



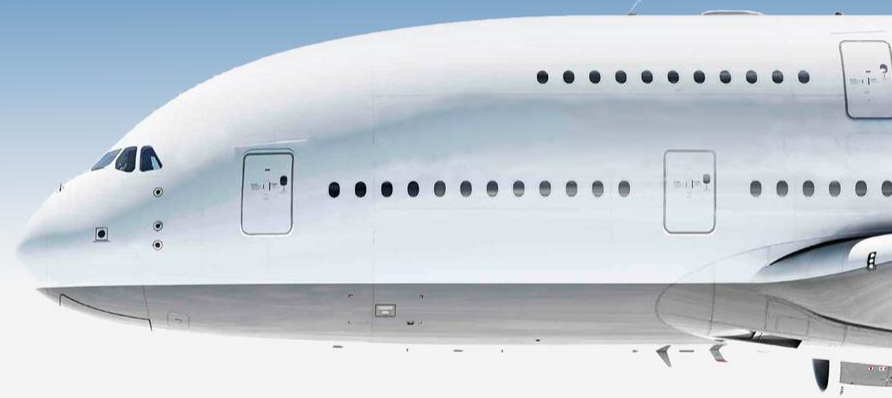
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INFRASTRUCTURE GAP ANALYSIS - AERODROMES



Marco Merens

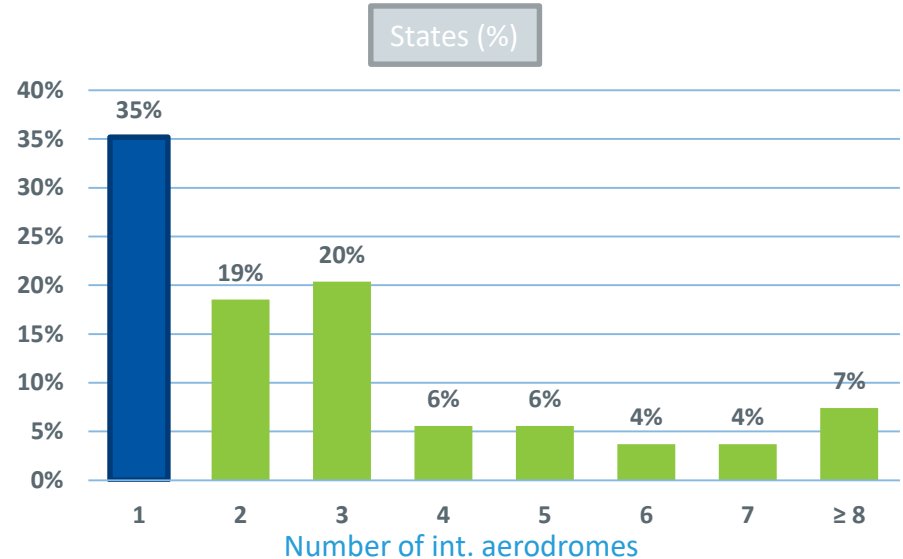
Chief, Integrated Aviation Analysis Section, ICAO

March 2019



Situational Summary for Africa

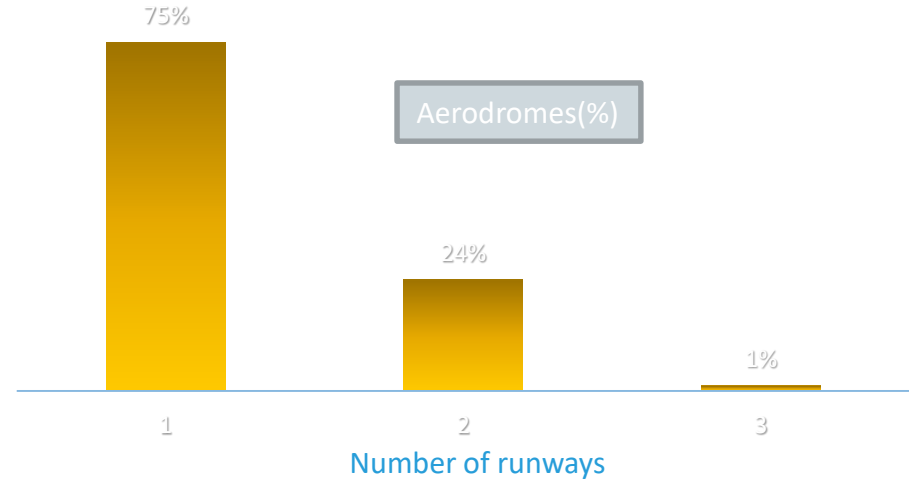
- 182 International Aerodromes
- 35% of States have only one International Aerodrome
- 7% of States have more than 8 international aerodromes





