STI Engineering
Communications & Electronics Engineers

incorporating **RFInnovations**
Leaders in Wireless Data

- **Broadcast quality video**
- **Real-time monitoring**
- **Good SINAD in hostile environments**

Remote Control for Improved Mine Safety

In the mining sector underground excavation is a vital yet difficult and often dangerous task. A majority of the work is performed in hazardous environments several kilometres underground, with the constantly looming dangers of falling rocks and mud rushes. Combined with recent mining disasters, these hostile environments have made operator safety a growing concern.

STI Engineering

STI Engineering Pty Ltd

ABN 97 065 523 579

22 Boulder Road Malaga 6090
Western Australia

Telephone: +61 8 9209 0900
Facsimile: +61 8 9248 2833
Email: sales@stiengineering.com.au
Web: www.stiengineering.com.au

In order to counter this potential safety hazard, STI Engineering has successfully developed a complete remote video system kit with Western Australia based Remote Control Technologies (RCT). The system is used to remotely control underground machines.

Part of the RCT Control Master© teleremote system, the RFI-660 range allows for broadcast quality video and sound to be wirelessly transmitted from a camera mounted to the machine, back to one or multiple TV monitors in a control room.

The system permits the operator, located far away from immediate danger, to monitor every movement of the machine. The true real-time video quality means improved driver reaction as the operator receives a real picture of machine movements and changing tunnel conditions.

At the transmitting end of the system, the RFI-660S video exciter accepts a standard analogue camera input and built-in or external microphone. The signal is modulated into RF, amplified then transmitted through a vehicle antenna.

At the receiving end, the RF signal is given a significant boost by in-line amplifiers. The signal is then displayed on a normal television display, with end results of improved personnel safety and excavation productivity.