

How We Do Business at the AGS

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During the last 38 years the Alternating Gradient Synchrotron has evolved from a High Energy Physics facility consisting of a 50 MeV Linac and 33 GeV proton synchrotron that utilized internal targeting, to a complex of accelerators that include a pair of 15MV Tandem Van DeGraff electrostatic accelerators, a 200 MeV drift tube Linac, a 2 GeV rapid cycling Booster Synchrotron, and the AGS which itself serves seven fixed external production target stations. As many as six target stations are used during slow extraction and one is used during fast extraction. The AGS is expected to continue its role as a Kaon factory until FY'00 when the Relativistic Heavy Ion Collider (RHIC) begins servicing the Heavy Ion Physics community. The AGS has served the Heavy Ion Physics community for the past ten years for fixed target research and has helped pioneer physics with Polarized Protons at high energies. Since 1960, the intensity of the AGS extracted beam has increased 3 orders of magnitude to a record 63 tera protons per cycle. When it is not providing protons for the AGS Booster, the Linac services the Brookhaven Linac Isotope Production (BLIP) facility which produces radio-nuclides for nuclear medicine. The future holds the possibility of a Booster Applications Facility to serve the radio-biology community and, of course, RHIC. How we put these pieces together is the subject of the poster "How We Do Business at the AGS"