



CONSPEC[®]

Mine Rescue Team
Communication System

Characteristics

- Medium Frequency
- Inductive Radio Components
- MSHA Approved
- Easy to Deploy
- Battery Powered

Users

- 75% of New South Wales, Australia Mines Rescue Centers – at present
- MSHA - purchased set for Beckley, WV in mid-1990's
- Several (2?) Mines in U.S.

Typical Deployment

- 3 Handheld Radios on Rescue Team
- 1 Section Radio at Fresh Air Base







NETWORK SWITCH

LAFARGE
NORTH AMERICA
SUGAR CREEK MINE
RESCUE TEAM

PINITE

CM

AD



COLORADO SCHOOL
OF MINES



U.S. DEPARTMENT OF THE
INTERIOR
BUREAU OF MINES

RESEARCH COOPERATIVE AGREEMENT
USBM NO. C029001 CSM NO. 4-40150

IN SITU RECOVERY OF MINERALS
- SOLUTION CONTROL SITE



Present Status

- 1993 Design Presently Deployed
- 2005 Design in Prototype Testing
- May 2006 Expected Completion for A&CC
Intrinsic Safety Submission

Where MSHA Can Help

- Prioritize (Fast-Track) Approval Process
- Minimize Approval Costs at A&CC
Small Market, Small Companies
- Place Less Emphasis on Trophy Competition. Place More Emphasis on Realistic, Site-Oriented Training



CONSPEC[®]

Vehicle and Personnel Tracking System

Characteristics

- Low-Power, Short-Range, Burst Transmitters (Tags)
- Operate at UHF
- Stationary Tracking Receivers
- Part of Atmospheric Monitoring System

Deployment Methods

Transmitter

- Magnetic Mount to Machines
- Can be Modified and Submitted to MSHA as a Smaller Unit. (Stand-Alone or Cap Lamp)



Receiver

- Attached to 4-Conductor, Copper AMS Cable. Power and Data.
- Strategically Placed in Mine
- Typical Range ~ 100 feet
- Logs of Station Activity Available on Surface Computer



CONSPEC[®]

TRACKING RECEIVER ACCESSOR
Part Number: P2673 S/N: D0606002

Planned Improvements

- Portable Receiver for Use With Search and Rescue Operations.

Important Design Criteria

- System Must be:

Intrinsically Safe

Reliable

Economical

Rugged

Accurate Within Reason

Functionally Simple