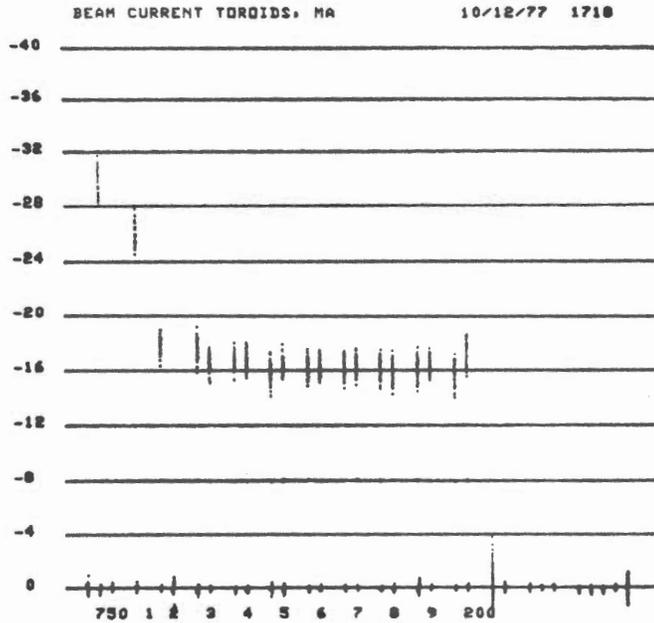
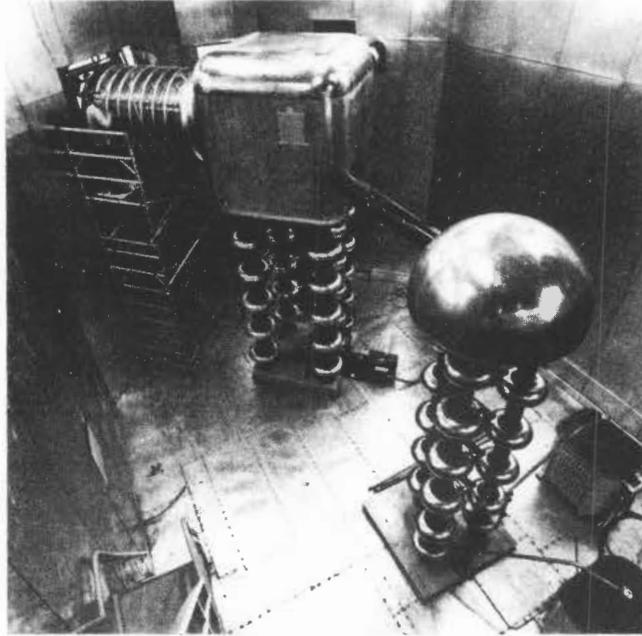


H⁻ BEAM

A significant milestone was achieved recently when the first negative-ion beam was accelerated in the Linac. A peak current of 17 mA of H⁻ was accelerated to 200 MeV over a 50-μsec pulse length, a total charge of 0.85 μCoulomb. This first observed beam is more than half the charge of the final goal, 1.4 μCoulomb. The observed charge can be increased easily by increasing the pulse length. A measurement of the emittance at 200 MeV was not possible because the computer program did not seem to recognize negative beam. It is planned to utilize negative-ion injection and stripping in the Booster to increase beam intensity.



Fast time plot of many pulses of H⁻ beam through the Linac.



The second Cockcroft-Walton is installed and operating for negative hydrogen ions.