The visible and ultraviolet electronic transitions of AgCl were recorded at high resolution with the Fourier transform spectrometer associated with the McMath-Pierce Solar Telescope at Kitt Peak, AZ. The ultraviolet system was previously observed and assigned as a $0^+ - X^1\Sigma^+$ transition,\(^a\) while the visible transition is a new, violet-degraded electronic system near 25,500 cm\(^{-1}\). A similar, violet-degraded visible transition in AgF was recently observed,\(^b\) and high-level \textit{ab initio} calculations\(^c\) on AgF have predicted that the excited state of this transition is a $3\Sigma^+_{1}$ state. For the ultraviolet transition, the excited AgCl molecules were produced in a microwave discharge operated with 70 W absorbed power and at a total pressure of approximately 2 torr. For the visible system, a King-type carbon tube furnace was charged with AgCl powder and heated to 1900 C to produce the excited AgCl molecules. The molecular constants for the states involved will be presented.