

ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

Agenda Item 7 Aeronautical air-ground and air-to-air : communications

STATUS OF UGANDA'S AIR-GROUND COMMUNICATIONS

(Presented by Uganda)

SUMMARY

Uganda is in the process of implementing a VHF extended range system. The new system addresses issues of channel spacing, modulation, and reliability of links for the remote VHF stations.

1. INTRODUCTION

1.1 Uganda is concerned about congestion in the very high frequency (VHF) a/g bands and is taking note of technological developments. This paper highlights the improvements Uganda is making to address the issues of modulation, channel spacing and reliability of links for the VHF extended range network being installed.

2. PARTICULARS

2.1 Existing VHF air-to-ground communication in equipment in Uganda is still using VHF DSB-AM at 25 kHz channel spacing. However, a project for extension of VHF coverage in the country has provisions for conversion of modulation from DSB-AM to digital modulation by software upgrade. The system is a 5-carrier offset system with planned stations at Entebbe, Kasese, Masindi, Gulu and Soroti. (The system can be reconfigured to set the channel spacing at 8.33 kHz and disabling carrier offset operation). The implementation is in two phases the first of which covers four stations and will be completed by the end of November 2003. The fifth station will be implemented in 2004.

2.2 To eliminate dependence on the unreliable terrestrial links, Uganda is among the States that are participating in the very small aperture terminal (VSAT) project code named North Eastern AFI VSAT (NAFISAT). This project is being coordinated by International Air Transport Association (IATA) and ICAO Eastern and Southern Africa (ESAF) office in Nairobi. The countries involved are Egypt, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda. Although NAFISAT was primarily intended for ATS/DS and AFTN (North Eastern AFI VSAT) links between States in the region, Uganda hopes to utilize it for communication links with the remote VHF stations as well.

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