



March 2019 Air Transport Outlook

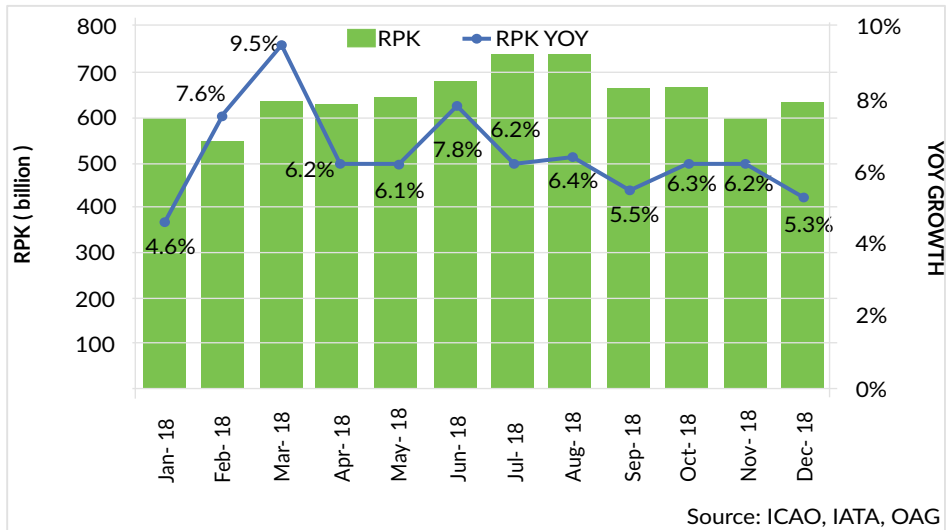
“Better skies for Africa”

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Global airline industry performance

World passenger traffic average growth for 2018 is around 6.45% compared to an average of 7.38% in 2017 (ICAO). According to IATA, from January to October 2018, Europe, Asia Pacific and China (domestic) in spite of the slowdown, denoted the highest contribution to global traffic growth in respective order. Africa, despite its weak contribution to total growth, has recorded an evolution of more than 6% YoY of RPK.



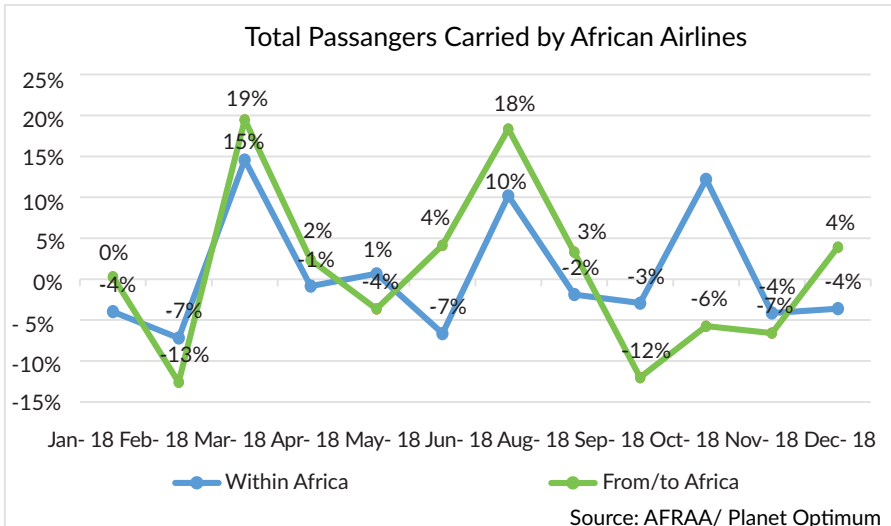
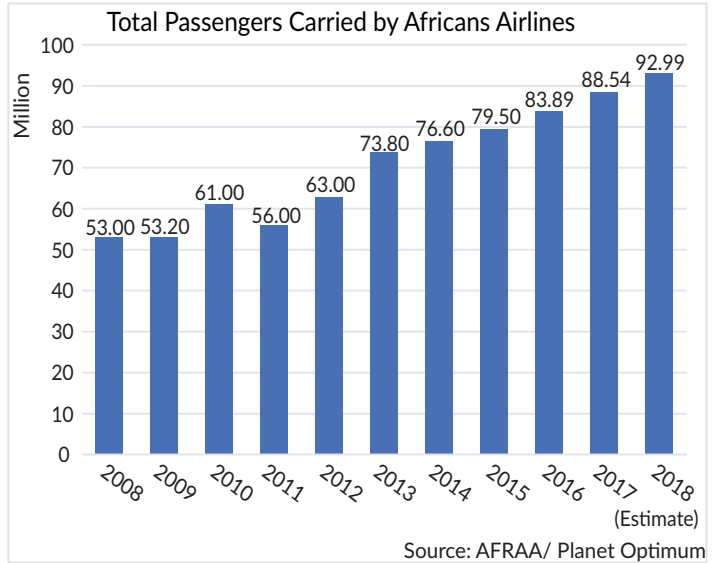
African Airline industry performance

