



QUARTZ HILL ANNUAL REPORT - FEBRUARY 2006

It is 9 years since we first started developing the amateur radio station at Quartz Hill. The station continues to be a source of challenge and enjoyment for everyone involved - whether it be an interest in contesting, working DX, carrying out technical experiments, project and maintenance activities, or just being out in the rugged coastal environment

Wellington City Council has recently granted resource consent for Meridian Energy to build a wind farm at Quartz Hill. This decision is subject to various appeals that will be heard in the Environment Court later this year. In the meantime, it is likely that we will be able to continue using the existing infrastructure for up to another 12 months.

We are working with Meridian Energy on future options and are hopeful that it will be possible to rebuild and continue using the station after the wind farm is built. A critical issue is the level of HF noise that will be generated by the wind farm infrastructure. We recently conducted some measurements at Meridian Energy's Te Apiti wind farm, and found little evidence of HF noise. Recent comments from European radio amateurs have also been positive, including several examples of amateur stations operating alongside turbine structures without interference. Although these findings are encouraging, we need to be cautious about translating them to our situation, as a different turbine technology is likely to be deployed at Quartz Hill.

The number of financial supporters continues to grow and has now reached 36, up from 34 in the previous year. We bid farewell to Chris ZL1CT (GM3WOJ) who returned to Scotland and Mike ZL1AXG who moved to the USA. As usual, the annual BBQ and open day on 15 January 2006 proved to be a popular event with 27 people (including 4 children) attending.

We were all saddened by the death of Andrew Corney ZL2BBJ on 23 May 2005. Andrew was a keen supporter of Quartz Hill activities and an inaugural member of the Management Committee. He worked closely with Bob ZL2CA on the LF tests at Quartz Hill and was also responsible for designing and building the high power baluns that are used to connect the open wire feeders to 50 Ohm coax. Andrew's friendship, wise advice, practical ingenuity and extensive technical knowledge are greatly missed.

The antenna farm has been expanded over the past year to include a 20M 5-element yagi for the long path to Europe, a 160M sloping dipole for the short path to Asia/Europe, and an 80M sloping dipole aimed at the short path to USA. Work is also in progress to install a set of antennas for VHF and UHF bands. The current layout of the antenna farm is shown on the second page of this report.

The equipment inventory has been expanded to include an Amp Supply LK500-ZB linear amplifier, a Drake MN2700 tuner, a Dentron MT2000A tuner (donated by W2VJN) and a comprehensive tool kit (donated by Andrew Corney's estate). The existing Ameritron AL-811X and Yaesu FL-2100B linear amplifiers have been sold to offset the cost of purchasing the new items.

