The charge exchange reactions $^{57,58}\text{Fe}(p,n)$ and $^{58}\text{Fe}(p,n)$ have been studied at 120 MeV, using the IUCF time-of-flight facilities. Energy spectra up to about 18 MeV excitation energy have been obtained at $\theta = 0^\circ, 4^\circ, 8.2^\circ, 10.5^\circ,$ and $14.6^\circ$. The $^{58}\text{Fe}$ target was a $(40 \pm 1) \text{ mg/cm}^2$ foil, 91.9\% enriched in $^{58}\text{Fe}$ and 8.1\% $^{57}\text{Fe}$. The $^{57}\text{Fe}$ target was a 90.24\% enriched foil $(37.7 \pm 1.0) \text{ mg/cm}^2$ and 9.5\% $^{56}\text{Fe}$. Five large volume neutron detectors were located at 130 meters along the zero degree port of the beam swinger. Sub-nanosecond time resolution equivalent to an energy resolution of about 250 KeV has been obtained.

Angular distributions for low-lying discrete transitions up to 5 MeV excitation energy have been measured. For higher excited states, neutron angular distributions in 1.0 MeV energy bins have been obtained. The data have been used to estimate the Gamow-Teller strength up to about 16 MeV excitation energy in $^{57,58}\text{Co}$.

For the $^{58}\text{Fe}(p,n)^{58}\text{Co}$ reaction a $B(GT) = 13.5 \pm 2.0$ has been estimated, in units such that the free neutron has a $B(GT) = 3.0$. The sum rule $S(\beta^-) - S(\beta^+) = 3(N-Z)$ gives a lower limit $S(\beta^-) = 18$. If we assume a value $S(\beta^+) = 8 - 10$ (based on Ni isotopes systematics) the calculated $S(\beta^-)$ is about 26 - 28, which would imply that up to 18 MeV excitation energy the $(p,n)$ reaction excites about 50\% of the predicted $S(\beta^-)$ value. This quenching agrees with values obtained in other $1f_{7/2}$ nuclei.