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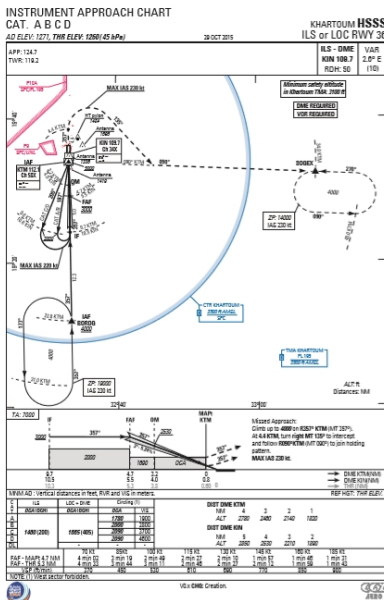
Restructuring Sudan Airspace: a new step achieved with scenarios delivery

After a one-week workshop in France last April and a five-day meeting in Khartoum last week, SCAA Project Team and French Team came to agree on 2 scenarios which will be tested during Fast Time Simulations. Discussions with bordering countries Civil Aviation Authorities will be enhanced an already well-structured network.

Procedures Approval Support

CGX AERO and DSN A services met SCAA members in Khartoum from 27th to 29th February 2016 to support SCAA for the instrument flight procedure approval.

The aim of the 3 days was to explain the approval methodology, by a generic process presentation and to assess how to apply this kind of process in SCAA organization. An example of this process application was performed for Khartoum IFP.



All instruments flight procedures for Khartoum Airport (Conventional and RNAV approaches, STARs and SIDs) have been presented so that all participants understand well

the project and why certain choices have been done.

Then, the different steps of a generic approval process have presented. The approval for the case of the procedures for Khartoum airport has been discussed. Following these meetings, DSN A services will provide a report containing several recommendations.

The safety assessment for Khartoum has been also presented. These steps of safety assessment and approval are essential before the publications. The airspace restructuring project takes into account the future TMAs and procedures. That is why both projects have to be managed in the same time.

Samuel BEGOUIN
- Project Manager -

Airspace and Route Structure to meet Future ATM Requirement

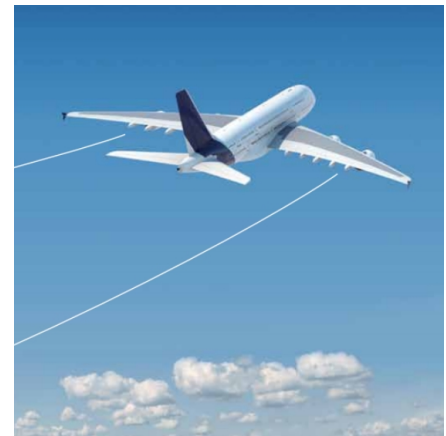
Aviation plays a main role in the development of Sudan economy and infrastructure, especially in the backdrop or environment characterized by the introduction of an increasing rate of new technologies.

Most of these challenges can no longer be met at the country level, but require cost-effective, harmonized solutions on regional and sub-regional levels which, in turn, demand

close coordination and cooperation of neighbouring States.

Objective

To safely and efficiently accommodate an increase in air traffic, as well as respond to the diversified needs of operators, the environment and other economic and social issues, to provide the greatest operational and performance benefits.



Concept

The concept of modernizing the ATM system is primarily focused on upgrading the airspace and route structures, for over-flight traffic, flights between city pairs, and terminal area arrival and departure routes.

GNSS will be the driving enabler, with Performance Based Navigation (PBN) procedures being applied wherever possible.



This advanced information management technology is being used to functionally combine the ground-based and airborne system elements into a safe, fully integrated, interoperable and robust ATM system.

A large portion of commercial aviation now consistently utilizes this type of navigation without reference to terrestrial based navigation aids. Predominately the larger asset based companies, use satellite navigation as one of their prime means of navigation. Boeing and Airbus have adopted GPS as part of the standard fitment for their aircraft.

The concept is also designed to ensure that a policy of determining the capacity of the ATS system can be met, with the dynamic ability to address capacity issues from an ATS staffing and route structure aspect on a continuous basis.

With ICAO's direction to Performance Based Navigation/Required Navigation Performance (PBN/RNP) and a transitioning from route based navigation to area based navigation (RNAV), the goal is to enable new aircraft applications such as User Preferred Routes (UPRs), direct tracking etc, whilst meeting capacity issues can be strategically and tactically met and managed.

SCAA may also consider approval for the satellite-based system (GPS) as a primary means of navigation (as has been done in other States) and

also approve the use of GPS as a supplemental IFR en route navigation aid. This will be the first step towards the phasing out of conventional terrestrial based radio navaids such as Very High Frequency (VHF) Omni Directional Range (VOR), Non-Directional Beacons (NDB) and Distance Measuring Equipment (DME) which are becoming increasingly expensive to deliver and maintain.

However, although the international direction towards using GNSS as the primary means of navigation is clear, there remains a smaller number of aircraft not equipped with GPS. There is then an opportunity to further the transition to GNSS, and reduce terrestrial navigation aids to a backup functions only.

This development will be undertaken within a framework of safety, environment and business cases, and cost benefit analysis.

Mohamed Eltayeb Idriss
- ANS Inspector -

Free Route Concept

During the April Workshop in France, the SCAA Project Team and the French Team had plenty of interesting discussions together on various subjects.

One of them was concerning the Free Route Concept.

Marie-Laurence BOSSY, a French recognized specialist of the matter, organized for the teams a valuable presentation on the European implementation of Free Route Airspace.

Consequently, the two teams agreed to see together whether the implantation of FRA -Free Route Airspace- is efficient and profitable within the Sudanese Airspace.

A Free Route Airspace is a specified airspace within which users may freely plan and fly a route between a defined entry point and a defined exit point, in order to reduce flight time and to minimize fuel consumption. In such airspace, flights remain subject to air traffic control like in any controlled airspace.

Eric-Guillaume-Jugnot
- French Expert -

Upcoming events

- **May 29 to 30:** Cairo conference with bordering countries Civil Aviation Authorities, IATA, ICAO and Airlines.
- **June 13 to 21:** Fast Time Simulations in France.

