imately 40 microgram/cm^2, was evaporated onto the surface of each phototube. In the space between xenon tube and photomultipliers, we deliberately employed an air gap to avoid any possible source of background due to Čerenkov radiation.

The whole counter assembly was carefully shielded against magnetic fields with a combination of Co-netic and Netic materials, enclosed in a rectangular steel box, and placed on top of the accelerating solenoid.

Pulses from the anodes of both photomultipliers were fed into a double-coincidence circuit via attenuators. The output of the coincidence circuit was recorded on a scaler and also used to trigger the sweep of a Tektronix 517 oscilloscope; the vertical input signal consisted of the two dynode pulses of both photomultipliers with time delays appropriate for a sequential display. The time display covered an interval of 200 nanoseconds. By adjusting attenuators on the anode pulses, we set a discrimination level for the coincidence. For each event which satisfied the coincidence condition, a picture was taken of the oscilloscope screen with a Polaroid camera. Thus, each event could be studied at leisure, pulse heights measured, and pulse shapes and time correlations examined.

In view of the uncertainty on the mobility of monopoles as discussed in Sec. 2, it seemed to be desirable to know the time relationship between the beam spill-out and the detection of an event. This was accomplished with an accuracy of 1 millisecond by arranging for the coincidence output to turn off a scaler counting a 1 kc signal, the latter signal commencing at zero-time of the AGS acceleration period. Beam spill-out occurred approximately one second after zero-time and had a duration of 15 milliseconds. The precise spill-out time was monitored