

# South African Airways Technical Team Fly Higher with Hytera TETRA Solution

**User** South African Airways Technical Ltd's (SAAT), South Africa

Market segment Transportation

Project time 2018

**Products** 2,000 TETRA PT580H Plus + 150 PTC760



# Introduction >>

SAAT existing analogue radio system was not longer fit for purpose. Hytera replaced it with a TETRA trunking system, which not only greatly improved the security, capacity, and reliability of SAAT's communication system, but provided it with a much more flexible system.

# Background >>>

SAAT is a full-service maintenance, repair and overhaul (MRO) organization, the largest of its kind in Africa. In 2018, South African Airways were required to migrate from their analogue MPT1327 UHF ground radio communications system to a digital radio platform. The initial roll out covered Johannesburg, but there are plans to cover the whole South Africa in the future.

# The Challenge >>

The main problem with the existing analogue MPT1327 trunking communication system was that it was simply too old. Its voice quality and network capacity were not able to meet the communication demands of a modern airport.

Furthermore, the after-service arrangements for the continued upkeep and maintenance of the analogue radio system were out of date and it was becoming increasingly difficult, if not impossible, to get hold of replacement parts. The analogue radio terminals designed for use with the MPT1327 system were no longer being manufactured and so it was not possible to replace broken radios or buy new ones.









Security is a major concern especially at airports where security levels have been stepped up around the world. The old MPT1327 radio system could not provide the levels of secure communication the airport required. A new radio network capable of providing guaranteed levels of security, reliability and available was required.

# The Solution >>

A solution from Hytera was chosen to replace the MPT1327 network with a TETRA digital trunking communication system. TETRA provides a larger data transmission rate and can support a higher user capacity compared with MPT1327. Three Hytera TETRA base stations were used to provide signal coverage across the footprint of Johannesburg airport (O.R. Tambo International Airport).

Hytera supplied 2,000 TETRA PT580H Plus hand portable radios. The PT580H Plus has the highest sensitivity receiving path in its class and the highest transmitter output power at 3W. The high transmit output power coupled with the radio's noise cancelling technology ensures that users can communicate across the whole airport and hear clear audio despite the noisy environment.

Hytera also supplied 150 PTC760 multi-mode advanced radios, which support TETRA and cellular 4G LTE, along with Wi-Fi and Bluetooth. These radios enable the users to speak to both TETRA radio and to cellular smart phone users.

The Hytera professional TETRA trunking communication solution is able to meet the stringent safety and security demands required by international airports and airlines. TETRA supports end-to-end encrypted communications, which ensures communications cannot be overheard and helps to reduce the security risks of the current MPT1327 system.

The Hytera TETRA network also offers high levels of reliability and availability thanks to its ability to provide redundancy solutions at all levels including core switching centre redundancy sited in different geographic locations. TETRA offers not just half-duplex push-to-talk calling, but also full-duplex calling so it can be integrated with PABX and PSTN telephony systems and cellular mobile networks.

Hytera unified dispatch solutions enable dispatchers to communicate via multiple networks, enabling a faster and more efficient coordination of any response to an emergency situation at the airport.

## The Results >>>

Hytera's TETRA solution has overcome the capacity and quality limitations of the existing analogue trunking network. It has helped SAAT improve its dispatch and accountability and its ability to respond quickly and efficiently in an emergency situation. SAAT has also been able to improve the return on its investment and gain a revenue stream from the TETRA system by renting out access to the network to subcontractor organizations at the airport.

### Voice from Customers

"Hytera had the system built in China, flown to South Africa and installed at SAA Technical. Hytera has provided technical training to SAA staff in China and the factory visits conducted by myself and my team were of an exceptional standard with a high quality of professionalism. I am very satisfied with Hytera South Africa service and the Hytera equipment has exceeded my expectations. It is indeed a good story to be told."

—Zak Liyaqat-Ali, Sponsor of the TETRA Migration Project



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