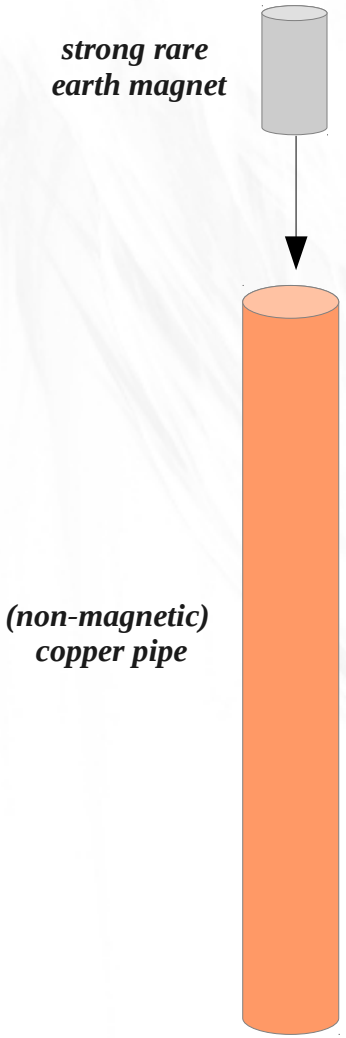
Ye Olde Magnet Falling Through a Metallic Pipe



A copper pipe may not be magnetic, but that doesn't mean it isn't influenced by magnetic effects. If you drop a magnet down a copper pipe, the magnet will fall much more slowly than you would expect.

- This is an example of *Faraday's Law of Induction*, which is the basis for electricity generators.
- The falling magnet induces a circular current inside the copper pipe.
- The induced current inside the copper pipe creates *its own* magnetic field.
- The magnetic field created by the copper pipe current, repels the falling magnet causing it to fall more slowly.
- *Did you get all that?*
- *ATLAS uses enormous superconducting wires to carry currents that provide large magnetic fields to bend the paths of charged particles.*