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**Search for the Pentaquark Partners:  $\Sigma^0$ ,  $N^0$  and  $\Theta^{++}$**  YI QIANG, MIT, JEFFERSON LAB HALL A COLLABORATION, E04-012 COLLABORATION — Recent observations of a narrow, exotic, baryonic state, the  $\Theta^+$ , have generated great experimental and theoretical interests. The  $\Theta^+$  has been predicted to be a 5-quark state which is a member of an antidecuplet of the flavor group  $SU(3)_F$ . If the  $\Theta^+$  is confirmed, the other members of this antidecuplet which are predicted to be narrow as well are also very likely to be observable. The Jefferson Lab experiment E04-012 focused on searching for two non-exotic antidecuplet partners,  $\Sigma^0$  and  $N^0$ , and one exotic isospin partner,  $\Theta^{++}$ , in electro-production,  $H(e, e'K^-)X$  and  $H(e, e'K^+)X$ , with  $Q^2$  around  $0.2 (GeV/c)^2$  and  $\theta_{\gamma K(\pi)} < 20^\circ$ . Using the two Hall A High Resolution Spectrometers allowed us to perform a high-resolution (FWHM=3.0 MeV) scan in the missing mass spectra. Data covering the range in missing mass of 1560-1860 MeV for the  $\Sigma^0$ , 1510-1900 MeV for the  $N^0$  and 1460-1610 for the  $\Theta^{++}$  have been obtained. The status and prospects will be discussed.

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