







Milford and Knobs Flat VMS in Fiordland National Park
Neil Garnett Opus International Consultants

Knobs Flat VMS

Milford and Knobs Flat VMS in Fiordland National Park

A triumph for:


1. Safety through technical innovation
2. The environment through visual impact mitigation measures

Success was made possible by personal relationships and generosity of spirit that forged the basis for success





Milford VMS





1. Safety Benefits and Technical Innovation

- “Lifeline” source of information after travellers leave Te Anau or Milford
- Real time information
- Enhances avalanche management programme
- Enhances management of rockfall incidents
- Enhances management of the Homer Tunnel




1. Safety Benefits and Technical Innovation






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Milford comms via:


- 4 VHF hops to DoC comms hut at Milford Airport,
- VDSL over 1.5km of copper wire to Milford Lodge,
- 300m of fibre optic to the Milford VMS.

Knobs Flat comms via the GE23 satellite.






1. Technical Innovation – Climate & Environment Challenges








1. Technical Innovation – Climate & Environment Challenges

“The communications challenges were even greater than the provisioning of power and in my view the more unique element given the use of satellite as the primary communications. VMS Ltd has never before or since supplied equipment to a project that used satellite as the means of communications for variable message signs.”




Mark Johnson, Technical Director Variable Message Signs Limited, UK.



Salient Satellite Facts:

- The General Electric GE-23 satellite was launched from Baikonur Cosmodrome in Kazakhstan 29th December 2005.
- Vostok 1 carrying Yuri Gagarin was launched from Baikonur Cosmodrome April 1961.
- GE-23 is in geostationary orbit 35,790 kilometres above the centre of earth.
- Posting a message on the Knobs Flat VMS involves a simple network management protocol (SNMP) send-and-response packet travelling 144,000 kilometres. It takes 1.4 sec travelling at ~ 100,000 km/second compared to the speed of light at 299,792 km/second!


2. Mitigating Effects on the Natural Environment












2. Mitigating Effects on the Natural Environment





3. Personal Relationships

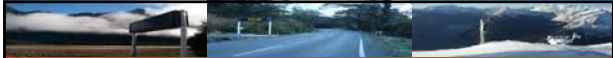
- Department of Conservation (Beth Masser)
- Milford Lodge (Mike McConachie)
- Eglinton Experience Ltd (PC Taylor)
- MSDA (Andrew Welsh)
- Milford Power Holdings (John McCutcheon)
- Downer (Ann Carran and Graham Clarke)
- NZTA, Opus, and ASL




Stakeholder Comments

"The VMS are a very important and positive step forward in improving the safety of Milford Road."



Sergeant T. A. Hollebbon, Te Anau Police.

Stakeholder Comments

"The performance of these signs, when combined with their ease of operation and flexible messaging, has exceeded our expectations - we are delighted with the result and after only one season's use we find ourselves not sure how we could manage the network without them."

Ann Carran, Manager Downer Te Anau.

Stakeholder Comments

"The tourist loses all forms of communication including radio and cell phone. The VMS is the lifeline communication to alert them to issues as they drive along the road.

To remotely communicate in a real time way with those travelling on the road has been a real benefit to managing traveller expectation. Instant changes to timing can be effectively communicated."

Peter Robinson, Area Manager NZTA Southland.