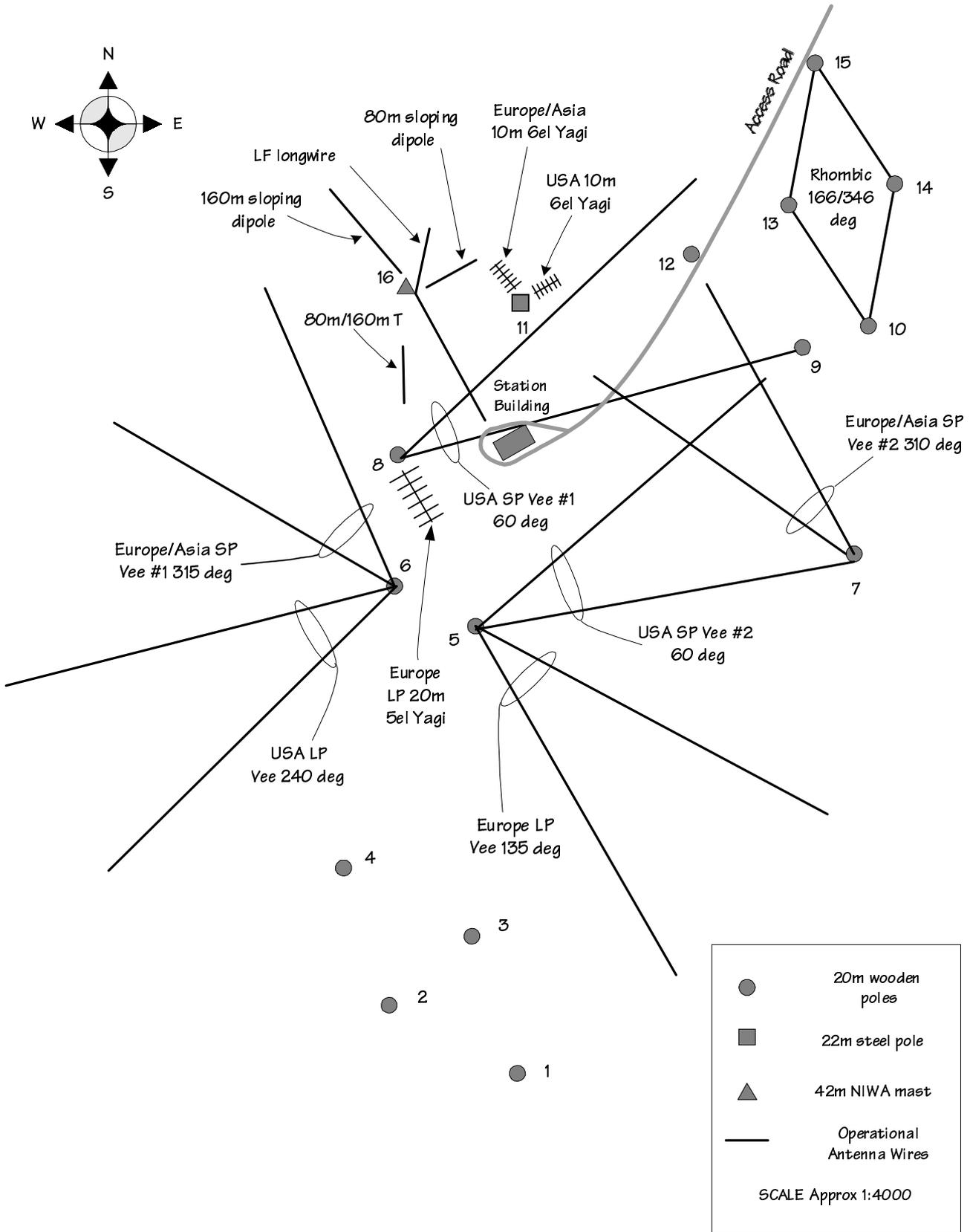
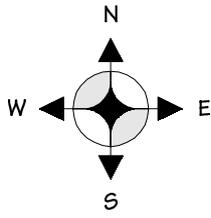
Quartz Hill continues to post the highest scores from the South Pacific in major international HF contests, but scores were generally down on those posted in the previous year, due to depressed solar flux levels and the associated reduction in QSOs on the higher bands. On the other hand, there has been greater activity on the lower bands, and Quartz Hill has recently provided many stations with their first ZL QSO on 160M. The total number of QSOs logged by ZL6QH is now 145,288 and 27,758 QSL cards had been dispatched.

Bob ZL2CA and other LF enthusiasts conducted further LF transmissions from Quartz Hill on two occasions, but unfortunately the conditions did not allow any new records to be established.

The Quartz Hill account is in good shape with a net surplus of \$944.65 being recorded for the year to 31 December 2005. Expenditure over this period was \$2,145.55 and the income was \$3,090.20. The balance brought forward was \$3,067.64. The surplus is due to Meridian Energy delaying their invoice for the lease/power costs, antenna farm maintenance expenses being lower than anticipated, and the level of donations being higher than anticipated.

Thank you to everyone involved for your support over the past year - in particular Meridian Energy for access to the property, Vertex Standard for the supply of QSL cards, Quartz Hill User Group members for their contributions (financial and otherwise), ZL1AXG for hosting the web site, ZL2BSJ for his services as Finance Manager, ZL2AOH for his services as QSL Manager, ZL2AMI for his services as Bookings Manager, and the other members of the Management Committee (ZL2BCW, ZL2AOV, ZL2CA, and ZL2BAP [seconded to replace ZL2BBJ]) for the various other supporting roles.

Brian Miller ZL1AZE, Chair Quartz Hill Management Committee, 20 February, 2006



Quartz Hill Amateur Radio Station: Antenna Farm

antenna17.vsd, Updated by Brian Miller ZL1AZE: 14 October 2005