



Decoding Politics in International Aviation: Influencing Commercial Aviation Growth Across the African Continent

Prakash Limbu, Undergraduate Student & Dr Tyler Spence, Faculty Mentor/Co-Author
 Department of Aeronautical Science, Embry-Riddle Aeronautical University, Daytona Beach, FL

Abstract

Since colonial expansion of the West, the African continent has been a place of international political contention through competing foreign interests such as imperialist colonialism. However, upon the movement of independence, relatively new individual countries lack the resources for infrastructure developments, impacting connectivity and globalization through commercial aviation. The potential for growth continues to be a point of focus and investment for airlines and countries around the globe. Recent news reports highlight efforts by the Russian Federation to impact Western migration from North Africa through flight access and opportunity. There have been efforts by the United States to expand liberalized agreements with countries in Africa. China, too, has invested millions of dollars in African aviation infrastructure and increased travel opportunities to the continent. This research examined the growth of aviation activities of the China, and Russia, and the United States across the African continent.

Introduction

Flag carrier prominence at international airports are a source of national pride and a demonstration of external influence. Air Service Agreements (ASAs) are the way in which these carriers receive permissions to operate on such routes. As global influence and globalization intersect, the visibility in development of the African States is increasing geopolitical competition among powers. China, Russia, and the United States (US) have all demonstrated regional power interests in Africa and aviation is a necessary aspect of expansion and connectivity. The ability to compete visibly through flag carrier access can be important, but more fundamentally, a signed ASA means bilateral diplomatic engagement was already forged. Additionally, a liberalized access agreement, being the least restrictive, requires trust between States that ensures an ability to communicate between governments.

Research Questions

1. In what ways have the China, Russia, and the US aimed at expansion for international aviation across Africa in the 21st Century?
2. To what extent is geopolitical competition evident as a component of commercial aviation access opportunities and operations across Africa?

Materials and Methods

The International Civil Aviation Organization (ICAO) maintains an online World Air Service Agreement (WASA) Database of air services agreements. We collected these data and transformed them for analysis and visualization using common software tools including Excel, Tableau, and PowerPoint. ICAO records 3 forms of ASAs ranging from most restrictive in competition to open market competition: Traditional—Transitional—Full Liberalization (Open Skies). To investigate these questions, we analyze bilateral Air Service Agreements (ASAs) and total inbound and outbound flight numbers between these three world powers and participating African countries, year over year since 2003 to 2020. Data were evaluated through 2020 due to lack of updates for recent data and global impacts due to COVID-19.

References

Bizot, O. (2023, January 18). Moscow recently announced that it will increase the number of flights from North Africa and the Middle East to Kaliningrad. Euronews. <https://www.euronews.com/myeurope/2023/01/18/russia-to-weaponise-migration-to-eu-with-increased-flights-into-kaliningrad-report-warns>

International Civil Aviation Organization. (2019). *Investment in aviation infrastructure key to unlocking aviation growth in Africa*. <https://www.icao.int/Newsroom/Pages/Investment-in-aviation-infrastructure-key-to-unlocking-aviation-growth-in-Africa.aspx>

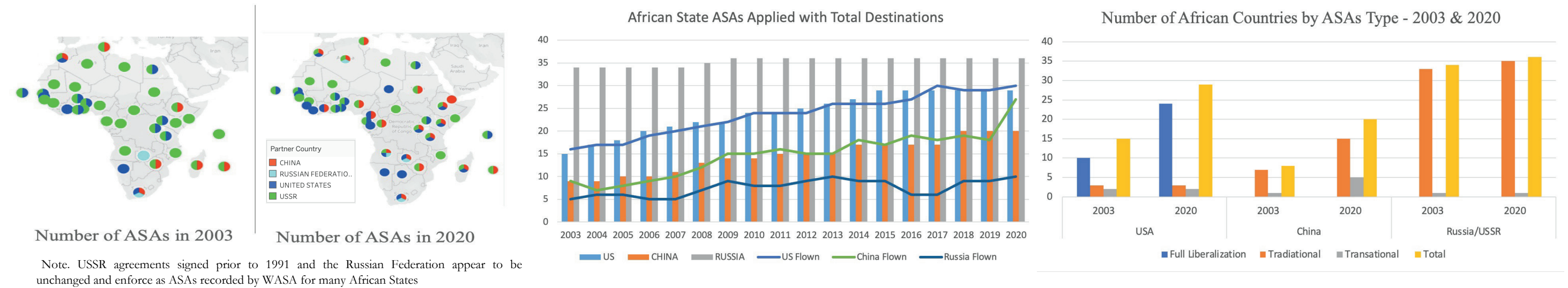
International Civil Aviation Organization. (n.d.). *World Air Services Agreements*. <https://data.icao.int/WASA/AboutWASA/UserGuide>

U.S. Department of State. (n.d.). *Civil air transport agreements*. <https://www.state.gov/civil-air-transport-agreements>