Situational Summary for Africa

- 75% of international aerodromes only have 1 runway





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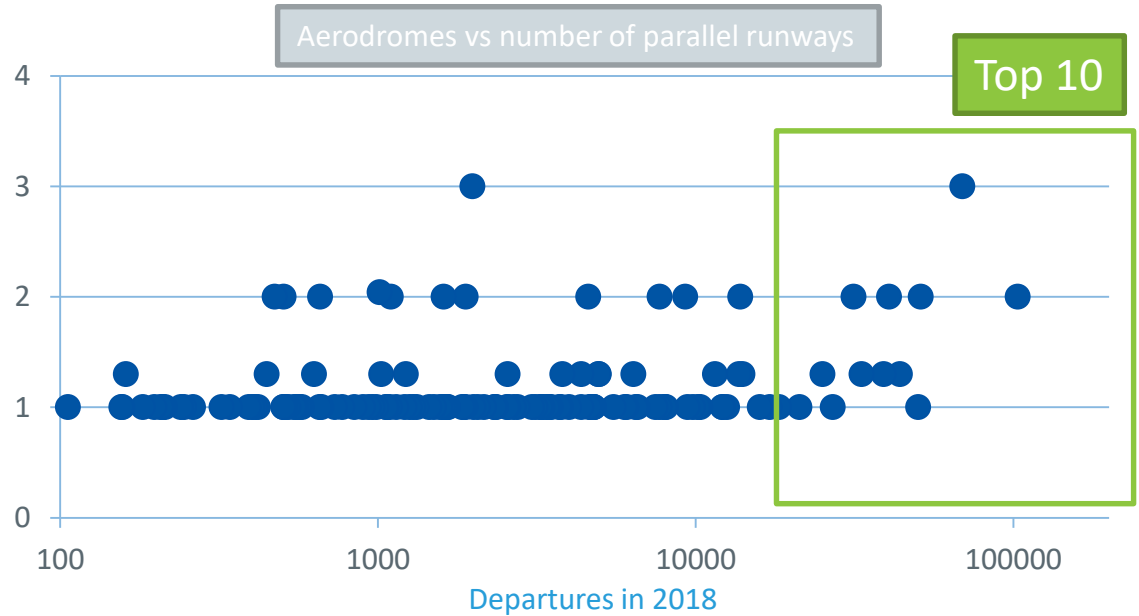
2. Aerodrome Capacity





Runway Capacity

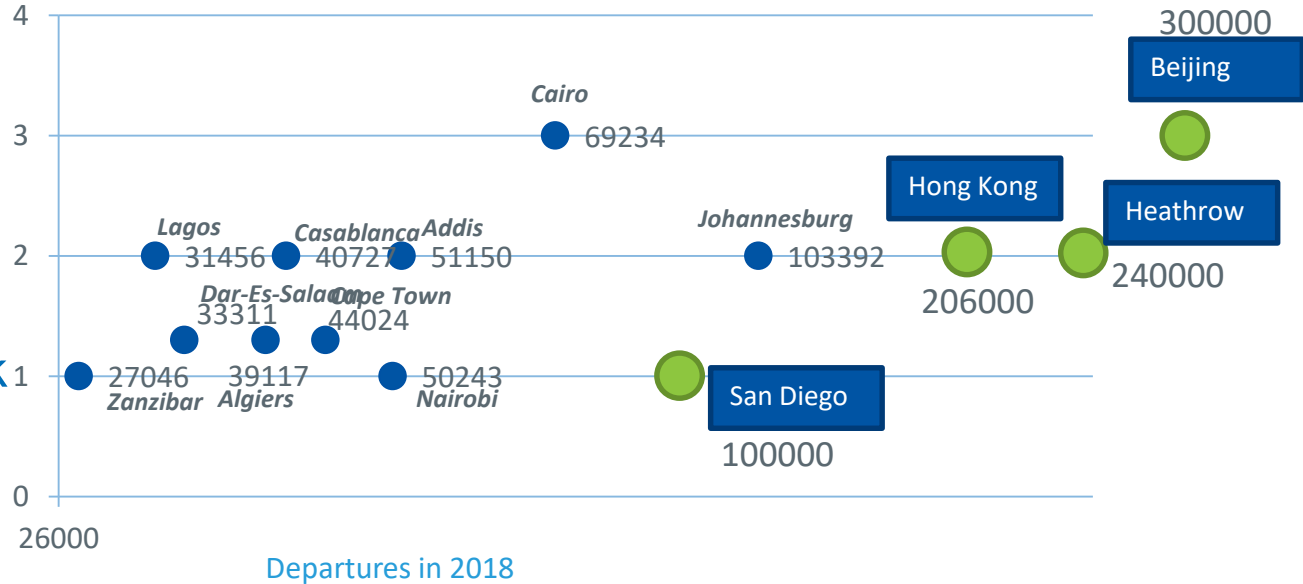
Number of parallel runways is a basic metric of aerodrome capacity





