

## **Massawa International Airport – Fit for Intercontinental Flights**

***Alexander Herring\****

**ADB from Belgium, part of the Siemens Group, has been commissioned in 2001 by Civil Aviation Authority, Asmara, Eritrea, to equip the Massawa International Airport with an airfield lighting system. The project included the lighting for the new airport; including runway and taxiways that go with it, apron floodlighting, as well as the respective high and low voltage electrical and power equipment. The turnkey facilities have been handed over in 2003.**

Eritrea is a country arising from a long period of uncertainty. Determined to improve its destiny, Eritrea is now on the way to develop the economical future in steady growth. Using transport by air, development of the country's airport infrastructure proved crucial to reach these goals. Therefore Eritrea developed and constructed a new airport near the Red Sea: Massawa International Airport. The end customer is the Civil Aviation Authority of the Ministry of Transport and Communication, headquartered in Asmara, Eritrea, which operates the Massawa International Airport. The construction of the airside and landside of the airport started in 1999 and all works on the airport are scheduled to be completed in 2004. The airport's airside comprises a runway of a length of 3500 meters – enabling it to comply with the International Civil Aviation Organization's (ICAO) Category I standard, and be used by large-capacity aircraft to take off and land.

Within the scope of the works Siemens/ADB was responsible for the supply and turnkey installation of the complete airfield lighting system including runway and taxiway lighting system, the runway taxiing guidance signs, apron floodlighting, the respective high and low voltage electrical and power equipment for 3 substations and the remote control and monitoring system. The lighting equipment, which comprises two sequenced flashing approach lighting systems, around 500 approach and runway lights, more than 170 taxiway lights, as well as 30 guidance signs and 20 distance markers, have been connected to the power supply and control systems by over 150 km of primary, secondary and communication cables. The installation of an emergency generating set will ensure an uninterrupted supply in the event of a power failure. The airport is equipped with a new PC-based control system ALCS (Airfield Lighting Control System) – accessible either in the tower or, in an emergency, in a separate operations control room – to control and monitor the lighting. Safe and secure, round-the-clock operation of the runway will in future be guaranteed assuming a minimum visibility of 550 meters. Massawa International Airport will thus be the first airport in Eritrea to comply with ICAO Category I (CAT I) on both approach sides.

Moreover, the scope of the order included services, such as: system engineering, project management, financial engineering, installation works, supervision of installation, commissioning, as well as in factory and on-the-job training. Alongside Siemens' Industrial Solutions & Services and ADB's competence in

airport engineering, as well as the valuable support provided by local partners such as DM Electrical PLC, Asmara, Eritrea, to whom the installation work has been subcontracted, ultimately tipped the balance in favour of ADB to win the contract. With the contracted works nearing final completing, the Massawa International Airport shall soon be officially inaugurated. Then, Massawa International Airport will become one of the most modern airports in the Horn of Africa, serving regional as well as international flights.

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