Africa remains a market of huge potential but with very important challenges. Start-ups and most of the existing airlines struggle to overcome the obstacles that have repeatedly prevented most African airlines from succeeding; as a result, net profit margin will stay negative in 2018 and 2019 according to IATA.

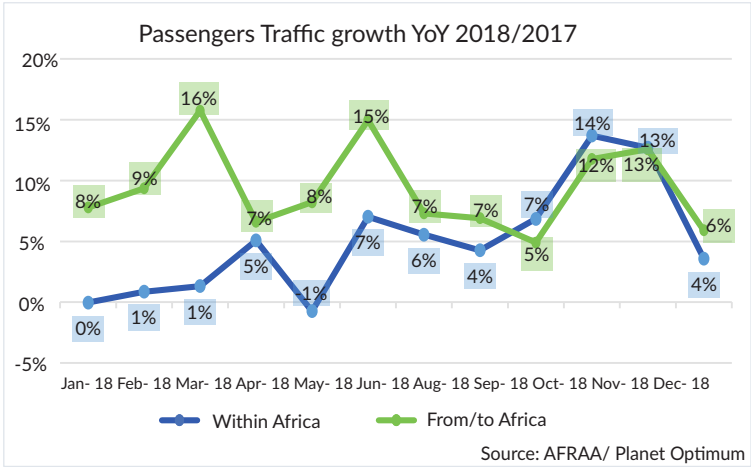
Foreign airlines dominate the African intercontinental traffic and have a huge competitive advantage. However, the long list of airline failures has not dissuaded more start-ups like Senegal Airlines or Green Africa Airways from entering the market. Ethiopian Airlines has been a standout and is continuously growing. Royal Air Maroc has also emerged and is now the first African member of Oneworld.

Passenger Traffic growth in 2018

The estimated number of PAX for 2018 is 92.99 million, representing a growth of 5.03% YoY. The traffic is continuously growing except a drop in 2011 which can be explained by the Arab spring crisis in North Africa.



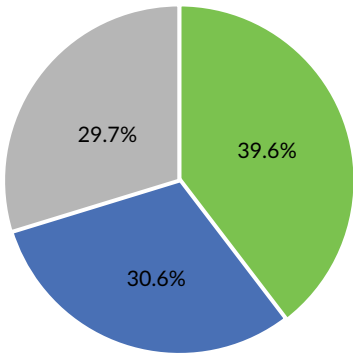
The average growth rate for 2018 is 0.72% compared to 0.70% on 2017. The peak periods are around the months of March-April, July, October and December.



The average growth rate 2018/2017 is 7.8%, with the highest rate registered in October and November (13%).

