The GlueX DIRC upgrade and its utilization in the upcoming high intensity experiments

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The GlueX experiment is a photoproduction experiment located in Hall D at Jefferson Lab (JLab). GlueX uses the 12 GeV electron beam from the Jlab accelerator to produce a 9 GeV, linear polarized photon beam that is incident on a stationary target. The primary goal of the GlueX experiment is to study the hadronic spectrum, especially states with gluonic excitation (hybrids) and other states that exist outside the quark model. With the completion of data taking for the initial low intensity phase of the GlueX in 2018, the detector has undergone upgrades in preparation for the high-intensity phase which begins in Fall 2019. One of these upgrades is the inclusion of a new PID detector known as the DIRC (Detection of Internally Reflected Cherenkov light). The GlueX DIRC is designed to aid in the separation of kaons from pions in order to improve the experiments ability to study the hadronic spectrum in states with strange quark content. This talk will give an overview of the installation and commissioning of the GlueX DIRC, as well as some examples of analyses that will make use of the GlueX DIRCs kaon-pion separation power.