Runway Capacity – Top 10

Aerodromes vs number of parallel runways

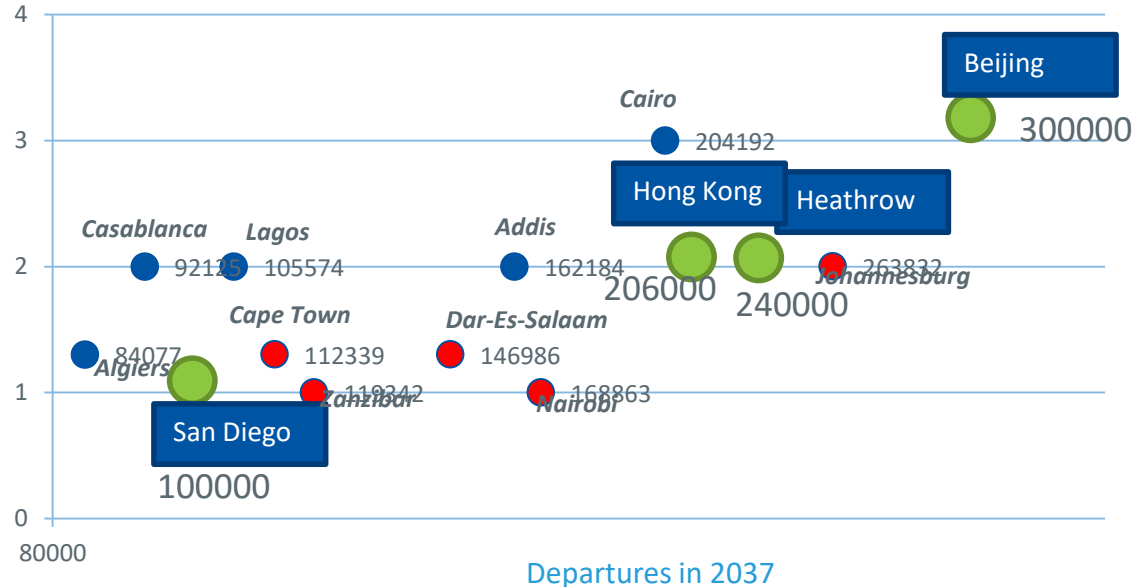


- Number of parallel runways is a basic metric of aerodrome capacity
- Each parallel runway may produce over 100k departures annually



Aerodrome Capacity – Top 10 Forecast

Aerodromes vs number of parallel runways



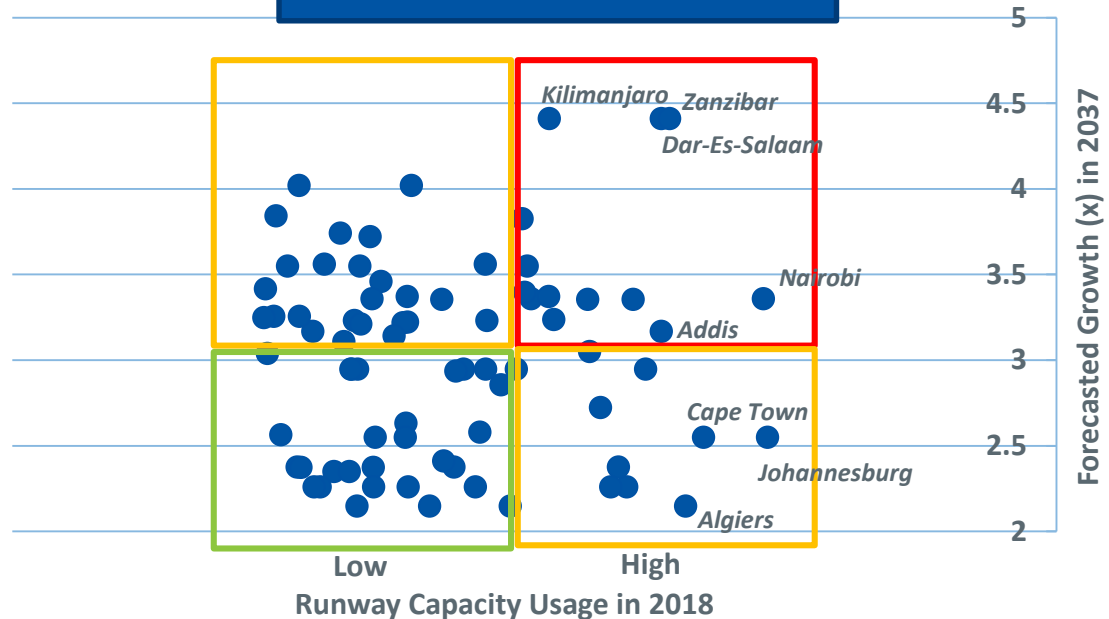
- By 2037, 5 aerodromes will have overpassed their current runway capacity
- Most aerodromes will stay largely within their capacities



