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$K^{*0}(892)\Lambda$ **&** $K^{+}\Sigma^{-}(1385)$ **Photoproduction on the Deuteron** PAUL MATTIONE, Rice University, DANIEL CARMAN, Jefferson Lab, CLAS COLLABORATION — Measurement of the spectrum of excited baryons and their decay is an important part of the effort to understand the structure of the nucleon. Coupled-channel analyses of pion, eta, and kaon production reactions are capable of extracting more information on the excited hadron resonances than simply using a partial-wave analysis of each of the reactions individually. However, these analyses are currently limited due to the missing polarization observables in these reactions. This will result in improved quark model predictions of the large mass N^* states, where wide resonances and insufficient data make it difficult to differentiate the states from the background. In this vein, the CLAS g13 experiment at Jefferson Lab collected 50 billion events on deuterium using circularly and linearly polarized photon beams. It's predicted that the s-channel production of the $\gamma n \to K^{*0}(892)\Lambda$ and $\gamma n \to K^{+}\Sigma^{-}(1385)$ reactions will couple non-negligibly to the decays of several of the excited N^* states. These include the $N^*(1945)$, $N^*(2070)$, $N^*(2090)$ for $K^{*0}(892)\Lambda$ production, and the $N^*(1980)$ and $N^*(2095)$ for $K^{+}\Sigma^{-}(1385)$ production. With data from the CLAS g13 experiment, preliminary results from studies of the $\gamma D \to K^{*0}(892)\Lambda(p)$ and $\gamma D \to K^{+}\Sigma^{-}(1385)(p)$ reactions will be shown.

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