Passenger Distribution

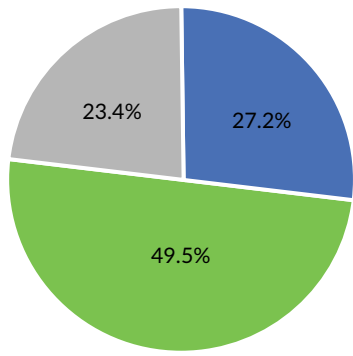
African airlines passengers Distribution 2018



■ Regional ■ Intercontinental ■ Domestic

Source: AFRAA/ Planet Optimum

AFRAA airlines passengers Distribution 2017

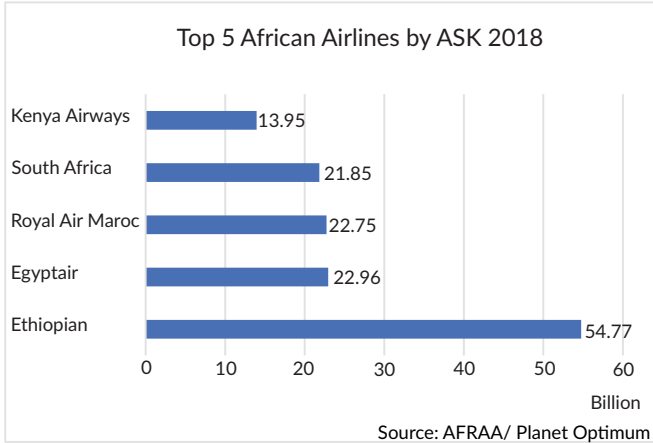


■ Regional ■ Intercontinental ■ Domestic

Source: AFRAA

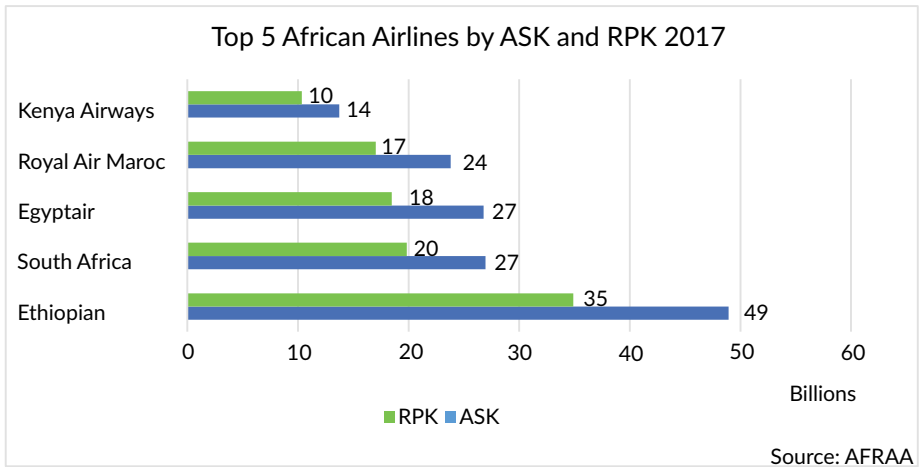
For all African airlines in 2018, the regional traffic is the most important with almost 40%. Domestic and intercontinental have almost the same level. For AFRAA member Airlines in 2017, the intercontinental traffic is dominant with 49.5%. In fact, AFRAA have the biggest African airlines carrying most of the intercontinental traffic.

African airlines ranking by ASK for 2018



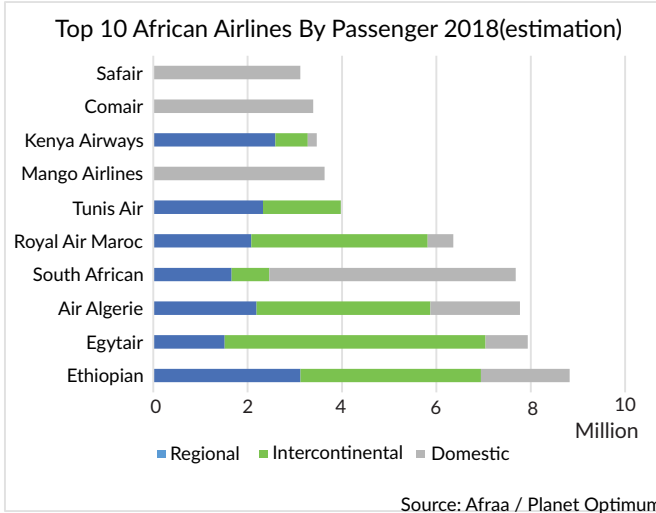
Ethiopian airlines is on the top with more than 100 aircrafts and 107 international destinations. Kenya airways network is more concentrated in Africa with smaller distances, which could explain its position.