Yamanouchi, K. (2022, December 16). Delta to launch flights to Cape Town, South Africa. <https://www.ajc.com/news/atlanta-airport-blog/delta-to-launch-flights-to-cape-town-southafrica/OLOKFE6KTS5GF7ANQIMYVMSH6V4/>

Zhou, Y. (2019, July 28). Air traffic between China and Africa has jumped 630% in the last decade. Quartz. <https://qz.com/africa/1675287/china-to-africa-flights-jumped-630-in-the-past-nine-y>

Results Summary and Findings



ASA Competition in Africa 2003-2020

Country	ASA 2003	ASA 2020	Flight Ops Years	Competition Duration
EGYPT	Traditional (1964/MOU 1997) Traditional (Missing) Traditional (1958)	Traditional (MOU 2016) Traditional	2003-2020 ALL	18 Years ALL
MOROCCO	Full Liberalization (2001) Traditional (1998) Traditional (1962)	Full Liberalization Traditional Traditional	2003-2020 2005-2020 N/A	16 Years US/Russia
ETHIOPIA	N/A Transitional (2003) Traditional (1977)	*Full Liberalization (2005) Transitional Traditional	2018-2019 2010-2020 2011-2020	10 Years US/China 2 Years China/Russia/US
SOUTH AFRICA	Transitional (1996) Traditional (1999) Transitional (1992)	*Transitional Traditional Traditional	2003-2020 2012-2020 2020	9 Years US/China 1 Year ALL
MADAGASCAR	N/A Traditional (1997) Traditional (1977)	*Full Liberalization (2004) Traditional Traditional	2003-2020 2016/2020 N/A	4 Years US/China
KENYA	N/A N/A Traditional (1983)	*Full Liberalization (2008) *Traditional (2005) Traditional	2018-2020 2008-2009/2013-2020 N/A	3 Years US/China
ANGOLA	N/A N/A Traditional (1976)	*Traditional (2010) *Traditional (2008) Traditional	2016-2018 2011-2017 2003-2010	2 Years US/China
NIGERIA	N/A N/A Traditional (1967)	N/A *Transitional (2014) Traditional	2003/2006-2020 2020 N/A	1 Year US/China
TANZANIA	Full Liberalization (1999) N/A Traditional (1978)	Full Liberalization *Traditional (2008) Traditional	2018-2020 2020 N/A	1 Year China/Russia
TUNISIA	N/A Traditional (2002) Traditional (1964)	N/A Traditional Traditional	2004-2020 2020 2011	1 Year US/Russia
COTE D'IVOIRE	Traditional (1978) N/A N/A	Traditional *Transitional (2018) N/A	2018-2020 N/A N/A	
CONGO	N/A N/A Traditional (1964)	N/A *Transitional (2018) Traditional (1964)	2020 N/A N/A	
GABON	N/A N/A N/A	*Full Liberalization (2004) *Traditional (2020) N/A	2020 N/A N/A	
CAMEROON	N/A N/A N/A	*Full Liberalization (2006) *Traditional (2011) N/A	NO FLIGHTS ALL	
RWANDA	Full Liberalization (2000) N/A Traditional (1973)	Full Liberalization *Transitional (2018) Traditional	NO FLIGHTS ALL	
ZAMBIA	Traditional (1946) N/A Traditional (1977)	*Full Liberalization (2010) *Traditional (2007) Traditional	NO FLIGHTS ALL	

Notes. China = Red; Russia = Green; United States = Blue; *denotes a change in ASA structure after 2003.

1. Only 1 country (Egypt) had consistent flight ops between 2003 and 2020 and all operated under traditional ASAs.
2. Since 2003 China and the US have engaged in same-country operations most frequently, with the US favoring an Open Skies approach with countries where previously they had no agreement in 2003.
3. Since 2003, there have been more total flights and bilateral agreements, year over year, with the China and the US while Russia has remained inconsistent and stagnant.
4. The year 2003 saw very little competitive activity with mostly traditional ASA frameworks in few places; by 2020, China and the US were competing along 9 routes while Russia appeared in 3.
5. There were 6 countries with no flights; ASAs signed with at least 1 partner country of interest — Botswana (US), Cameroon (China, Russia, US), Equatorial Guinea (US, Russia), Namibia (US), Rwanda (China, Russia, US), and Zambia (China, Russia, US).
6. Countries without ASAs by 2020 — Burundi, Comoros, Eritrea, Eswatini, Lesotho, Malawi, Niger, Republic of Congo, São Tomé and Príncipe, and South Sudan.
7. Between 2003 and 2020 Russia did not publicly update any African ASA even where operations occurred, whereas China added 10 new ASAs (4 transitional, 6 traditional) while the US pursued 6 new Open Skies ASAs, 1 transitional ASA and 1 traditional ASA.
8. China and the US updated and engaged in ASAs in similar locations even when there appeared to be no intention of flights by either party suggesting geopolitical and adversarial undertones