP Audits for Africa



Average of the World : 44,28





### **III. Diagnostic of safety oversight deficiencies**

- **The analysis of ICAO safety oversight audits shows that many African States have not established effective safety oversight systems.**
- **The lack of resources and of sufficient aviation activity limits the ability of some African states to establish or maintain sufficient qualified personnel to exercise safety oversight in accordance with international standards;**
- **Too often, specific operating regulations are not in place or not aligned with latest ICAO standards**
- **Aircraft Operations (Annex 6) as well as accident investigations (Annex 13) appear as the most problematic areas**





### **III. Diagnostic of safety oversight deficiencies**

- **The absence of an appropriate system for the certification and the continued surveillance of air operators and resolution of safety concerns results in the absence of assurance that air transport operations are conducted in compliance with ICAO standards;**
- **Practices of delivering air operator certificates (AOCs) on request without requiring applicants to demonstrate their capability and without prior inspections and controls must be avoided and effectively prevented;**
- **Progress by States in the implementation of action plans to timely resolve the ICAO USOAP audit findings should be significantly intensified.**



## **IV. Operational restrictions: a last resort measure**

### **Why imposing operating restrictions within the EU ?**

- **Common Approach towards Safety (airlines declared to be unsafe in one Member State cannot be deemed to be safe in another).**
  - **Objectives**
    - **Preserve the highest safety standards.**
    - **Inform Passengers.**
  - **Fight “Flags of Convenience”.**
  - **On the basis of a single decision: The European Commission (assisted by the Air Safety Committee).**
- ▶ **Regulation (EC) No 2111/2005**

## **IV. Operational restrictions: a last resort measure**

### **Regulation (EC) No 2111/2005**

- **Common Criteria for decisions based on ICAO safety standards for non EU carriers and EU regulations for EU carriers.**
  
- **3 categories**
  - **Deficiencies detected on aircraft and/or.**
  - **Lack of ability of the airlines to solve deficiencies and/or.**
  - **Lack of ability of the competent oversight authorities to fulfil their obligations.**

## **IV. Operational restrictions: a last resort measure**

### **Regulation (EC) No 2111/2005**

- **The sources used to derive such information are:**
  - **ICAO USOAP reports, accepted corrective actions plans and all relevant material regarding its implementation.**
  - **Audit reports of the aviation authorities of third countries.**
  - **Accident related information regarding the resolution of safety concerns.**
  - **Results of SAFA ramp checks and corresponding corrective actions.**
  - **Visit reports of the European Commission / the European Aviation Safety Agency.**

## **IV. Operational restrictions: a last resort measure**

### **Regulation (EC) No 2111/2005**

- **The process contains various safeguards:**
  - **Transparency and speedy procedure.**
  - **Exchange of information and views with all EU Member States.**
  - **Joint consultations (EC and EU MS) with the aviation authorities of third countries.**
  - **Right of defence for the airlines/authorities concerned.**
  - **The Commission examines all data provided and collected before a reasoned decision is taken.**
  - **All regulations are subject to judicial control.**

## **IV. Operational restrictions: a last resort measure**

### **African Countries currently affected by an Operational Ban (10)**

- **Angola**
- **Democratic Republic of Congo**
- **Equatorial Guinea**
- **Liberia**
- **Sierra Leone**
- **Swaziland**
- **Some airlines in Comoros,**
- **Some airlines in Gabon,**
- **Some airlines in Rwanda**
- **Some airlines in Sudan.**

## **IV. Operational restrictions: a last resort measure**

### **Regulation (EC) No 2111/2005**

- **A decision is a measure of last resort taken only when the airlines and the competent authorities cannot demonstrate sufficient reactivity to comply with ICAO standards, in full transparency and with due respect to the rights of defence**
  
- **The measures are meant to be temporary**
  - **Operating restrictions should be removed as soon as Airlines and the related competent authorities in charge of their oversight can demonstrate significant progress in achieving compliance with ICAO applicable standards**
  - **Several examples of success stories (PIA, Mahan Air, etc.)**

## V. EC Technical Cooperation Approach to Africa

### What action plan to improve aviation safety in Africa ?

- Africa is huge and there are many cultural, legal, economic, political and infrastructure differences between its countries
- Recent political developments (establishment of the African Union) show that Africa is strengthening a continental approach
- It is difficult to establish a common air safety approach to the whole Africa due to the different levels in which its air safety situation is managed at the national and regional levels
- The proposed approach takes account of the different African regions according to their air safety level
- The situation in the Mediterranean countries (mainly Maghreb and Mashreq) appears better. Some African countries (Morocco, Egypt, Kenya, South Africa) have a good/very good safety performance.