AFRAA airlines ranking by ASK and RPK for 2017



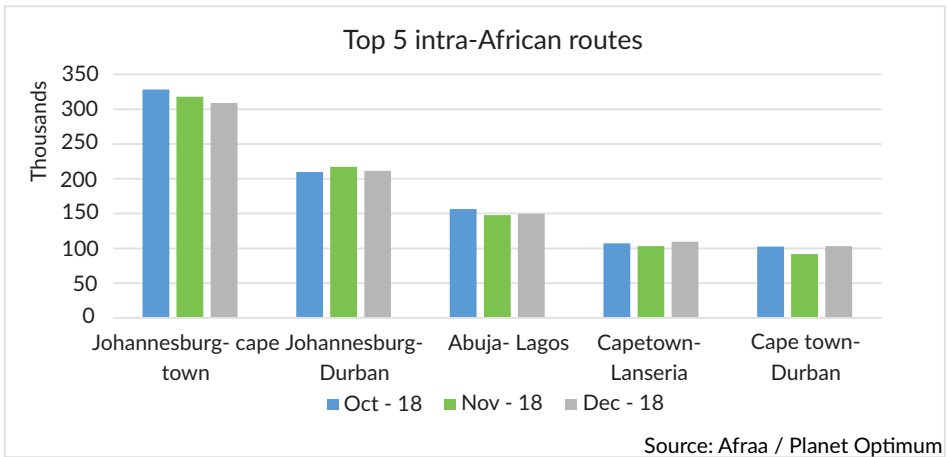
Ethiopian Airlines is the larger AFRAA member airline, both in RPK and ASK.

African airlines ranking by traffic for 2018

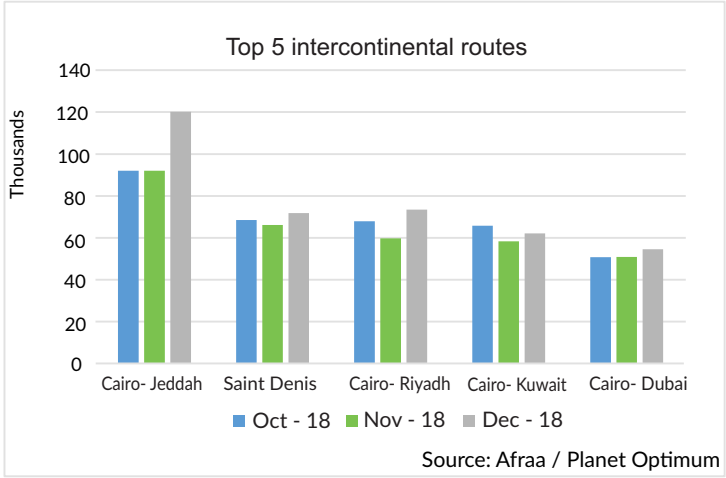


We have 3 South-African airlines in the top 10 offering domestic destination essentially. This shows the strength of domestic traffic in this country. Ethiopian airlines remains on top in terms of traffic.

