



ICAO

## INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Twenty-Third Meeting of the AFI Planning and Implementation Regional Group  
(APIRG/23)**
**Agenda Item 4: Other Air Navigation Issues**
**4.1 Industry Initiatives and Other Air Navigation Matters**
**THE NEED FOR EGNOS IMPLEMENTATION DEFERRAL IN AFI**
*(Presented by AFRAA)*
**SUMMARY**

This working paper presents African Airlines Association concerns relating to the SBAS infrastructure requirement to cover the entire AFI airspace and onboard equipage challenges against COVID-19 devastating effect on Africa's aviation sector. Therefore, the paper requests the deferral of SBAS implementation in the Region.

Action by the Meeting: Consider the African airlines' raised concerns and defer SBAS implementation for a minimum of five years in AFI Region.

<i>Strategic Objectives</i>	Air Navigation Capacity and Efficiency, Economic Development of Air Transport and Safety
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**1. INTRODUCTION**

1.1 In March 2020, the COVID-19 pandemic led limited travel restrictions including closure of State borders and nations are still recording economic recessions. This public health constraint has significantly harmed the aviation industry and African economies and African airlines are unlikely to receive the required State subsidies as the African States are financially constrained.

1.2 Therefore, being in survival mode, the airlines' focus is on cash-protective initiatives and negotiating the payment conditions of financial dues with lessors, service providers, aircraft manufacturers, and revisit their investment plans.

1.3 Unfortunately, the full recovery of the passenger traffic would take at three to four (4) years.

**2. DISCUSSION**

2.1 AFRAA Technical Operations and Training Committee referred to both APIRG/22 Conclusion 22/39 and APIRG/22 Conclusion 22/40 and reviewed SBAS implementation in AFI.

2.2 The Committee assessed four SBAS systems' infrastructure, including WAAS, EGNOS, MSAS, and GAGAN, implemented in the USA, Europe, Japan, and India respectively.

2.3 The four SBAS reviews demonstrated that Africa being a vast continent, would require a more extended infrastructure than the combined ones of the USA, Europe, Japan, and India. Indeed, Africa landmass accommodates the USA, Europe, Japan, India, plus China. Both the USA and China areas are in a similar range of 9.6 million KM<sup>2</sup>.

2.4 The table below portrays the four SBAS infrastructures' sizes and explains AFRAA Technical Operations and Training Committee's decision to share its findings with APIRG.

Infrastructure Items	WAAS	EGNOS	MSAS	GAGAN	China SBAS	AFI SBAS
Land References	38	40	4	15	38?	135?
Control Centers	4	3	2	3	4?	16?
Uplink Stations	6	6	2	3	6?	23?
Geo-stationary Satellites	3	3	2	3	3?	14?
Ground link	The land references, control centers, and uplink stations must be linked with reliable circuits.					

2.5 While waiting for the continental independent CBA outcome, the question is whether African States and ANSPs should commit scarce financial resources to deploy EGNOS in AFI. Furthermore, there is need to ascertain the impact such investment have on air navigation charges for the next 30 years.

2.6 Beyond the infrastructure cost, an airplane without ADS-B out requires about US\$ 200,000 retrofit cost for onboard equipment and two to three days ground time. Consequently, African airlines would invest US\$ 50 million for a fleet of 250 jet aircraft operating on the continent only.

2.7 Aviation must restore the traveler's confidence. Implementing AUC flagship projects such as AfCFTA and SAATM will accelerate COVID-19 recovery and sustain aviation development. However, affordable airfares are imperative to stimulate traffic growth. Competitive fares require all stakeholders' cooperative efforts. Air carriers, airport operators, Air Navigation Service providers, and Civil Aviation Authorities must improve their respective productivities to decrease operating costs significantly so that passengers enjoy slashed airfares in Africa.

### 3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Acknowledge the COVID-19 Pandemic devastating effects on the aviation industry and African economies, and concur to the deferral for at least five years of EGNOS implementation in AFI, and amend APIRG/22 Conclusion 22/40 accordingly;
- b) Consider the completion of the overdue independent continental CBA as a prerequisite of SBAS implementation in AFI.

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