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Africa: Four level approach**

#### **I. Neighbourhood Policy (Mediterranean countries)**

#### **II Continental – African Union, AFCAC**

#### **III Regional – main Regional Economic Communities:**

- **Western Africa: ECOWAS/UEMOA**
- **Central Africa: CEMAC/ECCAS**
- **Southern and Eastern Africa : EAC/SADC/COMESA**

#### **IV. National:**

- **Countries or airlines affected by operating restrictions in the EU**
- **Main aviation partners**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Africa: Euro Mediterranean Countries**

- **The Mediterranean countries are covered by the “Common Aviation Area” with neighbouring countries**
- **This policy is based on regulatory convergence with international and European regulations governing civil aviation in compliance with ECAA (European Common Aviation Area) standards**
- **The final objective is to integrate the aviation markets in the region**
- **Safety is one of the cornerstones of this approach**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Sub-Saharan Africa: First Step**

- **Inclusion of the air transport sector into the global EU development and trade policy framework**
- **EU Strategy for Africa: Towards a Euro-African pact to accelerate Africa's development (adopted in October 2005)**
- **EU- Africa Partnership on Infrastructure (adopted in July 2006) (The New Partnership for Africa's Development (NEPAD) has submitted a list of aviation projects for a total of 244 million USD; Final beneficiaries have to submit formal requests to the Delegations)**
- **Economic Partnership Agreements with Regions (under negotiation)**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Sub-Saharan Africa: Second Step**

- **Inclusion of the air transport sector into the programming of the 10th European Development Fund (EDF) for the period 2008-2013**
- **10th EDF budget – 22,7 billion €**
- **Programmes are demand driven - priorities are identified by the beneficiaries**
- **Draft Regional Strategy Papers under finalisation**
- **Country Strategy Papers and National Indicative Programmes currently under way**

## V. EC Technical Cooperation Approach to Africa

### Proposed action plan for Sub-Saharan Africa: Third Step

- Policy dialogue accompanied by concrete Technical Cooperation proposals

### Continental level (AU/AFCAC)

- Policy dialogue (negotiation guidelines, African designation)
- Technical cooperation project, including:
  - support to the creation of the Executive Agency of the Yamoussoukro Decision
  - assistance to the development of competition rules
  - institutional support (seminars, training)
  - Initial Budget: 750.000 € earmarked from 9th EDF

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Sub-Saharan Africa: Third Step**

- **Policy dialogue accompanied by concrete Technical Cooperation proposals**

### **Regional level**

- **Policy dialogue with Regions (renegotiation of bilateral agreements, Regional African designation)**
- **TC project, including:**
  - **Support to the creation or strengthening of regional safety oversight organisations**
  - **Strengthening of Regional Civil Aviation bodies (transfer of regulatory and operational know-how)**
  - **Assistance to ASECNA (ATM)**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed action plan for Sub-Saharan Africa: Third Step**

- **Policy dialogue accompanied by concrete Technical Cooperation proposals**

### **State level**

**(countries affected by the operating restrictions, main aviation partners)**

- **Strengthening Civil Aviation Authorities (CAAs) with respect to their air safety oversight capabilities, e.g. through Twinning projects, training and seminars for top management, inspectors training, etc.)**
- **Establishing independent, properly empowered and appropriately funded national CAA (example: Air Safety improvement project for DRC)**
- **Willingness to explore closer relations with main aviation partners (South Africa, Senegal, Kenya, Ethiopia, Nigeria, Guinea-Conakry)**

## V. EC Technical Cooperation Approach to Africa

### Proposed air safety action plan for Africa

- **Promote the coordination between organisations active in the area of technical cooperation in aviation safety (EC, EASA, ICAO, FAA, etc.). This would concentrate the efforts and would avoid the duplication of initiatives**
- **Extend the dialogue between all stakeholders,**
  - **the European Commission and EASA on the EU side**
  - **AFCAC, Regional Economic Communities, the COSCAPs, the Regional Agency for Air Safety of East Africa (CASSOA) and states concerned on the African side**
- **Promote the institutional arrangements between the civil aviation administrations of the African and European countries through twinning projects in order to strengthen the African civil aviation authorities with respect to their air safety oversight capabilities**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed air safety action plan for Africa**

- **Support the harmonisation of safety regulations at regional and possibly continental level**
- **Promote the creation or the strengthening of regional/sub-regional aviation safety agencies**
- **Support the capacity-building of civil aviation authorities, in particular regarding staff training and funding**
- **In a number of selected countries, support the establishment of autonomous aviation safety agencies**
- **Involve the aviation industry in the development of technical cooperation projects in the field of air safety.**

## **V. EC Technical Cooperation Approach to Africa**

### **Proposed air safety action plan for Africa**

- **African countries which have air carriers subject to operational restrictions within the EU shall have priority in receiving the EC assistance to support the efforts undertaken so as to remove these restrictions as soon as possible;**
- **The Commission will also cooperate with African countries identified by ICAO as having a lower air safety performance to implement prevention mechanisms (such as pre-warning) in order to possibly avoid further operational restrictions.**



## VI. CONCLUSIONS

- **The EU sees Africa as a key area within its aviation policy**
- **Improving safety on the Continent is a priority as it is a condition for the development of the whole aviation sector**
- **Technical cooperation focusing on enhanced safety, but also comprising security, airports, ATM should be actively developed through an Action Plan with concrete resources for technical cooperation**
- **The EU seeks an enhanced dialogue with continental and regional organizations encompassing a comprehensive approach.**





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# Thank you for your attention

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