Routes ranking by traffic (Oct - Dec) 2018

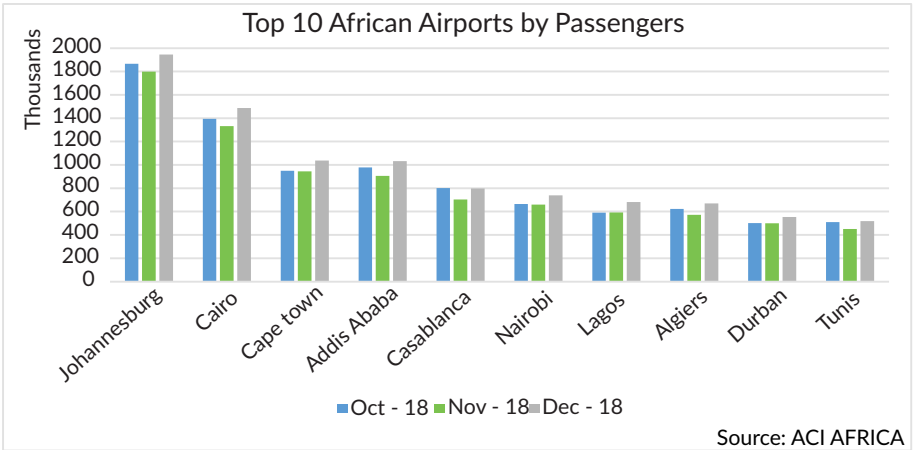


All the top 5 intra-African routes are domestic, showing the potential of domestic traffic. SouthAfrica is leading, followed by Nigeria.



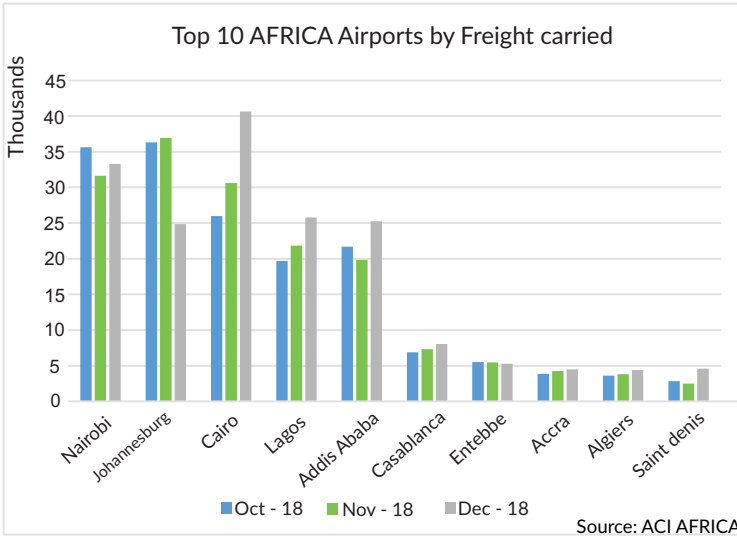
This top 5 shows the strength of traffic between North-Africa and Middle-East, particularly from Cairo. EgyptAir is the leading carrier on these routes.

Airport Ranking by Passengers Traffic (Oct – Dec) 2018



Johannesburg and Cairo are the busiest airports in Africa, handling respectively 287 and 175 flights daily. Addis Ababa and Nairobi are also part of the top ranking carrying more than 5 million passengers every year.

Airport Ranking by Freight Traffic (Oct-Dec) 2018



From October to December 2018, Jomo Kenyatta international Airport has handled more than 100 thousand tons of freight. Johannesburg and Cairo are following with respectively 98 thousand and 97 thousand each.



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Methodology:

According to OAG methodology, we calculated the total number of all possible connections between inbound and outbound flights on 7 important African hubs in each region, on a weekly basis.

After that we computed an average number of connection daily.

The rules selected for the computation are as follows:

- Single connections only to/from the chosen airports;
- Minimum Connection Time from OAG table;
- Maximum Connection Window of 12 hours

Airport	Inbound flights/ Day (average)	outbound flights/ Day (average)	Index
Johannesburg	321	461	41551
Cairo	227	342	22335
Addis Ababa	172	273	13790
Nairobi	176	262	13483
Casablanca	166	198	11906
Lagos	81	121	2306
Abidjan	48	60	1161

Data source: AFRAA / Planet Optimum

Johannesburg OR Tambo have the highest connectivity index with an average of 41551 possible connections (national and international) daily within a 12hours window.

East Africa dominant airports Addis Ababa Bole and Nairobi Jomo Kenyatta have similar potential, with respectively 13790 and 13483 connections daily.