Capacity Usage vs Growth

4 Action Quadrants

- Where capacity usage is currently high
 - If high growth, urgently invest in **new infrastructure**
 - If medium growth, work on **efficiency and services**
- Where capacity usage is currently low
 - If growth is high, work on **efficiency**
 - If growth is low, work on **air transport development and safety and services**





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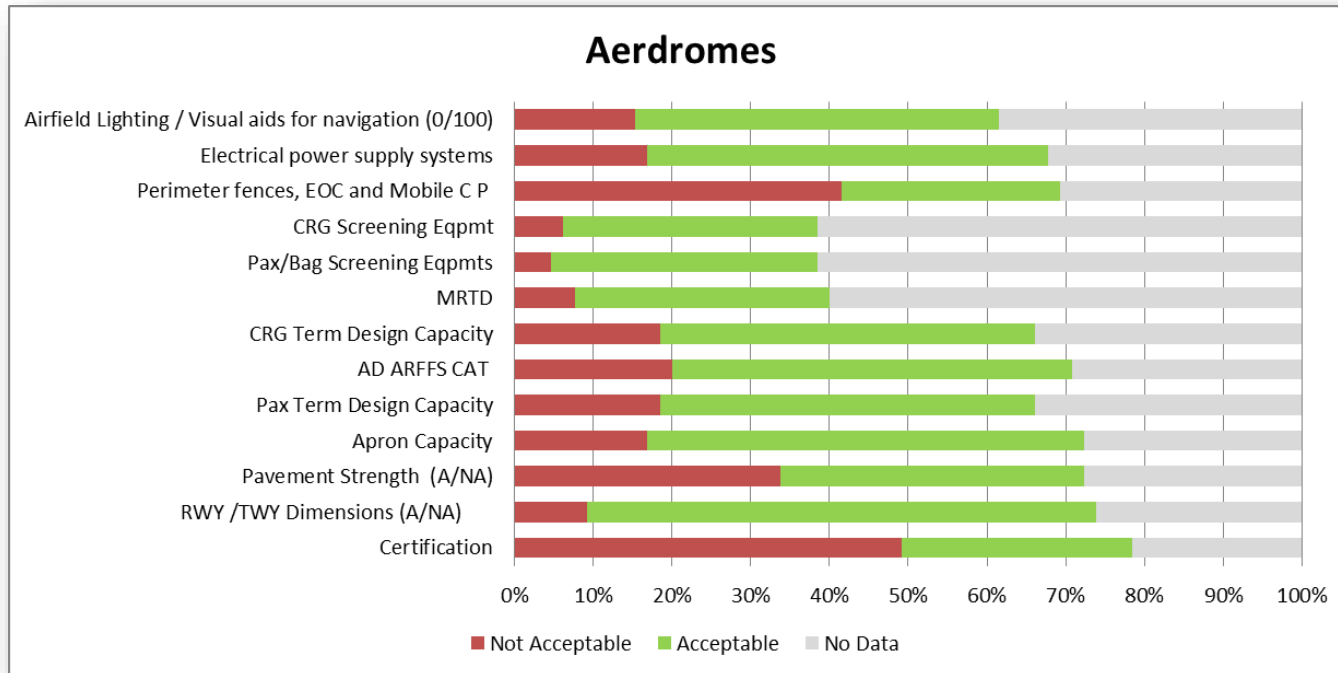


3. Gap Analysis





Implementation Gaps





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Gap Analysis Summary

With regard to the major gaps for international aerodromes:

- A majority are **not certified**,
- 40% have insufficient **pavement strength** with regard to intended use
- 35% have insufficient **aerodrome emergency planning** and **perimeter fencing**
- 20% have insufficient **aerodrome capacity**



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