



QUARTZ HILL ANNUAL REPORT – 2009 YEAR

Our station at Quartz Hill was dismantled in 4Q 2007 to make way for Meridian Energy to construct a wind farm in the area. Plans for rebuilding the station have been on hold since that time while we sought to gain more information and certainty about the technical compatibility of amateur radio HF operations with the RF noise that would be generated by the wind farm.

The wind turbines were commissioned during 2009 and the wind farm is now fully operational. Members of the our club visited the West Wind project site on 10 May and 15 August 2009 to measure the level of HF radio frequency noise radiated by the turbines. A report on the noise measurement work is posted on our web site at www.zl6qh.com .

The report concludes that it will not be possible to operate an amateur radio HF station in the vicinity of Quartz Hill due to the high level of radiated noise interference from the wind turbine infrastructure. On 80M the measured level of radiated noise is approximately 50 dB greater than that sought for weak signal HF amateur radio communications. Our analysis of the measurement data suggests that an amateur radio station would need to be separated from the nearest turbines by a distance of at least several kilometres in order to reduce the interference to the desired level.

Clearly, we are disappointed at not being able to continue the amateur radio operations at Quartz Hill, as it has been a fantastic radio location and a great source of enjoyment and inspiration for us all. However, all good things do come to an end, and we have always understood that RF noise from the wind farm could affect our ability to continue using the site.

The Committee is now searching for an alternative site in the wider Wellington region that will allow us to continue the legacy started at Quartz Hill. Our goal is to build a new HF station that has the potential to equal and surpass the achievements at ZL6QH. Key considerations for selecting a new site include:

- A low angle of elevation to the horizon, preferably less than 5 degrees, in all directions.
- Separation from potentially significant radio frequency noise sources like high voltage transmission lines, industrial areas, and wind farms.
- All weather 2WD access
- Preferably within 1 hour drive from Wellington city, but if necessary we will look further afield.
- Room to erect several guyed masts and poles, potentially up to around 60 metres in height.
- Availability of AC power
- Access to accommodation.
- Longer term tenure.

We will also be giving consideration to the most appropriate governance and funding arrangements for our operations at a new site, noting that these may need to be different to the arrangements for Quartz Hill.

The two 20 ft shipping containers that we have been using to store some of our materials have been kindly donated by Meridian Energy to the club. We also have an agreement with Meridian Energy to continue storing our assets at Quartz Hill until 30 June 2010. There will be further working bees at Quartz Hill over the next couple of months as we complete the tidying up of our assets in preparation for their removal from the site. One of the remaining tasks is the lowering and dismantling of the 22 metre steel mast that is still standing. Meridian Energy is arranging a crane to assist us with this task.

We also reached agreement with Meridian Energy to settle the losses incurred due to contractors incorrectly removing and damaging most of our wooden poles. A payment of \$14,000 has been made to the club in recognition of these losses. The damaged poles have been sold to other parties for a total sum of \$620.

We are continuing to acquire masts and other materials that will be useful in building a new station. The 7 element 10M yagi beam and lattice mast from the old ZM2K contest site have been moved to Quartz Hill. A 26 metre lattice mast from the Mana Coast Guard mast has also been moved to Quartz Hill but it does require some remedial work to repair cracks along the seam welds in two of the mast sections.

Our accounting records for the year ending 31 December 2009 show the expenditure being \$322.14 and income \$15,874.50, to produce a net operating surplus of \$15,552.36. The number of financial supporters in 2009 was 25, down from 27 in 2008, 28 in 2007 and 36 in 2006. The closing bank balance was \$21,049.29. There was little expenditure over the past year while operational activities have been suspended, but it is expected to increase sharply again over the next year or two, as we invest in the building of a new station.

A total of 171,733 QSOs was logged at ZL6QH and we continue to receive a regular stream of requests for QSL cards. Another 510 QSL cards were processed over the past year, bringing the total number of cards dispatched up to 35,797.

Thankyou to everyone who has provided support and since we started our activities at Quartz Hill in 1997. In particular we acknowledge the support of Meridian Energy (and its predecessor ECNZ) in allowing us to access and use the Quartz Hill site on very reasonable terms. Hopefully our next landlord will be as helpful as Meridian Energy has been. We are also grateful to the Quartz Hill Supporter Group members for their ongoing contributions of finance, time and other resources; ZL1AXG for hosting the web site; ZL2AOH for his long standing services as QSL Manager; and the various members of the Quartz Hill Management Committee for their ongoing advice and practical contributions.

2010 will be an exciting and challenging year as we make arrangements to move to a new site, and hopefully start building a new station. It is an ambitious project and we look forward to the ongoing support of the club and the wider amateur radio community to help us turn this new dream into a reality.

Brian Miller ZL1AZE

Chair of Quartz Hill Management Committee (ZL1AZE, ZL2AOH, ZL2AMI, ZL2BCW, ZL2AOV, ZL2CA, and ZL2ACG)

15 January 2010