Abidjan have the smallest index comparatively, since it handles far fewer flights.

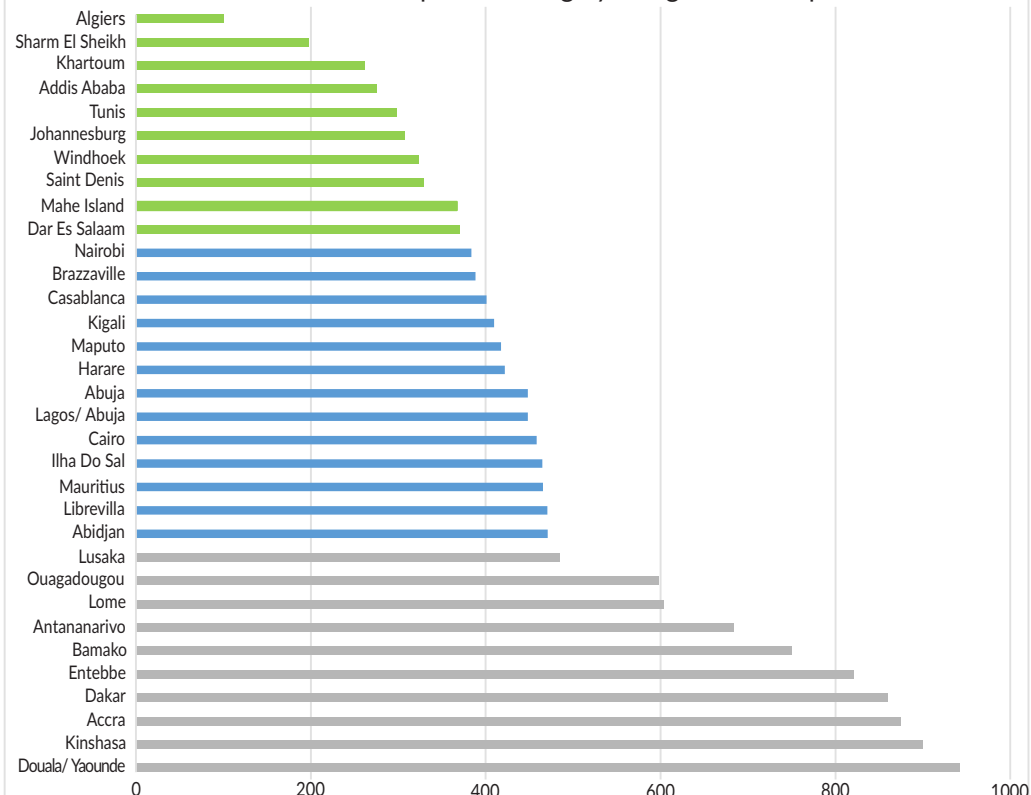
Airport Charges

Methodology:

A comparative study based on a single aircraft type applied to all airports of more than 500 thousand passengers yearly. The type of aircraft chosen is the B737, the most popular aircraft type in the region. Following the applied criteria:

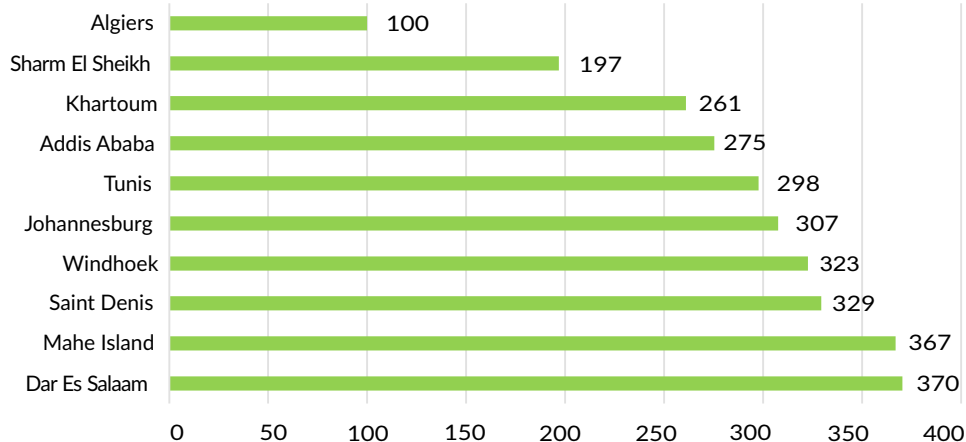
Cur.	USD.
Aircraft Type	B737
MTOW	70.08 Metric Ton
Variable Specification	
Flight Type	International
Origin & Destination Pax	100
Total Departing Pax	100
Parking Time	2 Hour
Boarding Bridge time	1 Hour
Arrival Time	12:00
Cargo	0 Kilograms

