

# AC Dipole status

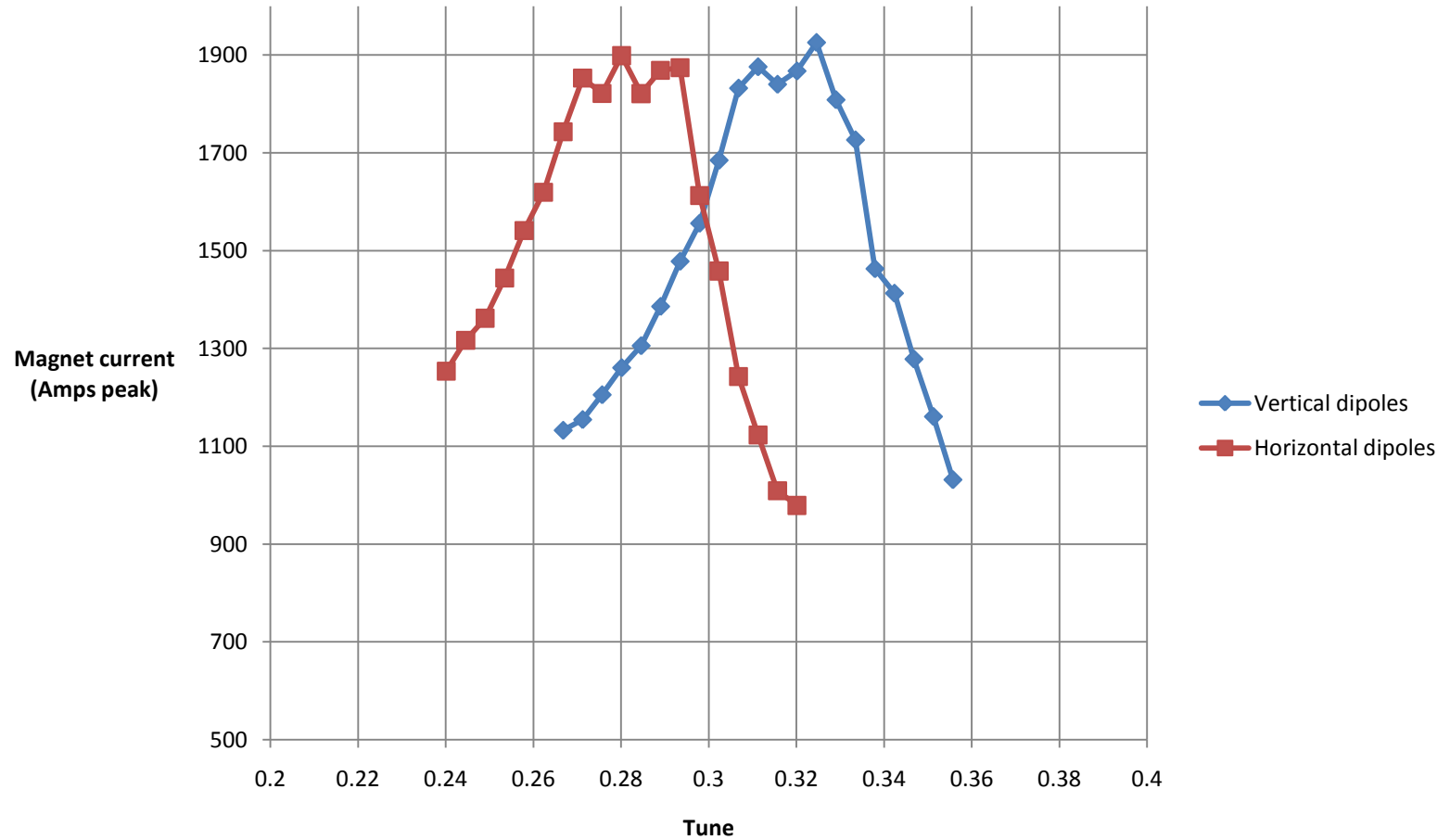
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# Spectral quality

- Tests this Summer showed some signal quality issues:
  - 100 Hz side bands.
    - Discovered to be caused by the Ross Relay.
    - Found a cure: Solenoid Saver®.
  - Harmonics (even and odd).
    - Some non-physical high frequencies present: acquisition artifact?
    - Nothing done so far, but we can't reproduce it! Possible explanation: recent changes in filtering.

# Bandwidth



# Software

- Tested in the CCC (see Verena's talk).
  - Added protection to avoid amplifier current and voltage limiting kick-in.
  - Integrated with general analog signal viewer (OASIS).

# Misc

- Burnt one USB port in a front-end PC.
  - We were using non-isolated USB-RS485 converters to control the amplifiers.
  - Went to opto-isolated RS-485 cards.
  - Took the opportunity to isolate driver signal (from PCI card to amplifiers) as well.
  - The power part and the control part are now completely isolated.

# Outstanding issues

- Improve spectral quality:
  - Install solenoid savers in LHC (January?).
  - Find source of harmonics if they are really in the magnet current.
- Improve bandwidth:
  - Currently favored solution: audio STATCOM (not before end 2010).

