Southampton UK, November 2004. Real-time video offers the best method of providing public safety officers with information on serious incidents, and of providing protection for individuals or property. Transmitting true high definition, full motion images will be the domain of fixed high-speed data links for some time yet. Although the latest IP cameras enable a reduction in infrastructure costs, for best definition they still require a fixed link. In many cases such fixed links are impractical and an alternative must be sought.

For public safety personnel on the move fixed links are not an option. Can TETRA in its current release provide such an alternative? The maximum data rate available over a single dedicated channel is 7.2 kb/s, without any form of error prevention encoding. However, when error checking and redundancy are added, the true data throughput approaches a rate close to 3 kb/s.

To prove the practical transmission of real-time video information over low data rate channels, Multiple Access Communications Limited (MAC Ltd) has developed a transmission protocol that adapts state of the art compression techniques. Compressing video images requires a high processing capability, achievable using a laptop or a dedicated processing interface between the camera and the radio. At the receiver, decompressing and rendering of the video signals can be easily achieved using a lower capability processor, such as that in a TETRA terminal or personal digital assistant (PDA).

This exciting development will be investigated further in a trial about to be undertaken over a live TETRA wireless link to simulate real operational usage.

For more information and a demonstration visit MAC Ltd at booth E3 of the exhibition.

Multiple Access Communications Limited (MAC Ltd) is a privately owned, independent wireless technology consulting and product development company specialising in all areas of mobile radio communications. The company was established in 1986 and it is based on the Chilworth Science Park in Southampton, UK. MAC Ltd has established itself as a recognised expert in a wide range of wireless technologies, including GSM, EDGE, cdma2000, UMTS, TETRA, and WiFi.

MAC Ltd operates internationally and its customer base includes network operators, equipment manufacturers, government departments and semiconductor houses from around the world, in particular Europe, North America and the Far East.