African airports ranking by charges index- April 2019



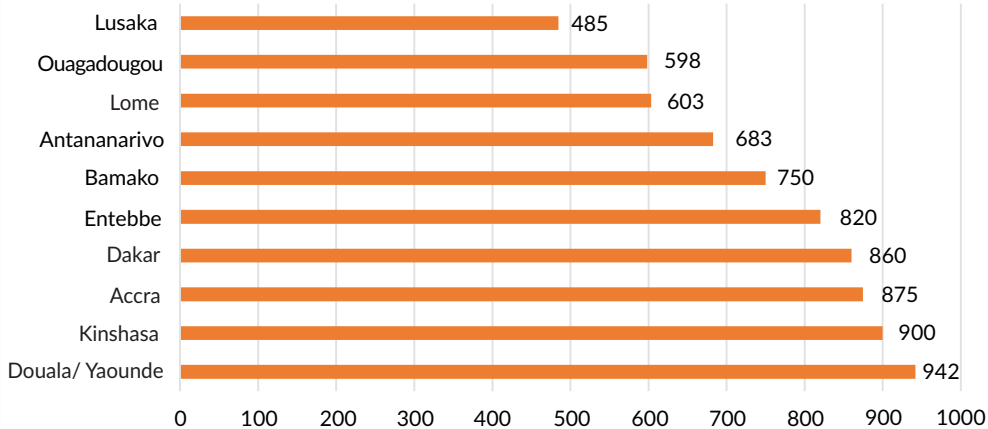
Source: AFRAA / IATA

Top 10 cheapest African Airports- April 2019



Source: AFRAA / IATA ACIC

Top 10 most expensive Africa Airports - April 2019



Source: AFRAA / IATA ACIC

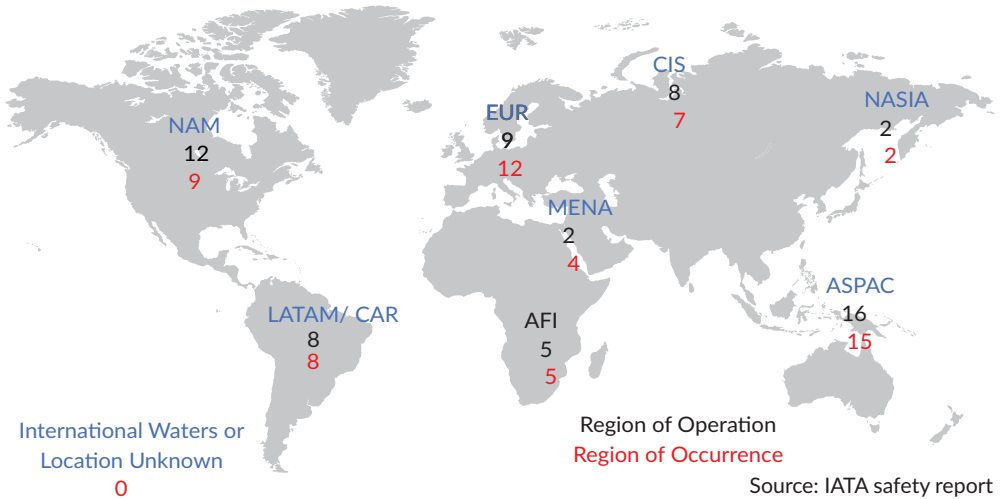
Cameroon airports are the most expensive among the main African airports with an index of 942 which represent 9 times the index of Algiers (100), the cheapest. Most of the most expensive airports are from west and central Africa with index of 600 and more, that is around 6 times the cheapest. Lusaka and Abidjan are the closest to the average with an index of respectively 485 and 470.

Negotiated fuel price for AFRAA airlines index by airports as of August 2018

Rank	Airport	Index
1	Bangui	310.71
2	Bissau	254.39
3	Livingstone	245.72
4	Ndola	232.82
5	Moroni	226.65
6	Dzaoudzi	214.12
7	Lilongwe	210.33
8	Brazzaville	208.87
9	Freetown	198.40
10	Lilongwe	197.93
11	Zanzibar	190.62
12	Malabo	188.06
13	Bujumbura	186.89
14	N'Djamena	185.62
15	Antananarivo	184.45
16	Khartoum	177.99
17	Bobo Dioulasso	169.88
18	Niamey	167.13
19	Libreville	164.52
20	Addis	163.33
21	Lubumbashi	163.13
22	Goma	162.20
23	Lusaka	162.08
24	Pemba	160.43
25	Victoria Falls	159.90
26	Nampula	159.62
27	Walvis Bay	158.37
28	Monrovia	156.76
29	Mogadishu	150.38
30	Kigali	149.90
31	Sao Tome	149.88
32	Juba	149.75

Rank	Airport	Index
33	Mwanza	148.67
34	Harare	147.37
35	Ouagadougou	147.14
36	Cotonou	144.96
37	Maputo	141.55
38	Enugu	139.91
39	Kinshasa	139.79
40	Bamako	138.38
41	Douala	137.15
42	Yaoundé	136.45
43	Conakry	134.57
44	Banjul	134.48
45	Entebbe	133.52
46	Banjul	132.81
47	Abuja	132.29
48	Gaborone	128.59
49	Kilimanjaro	128.35
50	Dar es Salam	125.62
51	Abidjan	125.44
52	Lagos	124.82
53	Accra	124.39
54	Lomé	124.20
55	Djibouti	122.69
56	Dakar	122.15
57	Windhoek	120.46
58	Johannesburg	119.14
59	Mauritius	119.07
60	Durban	116.26
61	Cairo	116.10
62	Mombasa	111.68
63	Nairobi	111.68
64	Cape Town	111.51
65	Luanda	100

The most expensive airport in terms of fuel price is Bangui with an index which is 3 times that of Luanda which is the cheapest. More than 56% of the airports are under the average price index which is 156.



In 2018 the AFI region recorded 5 aircraft accidents against 62 globally, which represents 8%.

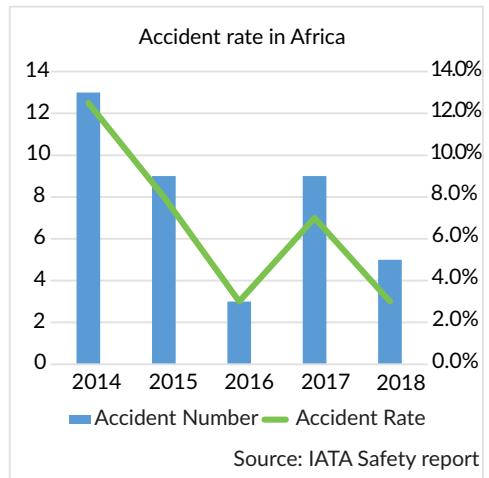
2018 Accident: 2.71
2014-2018 Accident rate: 6.04



	Jet	Turboprop
2018	3.80	1.90
2014-18	4.22	7.54

Source: IATA Safety report

The accident rate in sub-Saharan Africa in 2018 is 2.71 accidents per 1 million flights, among which 1.9 involving turboprop aircrafts.



The number of accidents in Africa dropped in 2018 from 9 to 5 which represents a decrease of 4% compared to the year 2017.



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